

APPENDIX F: TRAFFIC STUDY

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**CALIFORNIA BAPTIST UNIVERSITY
TRAFFIC IMPACT ANALYSIS
CITY OF RIVERSIDE
SEPTEMBER 6, 2018
(JOB NUMBER: 15620-DG)**

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California Baptist University

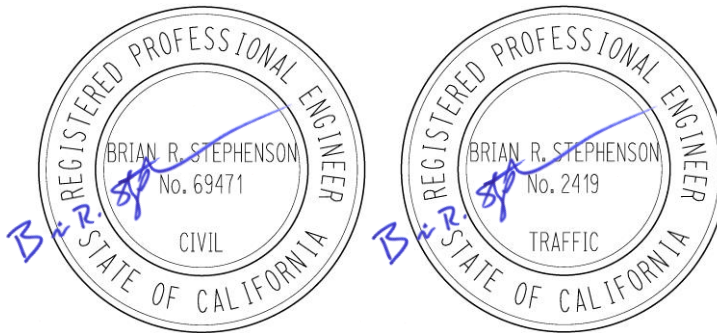
Traffic Impact Analysis

City of Riverside

September 6, 2018

Prepared for:

California Baptist University
8432 Magnolia Avenue
Riverside, CA 92504



Prepared by:



Traffic Division

Job Number 15620-DG

TABLE OF CONTENTS

Introduction	1
Project Description	1
Existing Transportation Conditions.....	4
Existing Traffic Volumes	5
Traffic Analysis Methodology.....	5
Existing Operations.....	8
Existing + Ambient Operations	14
Project Traffic Generation.....	14
Project Traffic Distribution/Assignment	20
Existing + Ambient + Project Operations.....	20
Cumulative Traffic	26
Existing + Ambient + Cumulative + Project Operations	30
General Plan Buildout Operations.....	36
Conclusions/Recommendations.....	44
References	49

Appendices

Appendix A – Approved Scoping Agreement	
Appendix B – Traffic Volume Counts	
Appendix C – Trip Generation Calculations	
Appendix D – City of Riverside Circulation Element	
Appendix E – Intersection Calculation Sheets	
Appendix F – City of Riverside Roadway Capacity	
Appendix G – Cumulative Traffic Volumes	
Appendix H – Buildout Analysis	
Appendix I – Queuing Analysis	
Appendix J – Ramp Merge/Diverge Analysis	
Appendix K – Existing + Project Analysis	
Appendix L – Fair-share Calculations	
Appendix M – Queuing Exhibits	
Appendix N – Adams Street Widening Feasibility Exhibit	

Tables

1.	Existing Intersection Operations (Year 2016)	9
2.	Existing Roadway Segment Operations (Year 2016)	11
3.	Existing Queuing (Year 2016)	12
4.	Existing Ramp Merge/Diverge Analysis (Year 2016)	13
5.	Existing + Ambient Intersection Operations (Year 2025)	16
6.	Existing + Ambient Roadway Segment Operations (Year 2025)	17
7.	Existing + Ambient Queuing (Year 2025)	18
8.	Existing + Ambient Ramp Merge/Diverge Analysis (Year 2025)	19
9.	Project Traffic Generation	21
10.	Existing + Ambient + Project Intersection Operations (Year 2025)	25
11.	Existing + Ambient + Project Roadway Segment Operations (Year 2025)	27
12.	Existing + Ambient + Project Queuing (Year 2025)	28
13.	Existing + Ambient + Project Ramp Merge/Diverge Analysis (Year 2025)	29
14.	Existing + Ambient + Cumulative + Project Intersection Operations (Year 2025)	32
15.	Existing + Ambient + Cumulative + Project Roadway Segment Operations (Year 2025)	33
16.	Existing + Ambient + Cumulative + Project Queuing (Year 2025)	34
17.	Existing + Ambient + Cumulative + Project Ramp Merge/Diverge Analysis (Year 2025)	35
18.	General Plan Buildout Project Intersection Operations (Year 2025)	40
19.	General Plan Buildout Project Roadway Segment Operations (Year 2025)	42
20.	General Plan Buildout Project Queuing (Year 2025)	43
21.	General Plan Buildout Project Ramp Merge/Diverge Analysis (Year 2025)	45

Exhibits

1.	Project Area Map	2
2.	Site Plan	3
3.	Existing Transportation Conditions (Year 2016)	6
4.	Existing Traffic Volumes (Year 2016)	7
5.	Existing + Ambient Traffic Volumes (Year 2025)	15
6.	Project Traffic Distribution Percentages	22
7.	Project Traffic Assignment	23
8.	Existing + Ambient + Project Traffic Volumes (Year 2025)	24
9.	Existing + Ambient + Cumulative + Project Traffic Volumes (Year 2025)	31
10.	General Plan Buildout Transportation Conditions (Year 2025)	37
11.	General Plan Buildout Traffic Volumes w/o Project (Year 2025)	38
12.	General Plan Buildout Traffic Volumes w/ Project (Year 2025)	39

CALIFORNIA BAPTIST UNIVERSITY
TRAFFIC IMPACT ANALYSIS
City of Riverside
September 6, 2018

INTRODUCTION

The following Traffic Impact Analysis (TIA) has been prepared to determine any traffic-related impacts within the project area roadways and intersections due to the proposed expansion of California Baptist University. The university is located at 8432 Magnolia Avenue on a 132-acre campus, located between Magnolia Avenue to the north, Adams Street to the east, Monroe Street to the west, and Diana Avenue to the south. Just south of the campus, the 91 freeway runs directly parallel to Diana Avenue. **Exhibit 1** shows the project area map.

This TIA was prepared following the City of Riverside Public Works Department *Traffic Impact Analysis Preparation Guide* publication, dated January 2016. Refer to **Appendix A** for the approved scooping agreement.

PROJECT DESCRIPTION

The project consists of an update to the California Baptist University Specific Plan, which calls for a target year estimated enrollment of 12,000 students by 2025. By year 2025, California Baptist University is planned to consist of a total of 13 academic buildings, 2 parking structures along with additional surface lots, an event center, and an athletic area and recreation center. It should be noted that the Shell gas station property on the south side of Adams Street was included in the TIA as part of the existing traffic volume counts, and that a future higher density use within this property would require further traffic study at the time of proposal. The campus is also planned to have an additional 5,804-seat event center (*Occupancy was October 2017*), located in the southeast quadrant of the site. The event center will be primarily used for California Baptist University sports and ceremony events.

It should be noted that the areas within the sub-district of the California Baptist University Specific Plan defined as CBU SP-2 along the perimeter of the school campus do not require traffic analysis for the purpose of this study. The proposed land uses per the Specific Plan in these areas were determined to be generating trips equal to or less than the currently existing land uses therefore, negligible and considered as part of the existing counts. A formal letter detailing this trip generation exercise is included as an addendum to the report.

The internal circulation system will consist of signalized access points at Campus View Drive/Magnolia Avenue and at Lancer Lane/Adams Street. Emergency access will be provided at 5 locations along Adams Street, 2 along Monroe Street, and 4 along Magnolia Avenue. The entire campus will be served by a multitude of pedestrian pathways.

The year 2025 is assumed as the opening year for this project. The project buildout year will also be considered as 2025. All of the proposed uses for the expansion of California Baptist University will be consistent with the uses proposed within the California Baptist University Specific Plan. **Exhibit 2** shows the conceptual project site plan.

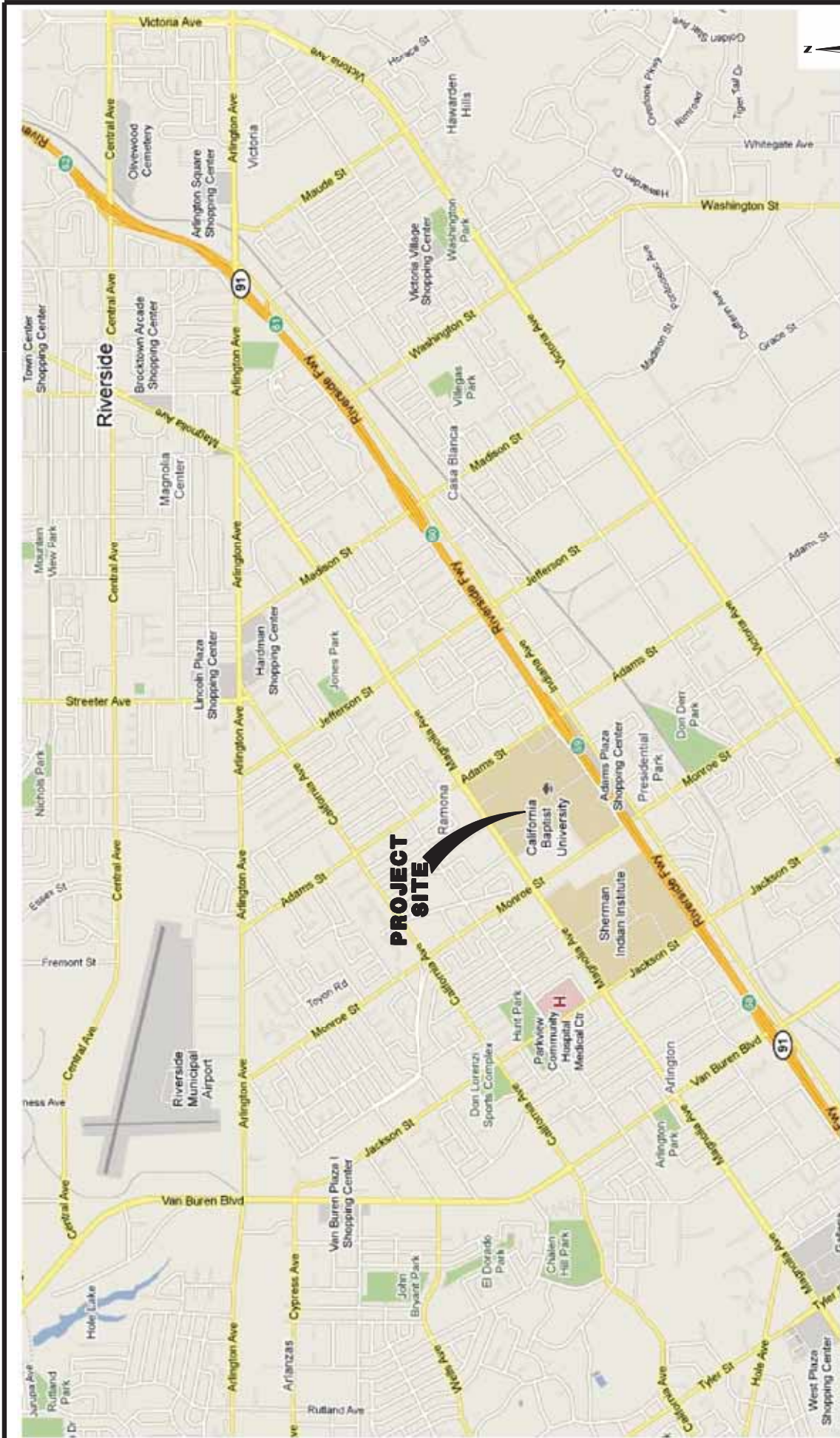
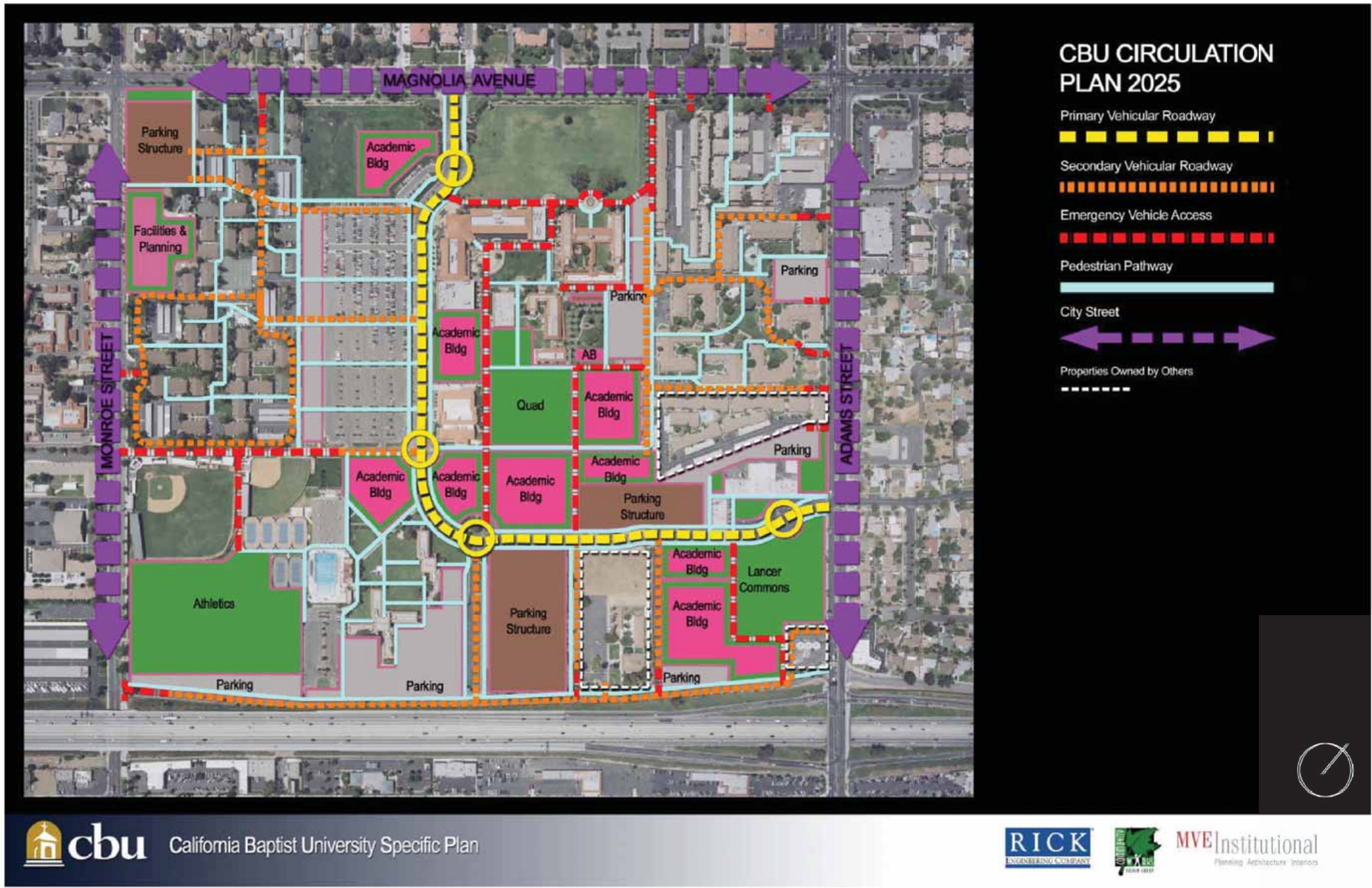


EXHIBIT 1

PROJECT AREA MAP

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EXHIBIT 2
SITE PLAN
CALIFORNIA BAPTIST UNIVERSITY TRAFFIC ANALYSIS

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EXISTING TRANSPORTATION CONDITIONS

The following is a brief description of the City of Riverside roadways within the project area.

Adams Street is classified as an Arterial Street. Within the project area, it currently provides two vehicular travel lanes in each direction with raised and painted medians. The posted speed limit is 40 mph. On street parking is permitted alongside the northbound travel lanes only. Traffic signals are provided at its intersection with Garfield Street, Magnolia Avenue, Briarwood Drive, Indiana Avenue, Lincoln Avenue, and at both eastbound and westbound 91 Freeway ramps. Diana Avenue is stop controlled at its intersection with Adams Street.

Diana Avenue is classified as a Local Street. It is a two-way street with one lane in each direction. The posted speed limit is 40 mph and on-street parking is generally not allowed, except in areas directly adjacent to residential housing. Within the immediate project area, no traffic signals are in operation on Diana Avenue in the vicinity of the proposed project.

Campus View Drive is a local street that serves the campus exclusively. It runs through the campus with a signalized intersection at Magnolia Avenue. At its intersection with Diana Avenue, Campus Bridge Drive is stop controlled. The speed limit is 15 mph and there are speed bumps along the roadway.

Garfield Street is classified as Local Street providing one travel lane in each direction. The street generally runs through residential areas. The posted speed limit is 25 mph and parking is allowed along both sides. Within the project study area, the intersection of Garfield Street and Adams Street is signalized.

Indiana Avenue is classified as an Arterial Street. It currently provides 4 lanes of travel within the project area and runs parallel to the 91 Freeway. The posted speed limit is 40 mph. Parking is allowed along both sides of the street. The signalized intersection with Adams Street is included within the project study area.

The Riverside Transit Agency's Bus Route Number 14 serves Indiana Avenue, with stops within the project area. These stops are located near the intersections of Indiana Avenue, and Jefferson Street, Susan Street, Motor Circle South, Adams Street, Doyle Street, Bernard Street, Monroe Street, Amber Street, Arrowhead Street, and Jackson Street.

Jackson Street is classified as an 88 foot Arterial Street. Within the project area, it currently provides two vehicular lanes of travel in each direction to the south of Magnolia and 4 vehicular lanes of traffic with a two way left turn lane to the north. The speed limit along Jackson is 40 mph with a 25 mph school zone located near the signalized intersection with Magnolia Avenue.

Jefferson Street is currently classified as a Collector Street with two vehicular lanes of travel. Jefferson generally serves residential areas with a posted speed limit is 35 mph. The signalized intersection of Jefferson and Magnolia was analyzed as part of the project study area.

Lincoln Avenue is classified as an Arterial Street. It provides 4 lanes of travel, 2 in each direction with a two way left turn lane to the east of Adams Street. The posted speed limit is 45 mph. Its intersection with Adams Street is signalized and included as part of the analysis.

The Riverside Transit Agency's Bus Route Number 10 serves Lincoln Avenue, with stops within the project area. These stops are located near the intersections of Lincoln Avenue and Jefferson Street, Lawrence Street, Adams Street, Gratton Street, Monroe Street, Irving Street, and Jackson Street.

Magnolia Avenue is classified as an Arterial Street. It is considered as a Special Boulevard with Parkways under the Magnolia Avenue Specific Plan. Within the project area, it currently provides two vehicular travel lanes in each direction. The posted speed limit is 40 mph and on-street parking is prohibited. Bike lanes are found in both directions of travel. Traffic signals are provided at its intersection with Jackson Street, Overland Street, Monroe Street, Campus Bridge Drive, Adams Street, and Jefferson Street.

Magnolia Avenue is served by the Riverside Transit Agency's Bus Route Number 1, with stops within the project area. These stops are located near the intersections of Magnolia Avenue and Jefferson Street, Canterbury Road, Crowell Avenue, Adams Street, Palm Drive, Melody Lane, Monroe Street, Overland Street, Sherman Drive, and Jackson Street. Magnolia Avenue is also served by a separate bike lane.

Monroe Street is classified as a Collector Street. It currently provides for one travel lane in each direction with a two way left turn lane. The speed limit is 40 mph with a 25 mph school zone within the project study area. On-street parking is not permitted along either side of Monroe. A traffic signal is provided at its intersection with Magnolia Avenue. Diana Avenue is stop controlled at its intersection with Monroe Street.

Overland Street is classified as a Local Street. Within the project area, it currently provides one vehicular travel lane in each direction. The posted speed limit is 25 mph. On street parking is permitted along both sides of the street. A traffic signal is provided at its intersection with Magnolia Avenue. This intersection also serves the entrance driveway to the Riverside Unified School District.

Exhibit 3 shows the existing transportation conditions within the project area.

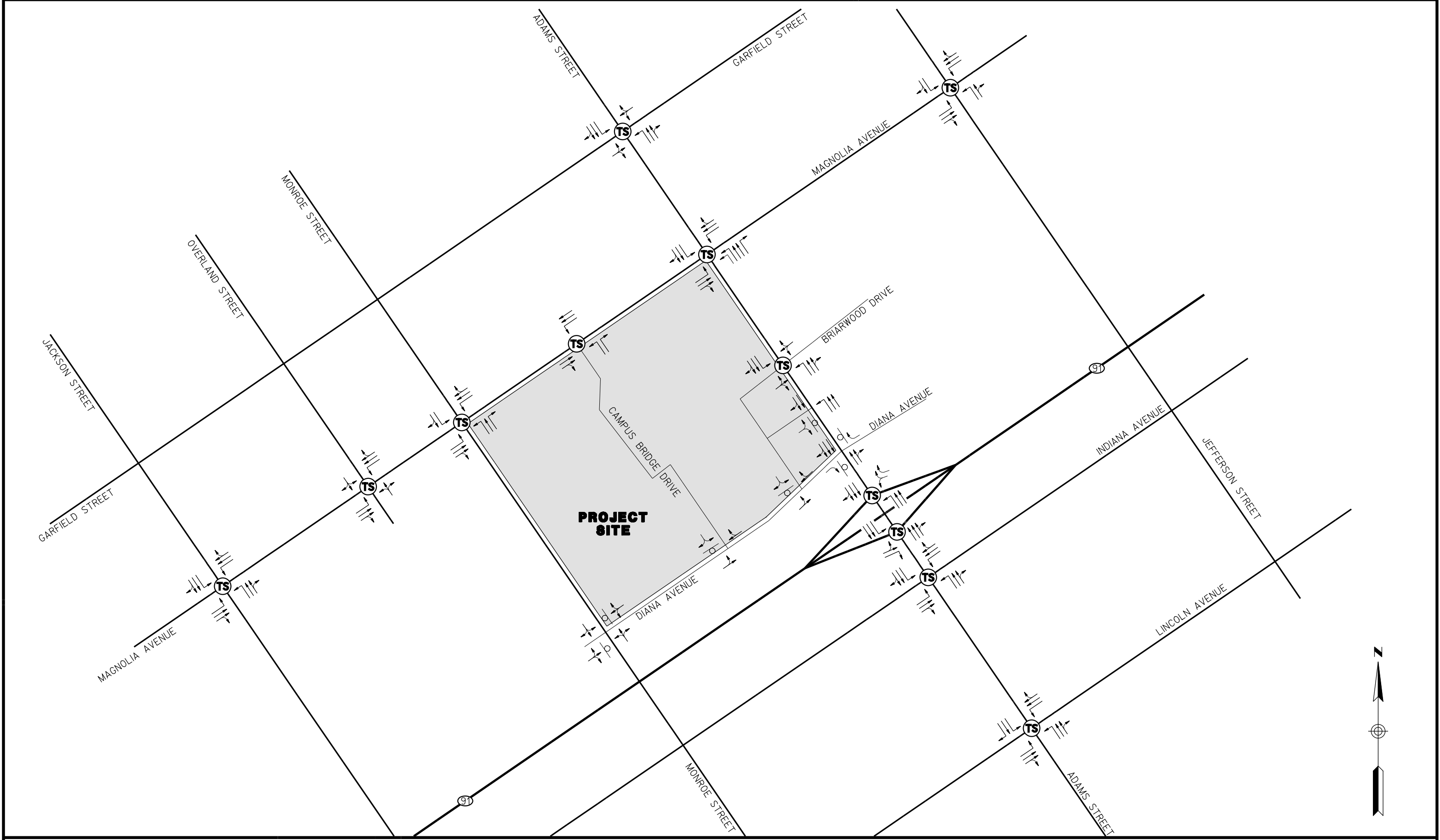
EXISTING TRAFFIC VOLUMES

Existing traffic volumes at the project area intersections were obtained from traffic counts conducted by Field Data Services of Arizona on Thursday, March 3, 2016. The turning movement counts were conducted during the AM (7-9) and PM peak (4-6) periods. Additionally, 24-hour tube counts were conducted on Wednesday, March 2, 2016. The counts for the driveways in/out of the campus, Campus View Drive at Magnolia Avenue and Diana Avenue, were conducted on Wednesday, March 23, 2016. **Exhibit 4** shows the existing traffic volumes within the study area. **Appendix B** contains the manual turning movement count sheets at the study intersections as well as the daily roadway segment counts.

TRAFFIC ANALYSIS METHODOLOGY

The intersections and roadways within the project area were analyzed for the following scenarios:

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EXHIBIT 3
EXISTING TRANSPORTATION CONDITIONS
CALIFORNIA BAPTIST UNIVERSITY TRAFFIC ANALYSIS

LEGEND

- TS** = TRAFFIC SIGNAL
- = STOP SIGN



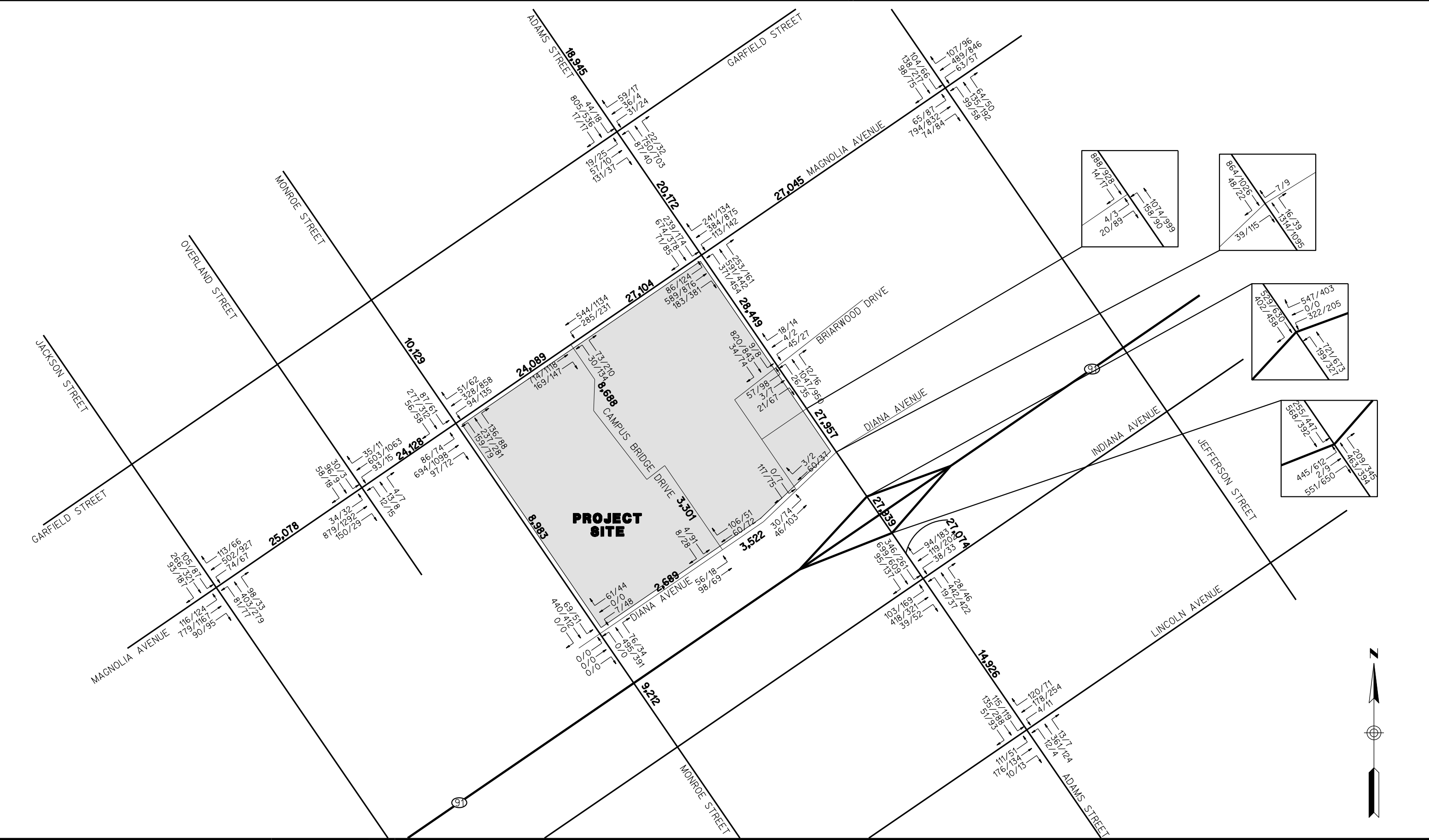
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EXHIBIT 4
EXISTING TRAFFIC VOLUMES
CALIFORNIA BAPTIST UNIVERSITY TRAFFIC ANALYSIS

LEGEND
XX/XX = AM PEAK HOUR/PM PEAK HOUR
XXXX = ADT



- Existing Conditions (Year 2016)
- Existing + Project Conditions (Year 2016) – Refer to Appendix K
- Existing + Ambient Conditions (Year 2025)
- Existing + Ambient + Project Conditions (Year 2025)
- Existing + Ambient + Cumulative + Project Conditions (Year 2025)
- General Plan Buildout Conditions (Year 2025)

The level of service for signalized intersections was calculated using the Operational Method as described in Chapter 18 of the 2010 Highway Capacity Manual (HCM). The level of service for signalized intersections is defined in terms of control delay, which is made up of a number of factors that relate to right-of-way control, geometrics, and traffic volumes. The signalized intersection analysis also takes into account intersection spacing and coordination.

The level of service for unsignalized intersections was calculated using the methodologies described in Chapter 19 of the 2010 HCM. The level of service for a two-way stop controlled intersection is determined by the computed control delay for each minor street movement and major street left-turns, and not for the intersection as a whole.

The level of service for the study area roadway segments was performed by comparing the Average Daily Traffic (ADT) on each roadway segment to the capacities shown within the City of Riverside Roadway Capacity Exhibit D.

EXISTING OPERATIONS

Signalized Intersections

The 12 signalized intersections within the study area are:

- Adams Street/Garfield Street
- Adams Street/Magnolia Avenue
- Adams Street/Briarwood Drive/Lancer Lane
- Adams Street/SR 91 WB Ramps
- Adams Street/SR 91 EB Ramps
- Adams Street/Indiana Avenue
- Adams Street/Lincoln Street
- Magnolia Avenue/Jackson Street
- Magnolia Avenue/Overland Street
- Magnolia Avenue/Monroe Street
- Magnolia Avenue/Campus Bridge Drive
- Magnolia Avenue/Jefferson Avenue

Table 1 shows all of the project area signalized intersections currently operate at LOS C or better during both the AM and PM peak hour, with the exception of the following:

- Adams Avenue/Magnolia Avenue – LOS D during the AM and PM peak hour
- Adams Avenue/SR-91 WB Ramps – LOS D during the AM peak hour
- Adams Avenue/SR-91 EB Ramps – LOS E during the PM peak hour
- Magnolia Avenue/Jackson Street – LOS D during the PM peak hour
- Magnolia Avenue/Monroe Street – LOS D during the AM and PM peak hour

TABLE 1
EXISTING INTERSECTION OPERATIONS

Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
Adams Street & Garfield Street (Signalized)	12.5	B	7.0	A
Adams Street & Magnolia Avenue (Signalized)	40.5	D	43.7	D
Adams Street & Briarwood Drive (Signalized)	8.5	A	11.0	B
Adams Street & Plaza Driveway (Unsignalized)				
EB L/R	31.7	D	15.7	C
NB L	1.6	A	0.9	A
Adams Street & Diana Avenue (Unsignalized)				
EB R	14.8	B	17.1	C
WB R	16.1	C	13.1	B
Adams Street & SR 91 WB Ramps (Signalized)	36.9	D	25.5	C
Adams Street & SR 91 EB Ramps (Signalized)	31.8	C	73.1	E
Adams Street & Indiana Avenue (Signalized)	28.0	C	31.1	C
Adams Street & Lincoln Street (Signalized)	22.3	C	17.9	B
Magnolia Avenue & Jackson Street (Signalized)	28.5	C	40.4	D
Magnolia Avenue & Overland Street (Signalized)	5.7	A	2.7	A
Magnolia Avenue & Monroe Street (Signalized)	37.6	D	37.5	D
Magnolia Avenue & Campus View (Signalized)	10.8	B	16.8	B
Magnolia Street & Jefferson Avenue (Signalized)	27.2	C	27.6	C
Diana Avenue & Monroe Street (Unsignalized)				
EB L/T/R	0.0	A	0.0	A
WB L/T/R	18.6	C	25.8	D
NB L/T/R	0.0	A	0.0	A
SB L/T/R	1.3	A	0.9	A
Diana Avenue & Campus View (Unsignalized)				
EB L/T	2.8	A	1.6	A
SB L/R	10.0	B	10.3	B
Diana Avenue & Plaza Driveway (Unsignalized)				
EB L/T	2.9	A	3.1	A
SB L/R	9.4	A	9.0	A

The 5 unsignalized intersections within the study area are:

- Adams Street/Diana Plaza Driveway
- Adams Street/Diana Avenue
- Diana Avenue/Plaza Driveway
- Diana Avenue/Campus Bridge Drive
- Diana Avenue/Monroe Street

Table 1 shows that each of the turning movements currently operate at LOS C or better during both the AM and PM peak hour, with the exception of the following:

- Eastbound Adams Street/Plaza Driveway – Los D during the AM peak hour
- Westbound Diana Avenue/Monroe Street – Los D during the PM peak hour

Roadway Segments

The 19 roadway segments analyzed within the study area are:

- Adams Street, between California Avenue and Garfield Street
- Adams Street, between Garfield Street and Magnolia Avenue
- Adams Street, between Magnolia Avenue and Briarwood Drive/Lancer Lane
- Adams Street, between Briarwood Drive/Lancer Lane and Diana Avenue
- Adams Street, between SR 91 WB Ramps and SR 91 EB Ramps
- Adams Street, between SR 91 EB Ramps and Indiana Avenue
- Adams Street, between Indiana Avenue and Lincoln Avenue
- Magnolia Avenue, between Jackson Street and Overland Street
- Magnolia Avenue, between Overland Street and Monroe Street
- Magnolia Avenue, between Monroe Street and Campus Bridge Drive
- Magnolia Avenue, between Campus Bridge Drive and Adams Street
- Magnolia Avenue, between Adams Street and Jefferson Street
- Monroe Street, between Garfield Street and Magnolia Avenue
- Monroe Street, between Magnolia Avenue and Diana Avenue
- Monroe Street, between Diana Avenue and Indiana Avenue
- Diana Avenue, between Monroe Street and Campus View Drive
- Diana Avenue, between Campus View Drive and Adams Street
- Campus View Drive, South of Magnolia Avenue
- Campus View Drive, North of Diana Avenue

Table 2 shows that all project area roadway segments currently operate at LOS D or better.

Queuing

The Synchro 9 software was utilized to analyze the 95th percentile queue for all studied signalized intersections. **Table 3** shows the existing queuing at each of the critical movements of the studied signalized intersections.

Ramp Merge/Diverge Analysis

The Highway Capacity Software (HCS) was utilized to analyze the merging and diverging conditions at the SR 91 interchange with Adams Street. **Table 4** shows the existing merge/diverge analysis at each of the studied ramps.

**TABLE 2
EXISTING ROADWAY SEGMENT OPERATIONS**

Street Segment	Roadway Classification	LOS D Capacity	# of Lanes	Existing	
				ADT	LOS
Monroe Street					
b/w Garfield St & Magnolia Ave	Collector	12,499	2	10,129	C
b/w Magnolia Ave and Diana Ave	Arterial	17,999	2	8,983	<C
b/w Diana Ave and Indiana Ave	Arterial	17,999	2	9,212	<C
Magnolia Avenue					
b/w Jefferson St and Adams St	Special Boulevard*	32,999	4	27,045	C
b/w Adams St and Campus View	Special Boulevard*	32,999	4	27,104	C
b/w Campus View and Monroe St	Special Boulevard*	32,999	4	24,089	<C
b/w Monroe St and Overland St	Special Boulevard*	32,999	4	24,128	<C
b/w Overland St and Jackson St	Special Boulevard*	32,999	4	25,078	<C
Adams Street					
b/w California Ave and Garfield St	Arterial	32,999	4	18,945	<C
b/w Garfield St and Magnolia Ave	Arterial	32,999	4	20,172	<C
b/w Magnolia Ave and Briarwood Dr	Arterial	32,999	4	28,449	C
b/w Briarwood Dr and Diana Ave	Arterial	32,999	4	27,957	C
b/w SR-91 WB and SR-91 EB Ramps	Arterial	32,999	4	27,939	C
b/w SR-91 EB Ramp and Indiana Ave	Arterial	32,999	4	27,074	C
b/w Indiana Ave and Lincoln Ave	Arterial	32,999	4	14,926	<C
Diana Avenue					
b/w Adams St and Campus View	Collector	12,499	2	3,522	<C
b/w Campus View and Monroe St	Collector	12,499	2	2,689	<C

Note:

LOS D Capacity based on City of Riverside Roadway Capacity Exhibit D.

*Magnolia Avenue classified per City of Riverside Master Plan of Roadways and Magnolia Avenue Specific Plan.

**TABLE 3
EXISTING QUEUING**

Intersection Movement	Existing Storage Length (Feet)	95th Percentile Queue (Feet)	
		AM Peak Hour	PM Peak Hour
Adams Street & Garfield Street			
Northbound Left-Turn	50	65	30
Southbound Left-Turn	50	39	18
Magnolia Avenue & Adams Street			
Eastbound Left-Turn	180	#149	#168
Westbound Left-Turn	135	#190	#215
Northbound Left-Turn	145	#224	#265
Northbound Right-Turn	245	80	52
Southbound Left-Turn	105	#326	#208
Adams Street & Briarwood Drive			
Northbound Left-Turn	195	m32	44
Southbound Left-Turn	48	20	17
Adams Street & SR 91 WB Ramps			
Westbound Left-Turn	-	391	260
Westbound Right-Turn	-	315	92
Northbound Left-Turn	170	#210	m167
Adams Street & SR 91 EB Ramps			
Eastbound Left-Turn	-	361	#635
Eastbound Right-Turn	-	346	#366
Southbound Left-Turn	170	m245	#474
Adams Street & Indiana Avenue			
Eastbound Left-Turn	130	130	#193
Westbound Left-Turn	95	64	42
Northbound Left-Turn	145	40	45
Southbound Left-Turn	75	#227	#263
Adams Street & Lincoln Street			
Eastbound Left-Turn	120	#110	#60
Westbound Left-Turn	140	9	18
Northbound Left-Turn	150	18	10
Southbound Left-Turn	200	#114	#103
Magnolia Avenue & Jackson Street			
Eastbound Left-Turn	170	#120	#144
Westbound Left-Turn	110	#97	#90
Northbound Left-Turn	150	#97	#105
Southbound Left-Turn	125	#129	#118
Magnolia Avenue & Overland Street			
Eastbound Left-Turn	110	15	9
Westbound Left-Turn	110	59	5
Magnolia Avenue & Monroe Street			
Eastbound Left-Turn	105	115	111
Westbound Left-Turn	115	#141	#238
Northbound Left-Turn	150	#214	#159
Northbound Right-Turn	150	28	38
Southbound Left-Turn	150	117	#118
Magnolia Avenue & Campus View			
Westbound Left-Turn	160	#330	#299
Northbound Left-Turn	100	37	117
Northbound Right-Turn	100	33	51
Magnolia Street & Jefferson Avenue			
Eastbound Left-Turn	110	#72	#92
Westbound Left-Turn	110	#81	#73
Northbound Left-Turn	140	#119	#74
Southbound Left-Turn	140	#125	#85

Note:

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

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

Queue shown is maximum after 2 two cycles.

TABLE 4
EXISTING RAMP MERGE/DIVERGE ANALYSIS

Ramp	AM Peak Hour		PM Peak Hour	
	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
SR 91 Westbound Offramp at Adams Street	11.3	B	12.3	B
SR 91 Westbound Onramp at Adams Street	19.6	B	9.2	A
SR 91 Eastbound Offramp at Adams Street	10.9	B	12.2	B
SR 91 Eastbound Onramp at Adams Street	36.5	E	39.4	E

EXISTING + AMBIENT OPERATIONS

As discussed with the City of Riverside Traffic Engineering Division, a 1% growth rate per year was utilized to factor existing 2016 traffic volumes to the project's opening year, 2025. **Exhibit 5** shows the existing + ambient (year 2025) traffic volumes.

Signalized Intersections

Table 5 shows that all project area signalized intersections are anticipated to operate at LOS C or better during both the AM and PM peak hour, with the exception of the following:

- Adams Street/Magnolia Avenue – LOS D during the AM peak hour and LOS E during the PM peak hour
- Adams Avenue/SR-91 WB Ramps – LOS D during the AM and PM peak hour
- Adams Avenue/SR-91 EB Ramps – LOS D during the AM peak hour and LOS F during the PM peak hour
- Magnolia Avenue/Jackson Street – LOS D during the PM peak hour
- Magnolia Avenue/Monroe Street – LOS D during the AM and PM peak hour

Unsignalized Intersections

Table 5 shows that each of the turning movements operate at LOS C or better during both the AM and PM peak hour, with the exception of the following:

- Eastbound Adams Street/Plaza Driveway – LOS E during the AM peak hour
- Westbound Diana Avenue/Monroe Street – Los D during the PM peak hour

Roadway Segments

Table 6 shows that all project area roadway segments are anticipated to operate at LOS D or better.

Queuing

Table 7 shows the existing + ambient queuing at each of the critical movements of the studied signalized intersections.

Ramp Merge/Diverge Analysis

Table 8 shows the existing + ambient merge/diverge analysis at each of the studied ramps.

PROJECT TRAFFIC GENERATION

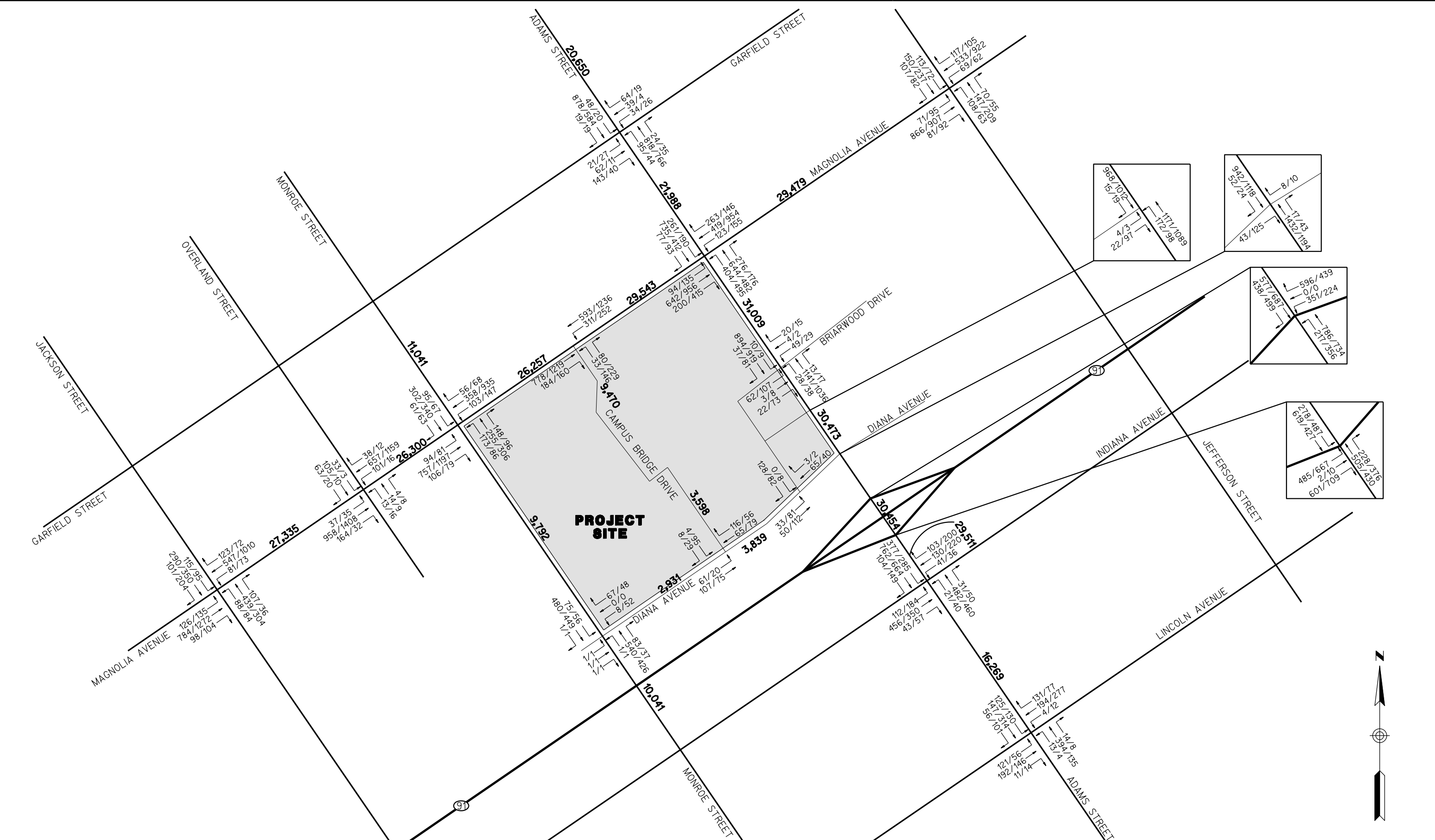
Trip generation for the proposed expansion of California Baptist University was estimated based on a calculated rate determined using the existing driveway traffic volumes and the existing student population. As this is an existing land use that is only increasing in size, it was determined that a trip generation rate determined based on the actual existing data is a more appropriate than the rates contained within the Institute of Transportation Engineer's (ITE) Trip Generation manual as it is based on existing, local data. Refer to **Appendix C** for the trip generation calculations and comparison to ITE rates.



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EXHIBIT 5
EXISTING + AMBIENT TRAFFIC VOLUMES (YEAR 2025)
CALIFORNIA BAPTIST UNIVERSITY TRAFFIC ANALYSIS

LEGEND
XX/XX = AM PEAK HOUR/PM PEAK HOUR
XXXX = ADT



**TABLE 5
EXISTING + AMBIENT
INTERSECTION OPERATIONS (YEAR 2025)**

Intersection	Existing				Existing + Ambient				Significant Impact
	AM		PM		AM		PM		
	Peak Hour		Peak Hour		Peak Hour		Peak Hour		
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	
Adams Street & Garfield Street (Signalized)	12.5	B	7.0	A	13.7	B	7.3	A	No
Adams Street & Magnolia Avenue (Signalized)	40.5	D	43.7	D	46.5	D	55.9	E	Yes
Adams Street & Briarwood Drive (Signalized)	8.5	A	11.0	B	12.1	B	11.4	B	No
Adams Street & Plaza Driveway (Unsignalized)									
EB L/R	31.7	D	15.7	C	41.1	E	17.5	C	Yes
NB L	1.6	A	0.9	A	1.7	A	1.0	A	No
Adams Street & Diana Avenue (Unsignalized)									
EB R	14.8	B	17.1	C	15.8	C	18.9	C	No
WB R	16.1	C	13.1	B	17.5	C	13.8	B	No
Adams Street & SR 91 WB Ramps (Signalized)	36.9	D	25.5	C	41.7	D	37.0	D	Yes
Adams Street & SR 91 EB Ramps (Signalized)	31.8	C	73.1	E	42.1	D	94.2	F	Yes
Adams Street & Indiana Avenue (Signalized)	28.0	C	31.1	C	28.8	C	33.3	C	No
Adams Street & Lincoln Street (Signalized)	22.3	C	17.9	B	23.6	C	18.9	B	No
Magnolia Avenue & Jackson Street (Signalized)	28.5	C	40.4	D	30.7	C	46.3	D	Yes
Magnolia Avenue & Overland Street (Signalized)	5.7	A	2.7	A	6.3	A	2.8	A	No
Magnolia Avenue & Monroe Street (Signalized)	37.6	D	37.5	D	46.2	D	47.8	D	Yes
Magnolia Avenue & Campus View (Signalized)	10.8	B	16.8	B	11.9	B	20.9	C	No
Magnolia Street & Jefferson Avenue (Signalized)	27.2	C	27.6	C	31.5	C	28.6	C	No
Diana Avenue & Monroe Street (Unsignalized)									
EB L/T/R	0.0	A	0.0	A	0.0	A	0.0	A	No
WB L/T/R	18.6	C	25.8	D	21.9	C	33.1	D	No
NB L/T/R	0.0	A	0.0	A	0.0	A	0.0	A	No
SB L/T/R	1.3	A	0.9	A	1.3	A	1.0	A	No
Diana Avenue & Campus View (Unsignalized)									
EB L/T	2.8	A	1.6	A	2.9	A	1.6	A	No
SB L/R	10.0	B	10.3	B	10.2	B	10.5	B	No
Diana Avenue & Plaza Driveway (Unsignalized)									
EB L/T	2.9	A	3.1	A	3.0	A	3.1	A	No
SB L/R	9.4	A	9.0	A	9.5	A	9.1	A	No

*Significant Impact criteria per Exhibit F of City of Riverside Traffic Impact Analysis Preparation Guide, dated January 2016

TABLE 6
EXISTING + AMBIENT
ROADWAY SEGMENT OPERATIONS (YEAR 2025)

Street Segment	Roadway Classification	LOS D Capacity	# of Lanes	Existing		Existing + Ambient	
				ADT	LOS	ADT	LOS
Monroe Street							
b/w Garfield St & Magnolia Ave	Collector	12,499	2	10,129	C	11,041	C
b/w Magnolia Ave and Diana Ave	Arterial	17,999	2	8,983	<C	9,792	<C
b/w Diana Ave and Indiana Ave	Arterial	17,999	2	9,212	<C	10,041	<C
Magnolia Avenue							
b/w Jefferson St and Adams St	Special Boulevard*	32,999	4	27,045	C	29,479	C
b/w Adams St and Campus View	Special Boulevard*	32,999	4	27,104	C	29,543	C
b/w Campus View and Monroe St	Special Boulevard*	32,999	4	24,089	<C	26,257	C
b/w Monroe St and Overland St	Special Boulevard*	32,999	4	24,128	<C	26,300	C
b/w Overland St and Jackson St	Special Boulevard*	32,999	4	25,078	<C	27,335	C
Adams Street							
b/w California Ave and Garfield St	Arterial	32,999	4	18,945	<C	20,650	C
b/w Garfield St and Magnolia Ave	Arterial	32,999	4	20,172	<C	21,988	<C
b/w Magnolia Ave and Briarwood Dr	Arterial	32,999	4	28,449	C	31,009	D
b/w Briarwood Dr and Diana Ave	Arterial	32,999	4	27,957	C	30,473	D
b/w SR-91 WB and SR-91 EB Ramps	Arterial	32,999	4	27,939	C	30,454	D
b/w SR-91 EB Ramp and Indiana Ave	Arterial	32,999	4	27,074	C	29,511	C
b/w Indiana Ave and Lincoln Ave	Arterial	32,999	4	14,926	<C	16,269	<C
Diana Avenue							
b/w Adams St and Campus View	Collector	12,499	2	3,522	<C	3,839	<C
b/w Campus View and Monroe St	Collector	12,499	2	2,689	<C	2,931	<C

Note:

LOS D Capacity based on City of Riverside Roadway Capacity Exhibit D.

*Magnolia Avenue classified per City of Riverside Master Plan of Roadways and Magnolia Avenue Specific Plan.

**TABLE 7
EXISTING + AMBIENT (YEAR 2025)
QUEUING**

Intersection Movement	Existing Storage Length (Feet)	95th Percentile Queue (Feet)			
		Existing		Existing + Ambient	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Adams Street & Garfield Street					
Northbound Left-Turn	50	65	30	74	32
Southbound Left-Turn	50	39	18	46	19
Magnolia Avenue & Adams Street					
Eastbound Left-Turn	180	#149	#168	#131	#195
Westbound Left-Turn	135	#190	#215	#187	#221
Northbound Left-Turn	145	#224	#265	#190	#230
Northbound Right-Turn	245	80	52	97	50
Southbound Left-Turn	105	#326	#208	#289	#212
Adams Street & Briarwood Drive					
Northbound Left-Turn	195	m32	44	m33	51
Southbound Left-Turn	48	20	17	21	20
Adams Street & SR 91 WB Ramps					
Westbound Left-Turn	-	391	260	454	#302
Westbound Right-Turn	-	315	92	385	141
Northbound Left-Turn	170	#210	m167	#253	m199
Adams Street & SR 91 EB Ramps					
Eastbound Left-Turn	-	361	#635	403	#709
Eastbound Right-Turn	-	346	#366	#456	#538
Southbound Left-Turn	170	m245	#474	m255	#538
Adams Street & Indiana Avenue					
Eastbound Left-Turn	130	130	#193	139	197
Westbound Left-Turn	95	64	42	68	58
Northbound Left-Turn	145	40	45	42	63
Southbound Left-Turn	75	#227	#263	m242	m229
Adams Street & Lincoln Street					
Eastbound Left-Turn	120	#110	#60	#226	#68
Westbound Left-Turn	140	9	18	9	20
Northbound Left-Turn	150	18	10	19	10
Southbound Left-Turn	200	#114	#103	#119	#119
Magnolia Avenue & Jackson Street					
Eastbound Left-Turn	170	#120	#144	#122	#160
Westbound Left-Turn	110	#97	#90	#105	#107
Northbound Left-Turn	150	#97	#105	#103	#123
Southbound Left-Turn	125	#129	#118	#142	#139
Magnolia Avenue & Overland Street					
Eastbound Left-Turn	110	15	9	17	10
Westbound Left-Turn	110	59	5	#97	6
Magnolia Avenue & Monroe Street					
Eastbound Left-Turn	105	115	111	101	#116
Westbound Left-Turn	115	#141	#238	#145	#205
Northbound Left-Turn	150	#214	#159	#211	#142
Northbound Right-Turn	150	28	38	29	38
Southbound Left-Turn	150	117	#118	#118	#97
Magnolia Avenue & Campus View					
Westbound Left-Turn	160	#330	#299	#287	#269
Northbound Left-Turn	100	37	117	39	120
Northbound Right-Turn	100	33	51	35	55
Magnolia Street & Jefferson Avenue					
Eastbound Left-Turn	110	#72	#92	#77	#112
Westbound Left-Turn	110	#81	#73	#97	#88
Northbound Left-Turn	140	#119	#74	#130	#78
Southbound Left-Turn	140	#125	#85	#137	#92

Note:

95th percentile volume exceeds capacity, queue may be longer.
m Volume for 95th percentile queue is metered by upstream signal.
Queue shown is maximum after 2 two cycles.

TABLE 8
EXISTING + AMBIENT
RAMP MERGE/DIVERGE ANALYSIS (YEAR 2025)

Ramp	Existing				Existing + Ambient			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
SR 91 Westbound Offramp at Adams Street	11.3	B	12.3	B	13.1	B	14.2	B
SR 91 Westbound Onramp at Adams Street	19.6	B	9.2	A	21.8	B	24.4	C
SR 91 Eastbound Offramp at Adams Street	10.9	B	12.2	B	12.7	B	14.1	B
SR 91 Eastbound Onramp at Adams Street	36.5	E	39.4	E	42.0	F	43.6	F

Based on the existing, locally calculated trip rates, the project is anticipated to generate 17,280 ADT with 1,080 AM peak hour trips (907 inbound/173 outbound) and 1,320 PM peak hour trips (647 inbound/673 outbound). This represents an increase of 5,291 daily trips, 349 AM peak hour

trips (293 inbound/56 outbound) and 589 PM peak hour trips (289 inbound/300 outbound), in comparison to the existing trips. **Table 9** shows the total trip generation for the project.

It should be noted that, although the total trips increased, the calculated trip generation rates went down in comparison with the previous study. One reason for this is the increase in available on-campus student housing. Another reason for this is the inclusion of on-line students to the student total in calculating the trip generation rates. In our previous study, on-line students were not counted as part of the analysis.

PROJECT TRAFFIC DISTRIBUTION/ASSIGNMENT

The project trips were distributed and assigned to the project driveways and nearby intersections based on existing traffic counts, proximity to nearby arterials and adjacent travel patterns.

The following changes will occur with the proposed expansion of California Baptist University, and traffic patterns were revised accordingly:

- The existing shopping center on the west side of Adams Street, north of Diana Avenue will be redeveloped with academic buildings and parking facilities. The Plaza Driveway access to Adams Street and Diana Avenue will be removed.
- The main access point to the campus will be shifted from Magnolia Street/Campus Bridge Drive to Adams Street and Lancer Lane/Briarwood Drive (the existing access at Magnolia Street/Campus Bridge Drive will remain). Lancer Lane will have 3 lanes exiting, to include a left turn lane, a thru lane, and an exclusive right turn lane. In addition, the NB approach of Adams Avenue will have an additional left turn lane and the SB approach of Adams Avenue will have an additional thru lane. These improvements will be added as part of the conditions of approval from the previous study performed for the CBU event center.
- The access point at Campus View/Diana Avenue will be removed. Diana Street access will be cut off from Monroe Avenue and Adams Street and will be accessible to emergency vehicles only.

Exhibit 6 shows the project traffic distribution percentages utilized for assigning the project trips. **Exhibit 7** shows the project traffic assignments. **Exhibit 8** shows the existing + ambient + project (year 2025) traffic volumes within the project study area.

EXISTING + AMBIENT + PROJECT OPERATIONS

Signalized Intersections

Table 10 shows that all project area signalized intersections are anticipated to operate at LOS C or better during both the AM and PM peak hour, with the exception of the following:

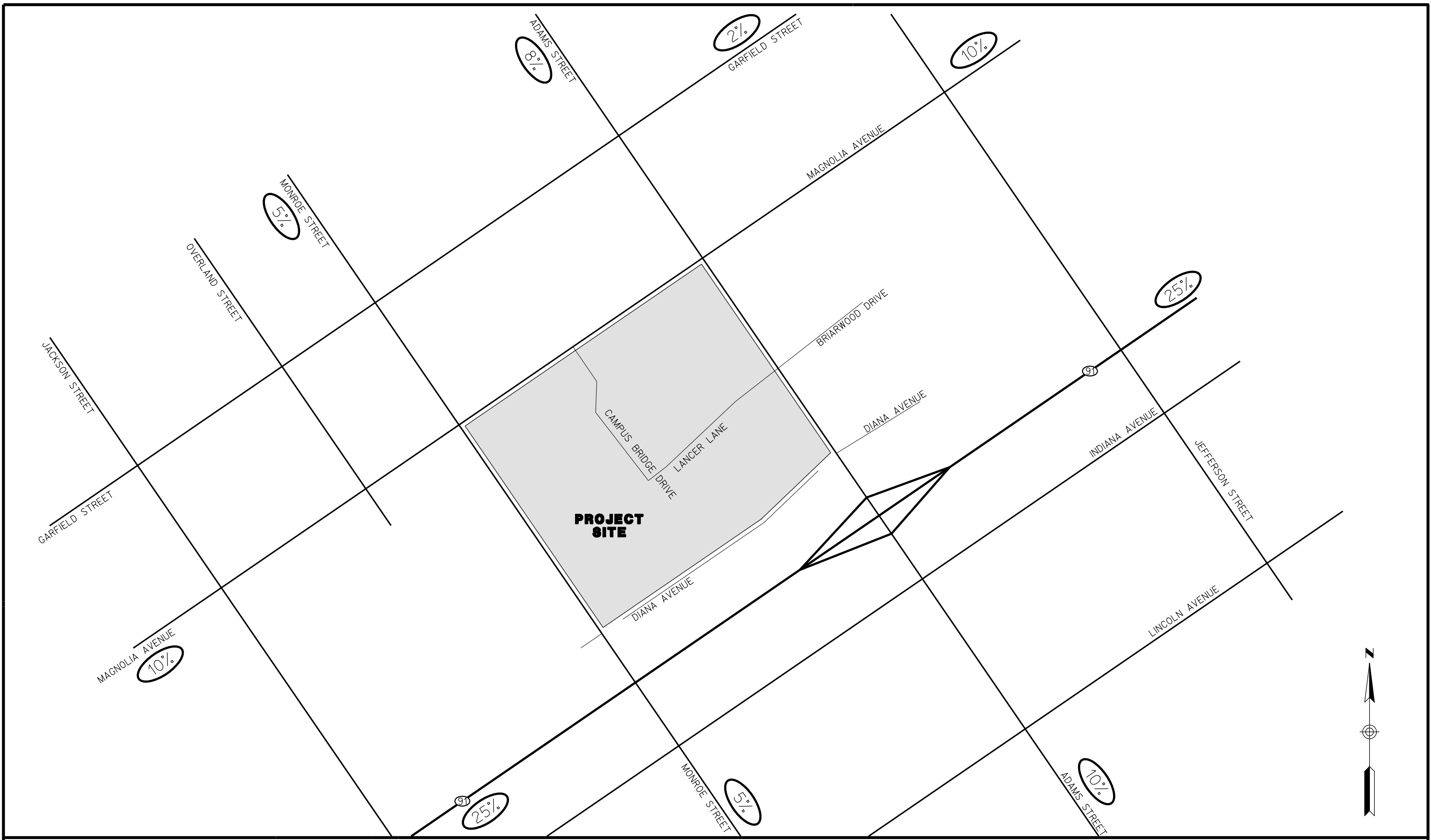
TABLE 9
PROJECT TRAFFIC GENERATION

Land Use	ADT	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Institutional	17,280	907	173	1,080	647	673	1,320

Note:

Traffic generation is based on calculation generated from existing traffic volume counts at existing driveways. Refer to Appendix C for calculations and for comparison to ITE Trip Generation rates.

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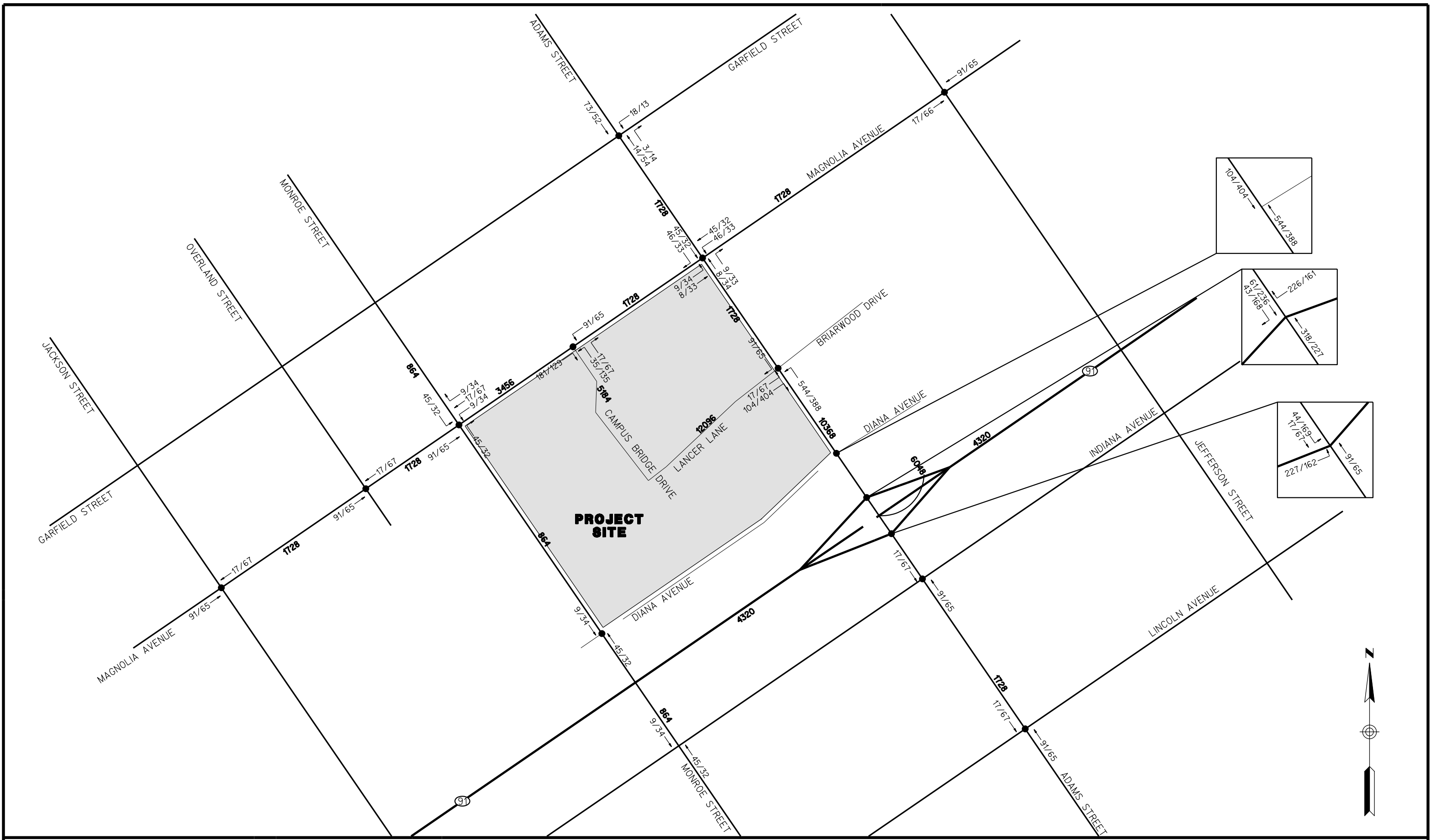


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EXHIBIT 6
PROJECT TRAFFIC DISTRIBUTION
CALIFORNIA BAPTIST UNIVERSITY TRAFFIC ANALYSIS

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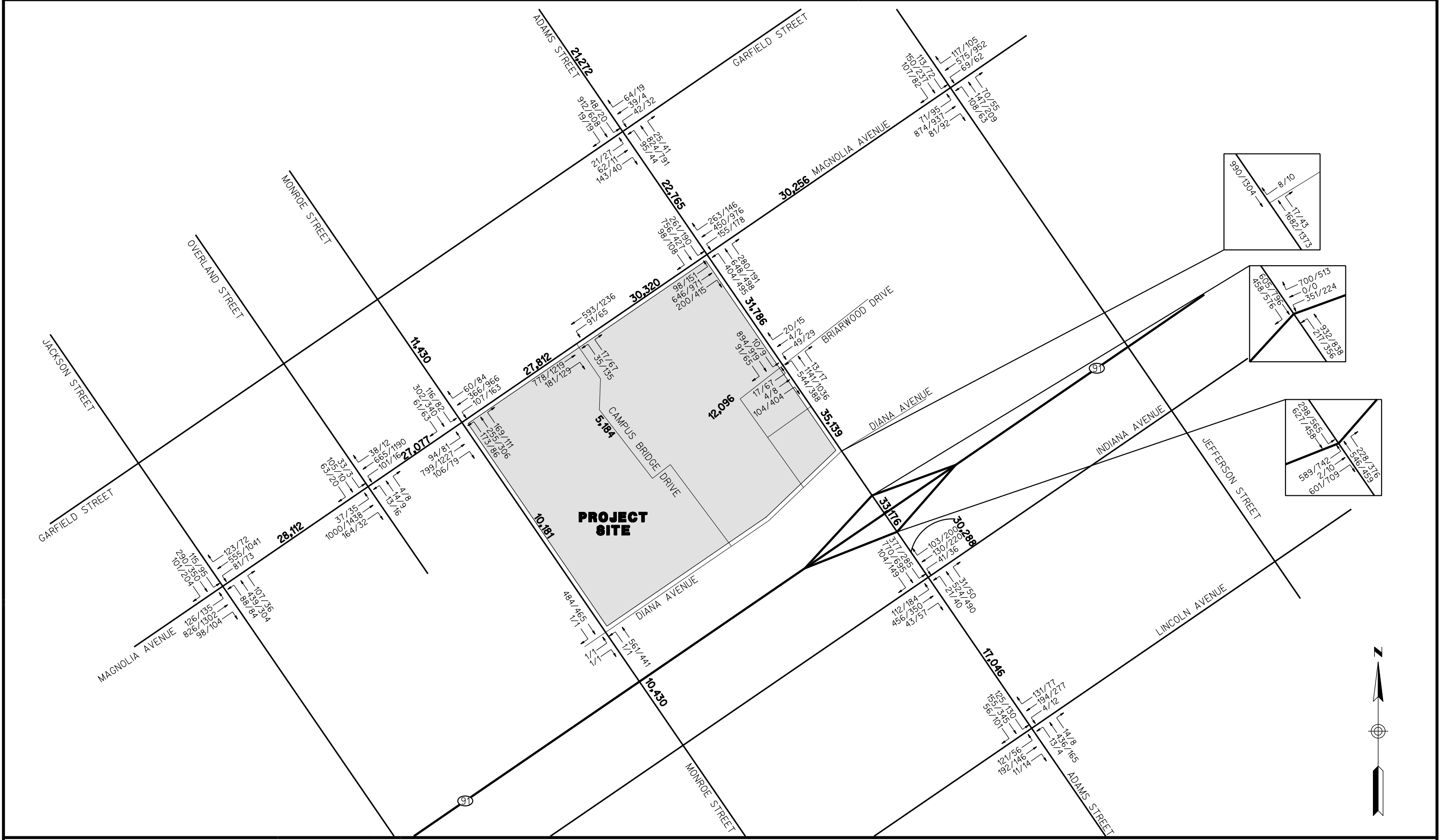
5620 FRIARS ROAD
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EXHIBIT 7
PROJECT TRAFFIC ASSIGNMENT
CALIFORNIA BAPTIST UNIVERSITY TRAFFIC ANALYSIS

LEGEND
XX/XX = AM PEAK HOUR/PM PEAK HOUR
XXXX = ADT

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EXHIBIT 8
EXISTING + AMBIENT + PROJECT TRAFFIC VOLUMES (YEAR 2025)
CALIFORNIA BAPTIST UNIVERSITY TRAFFIC ANALYSIS

LEGEND
XX/XX = AM PEAK HOUR/PM PEAK HOUR
XXXX = ADT



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TABLE 10
EXISTING + AMBIENT + PROJECT
INTERSECTION OPERATIONS (YEAR 2025)

Intersection	Existing + Ambient				Existing + Ambient + Project				Significant Impact
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	
Adams Street & Garfield Street (Signalized)	13.7	B	7.3	A	14.4	B	7.5	A	No
Adams Street & Magnolia Avenue (Signalized)	46.5	D	55.9	E	53.7	D	61.6	E	Yes
Mitigated					41.9	D	39.1	D	
Adams Street & Briarwood Drive (Signalized)	12.1	B	11.4	B	18.3	B	16.6	B	No
Adams Street & Plaza Driveway (Unsignalized)									
EB L/R	41.1	E	17.5	C	-	-	-	-	No
NB L	1.7	A	1.0	A	-	-	-	-	No
Adams Street & Diana Avenue (Unsignalized)									
EB R	15.8	C	18.9	C	-	-	-	-	No
WB R	17.5	C	13.8	B	20.8	C	17.2	C	No
Adams Street & SR 91 WB Ramps (Signalized)	41.7	D	37.0	D	61.1	E	39.0	D	Yes
Adams Street & SR 91 EB Ramps (Signalized)	42.1	D	94.2	F	44.6	D	116.1	F	Yes
Adams Street & Indiana Avenue (Signalized)	28.8	C	33.3	C	29.9	C	32.3	C	No
Adams Street & Lincoln Street (Signalized)	23.6	C	18.9	B	24.5	C	17.9	B	No
Magnolia Avenue & Jackson Street (Signalized)	30.7	C	46.3	D	31.8	C	44.9	D	No
Magnolia Avenue & Overland Street (Signalized)	6.3	A	2.8	A	6.5	A	2.7	A	No
Magnolia Avenue & Monroe Street (Signalized)	46.2	D	47.8	D	48.8	D	48.8	D	No
Magnolia Avenue & Campus View (Signalized)	11.9	B	20.9	C	5.8	A	7.9	A	No
Magnolia Street & Jefferson Avenue (Signalized)	31.5	C	28.6	C	31.9	C	29.2	C	
Diana Avenue & Monroe Street (Unsignalized)									
EB L/T/R	0.0	A	0.0	A	18.7	C	16.4	C	No
WB L/T/R	21.9	C	33.1	D	-	-	-	-	No
NB L/T/R	0.0	A	0.0	A	0.0	A	0.0	A	No
SB L/T/R	1.3	A	1.0	A	0.0	A	0.0	A	No
Diana Avenue & Campus View (Unsignalized)									
EB L/T	2.9	A	1.6	A	-	-	-	-	No
SB L/R	10.2	B	10.5	B	-	-	-	-	No
Diana Avenue & Plaza Driveway (Unsignalized)									
EB L/T	3.0	A	3.1	A	-	-	-	-	No
SB L/R	9.5	A	9.1	A	-	-	-	-	No

*Significant Impact criteria per Exhibit F of City of Riverside Traffic Impact Analysis Preparation Guide, dated January 2016

- Adams Street/Magnolia Avenue – LOS D during the AM peak hour and LOS E during the PM peak hour
- Adams Street/SR 91 WB Ramps – LOS E during the AM peak hour and LOS D during the PM peak hour
- Adams Street/SR 91 EB Ramps – LOS D during the AM peak hour and LOS F during the PM peak hour
- Magnolia Avenue/Monroe Street – LOS D during the AM and PM peak hour

The addition of an exclusive right turn lane (100 ft min.) to the EB direction of Magnolia Avenue at the Adams Street/Magnolia Avenue intersection shows an improvement of 11.8 second delay in the AM peak hour and an 22.5 second delay in the PM peak hour.

It should be noted that the City of Riverside has begun the Project Study Report (PSR) process, with Caltrans, for the improvements to the Adams Street/SR-91 interchange. Seven (7) alternatives are currently being considered. However, for this report's analysis, the existing configuration was assumed, as a preferred alternative has not yet been chosen. Improvements to the interchange will likely result in acceptable levels of service.

Unsignalized Intersections

Table 10 shows that each of the turning movements is anticipated to operate at LOS C or better during both the AM and PM peak hour.

Roadway Segments

Table 11 shows that all project area roadway segments are anticipated to operate at LOS D or better, with the exception of the following:

- Adams Street, between Briarwood Drive and Diana Avenue – LOS E
- Adams Street, between the SR-91 Eastbound and Westbound Ramps – LOS E

Queuing

Table 12 shows the existing + ambient + project queuing at each of the critical movements of the studied signalized intersections.

Ramp Merge/Diverge Analysis

Table 13 shows the existing + ambient + project merge/diverge analysis at each of the studied ramps.

CUMULATIVE TRAFFIC

Based on discussions with the City of Riverside's Planning Department, there are currently 20 other planned or entitle projects within a 2 mile radius of the California Baptist University project. Each of these cumulative projects was reviewed to determine if any cumulative project traffic will be added to the project study area intersections or roadway segments. Based on the review, it was determined that 7 of the 20 cumulative projects are anticipated to add new trips to the project area intersections and roadway segments. Trip generation was performed for each of

TABLE 11
EXISTING + AMBIENT + PROJECT
ROADWAY SEGMENT OPERATIONS (YEAR 2025)

Street Segment	Roadway Classification	LOS D Capacity	# of Lanes	Existing + Ambient		Existing + Ambient + Project	
				ADT	LOS	ADT	LOS
Monroe Street							
b/w Garfield St & Magnolia Ave	Collector	12,499	2	11,041	C	11,430	D
b/w Magnolia Ave and Diana Ave	Arterial	17,999	2	9,792	<C	10,181	<C
b/w Diana Ave and Indiana Ave	Arterial	17,999	2	10,041	<C	10,430	<C
Magnolia Avenue							
b/w Jefferson St and Adams St	Special Boulevard*	32,999	4	29,479	C	30,256	D
b/w Adams St and Campus View	Special Boulevard*	32,999	4	29,543	C	30,320	D
b/w Campus View and Monroe St	Special Boulevard*	32,999	4	26,257	C	27,812	C
b/w Monroe St and Overland St	Special Boulevard*	32,999	4	26,300	C	27,077	C
b/w Overland St and Jackson St	Special Boulevard*	32,999	4	27,335	C	28,112	C
Adams Street							
b/w California Ave and Garfield St	Arterial	32,999	4	20,650	C	21,272	<C
b/w Garfield St and Magnolia Ave	Arterial	32,999	4	21,988	<C	22,765	<C
b/w Magnolia Ave and Briarwood Dr	Arterial	32,999	4	31,009	D	31,009	D
b/w Briarwood Dr and Diana Ave	Arterial	32,999	4	30,473	D	35,139	E
b/w SR-91 WB and SR-91 EB Ramps	Arterial	32,999	4	30,454	D	33,176	E
b/w SR-91 EB Ramp and Indiana Ave	Arterial	32,999	4	29,511	C	30,288	D
b/w Indiana Ave and Lincoln Ave	Arterial	32,999	4	16,269	<C	17,046	<C
Diana Avenue							
b/w Adams St and Campus View	Collector	12,499	2	3,839	<C	-	-
b/w Campus View and Monroe St	Collector	12,499	2	2,931	<C	-	-

Note:

LOS D Capacity based on City of Riverside Roadway Capacity Exhibit D.

*Magnolia Avenue classified per City of Riverside Master Plan of Roadways and Magnolia Avenue Specific Plan.

TABLE 12
EXISTING + AMBIENT + PROJECT
QUEUING (YEAR 2025)

Intersection Movement	Existing Storage Length (Feet)	95th Percentile Queue (Feet)			
		Existing + Ambient		Existing + Ambient + Project	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Adams Street & Garfield Street					
Northbound Left-Turn	50	74	32	73	31
Southbound Left-Turn	50	46	19	46	19
Magnolia Avenue & Adams Street					
Eastbound Left-Turn	180	#131	#195	#137	#210
Eastbound Right-Turn(Mitigated)	100	-	-	153	179
Westbound Left-Turn	135	#187	#221	#218	#257
Northbound Left-Turn	145	#190	#230	#190	#230
Northbound Right-Turn	245	97	50	90	52
Southbound Left-Turn	105	#289	#212	#289	#212
Adams Street & Briarwood Drive					
Northbound Left-Turn	195	m33	51	m#685	m#384
Southbound Left-Turn	48	21	20	22	21
Adams Street & SR 91 WB Ramps					
Westbound Left-Turn	-	454	#302	#589	#385
Westbound Right-Turn	-	385	141	#540	212
Northbound Left-Turn	170	#253	m199	m#234	m171
Adams Street & SR 91 EB Ramps					
Eastbound Left-Turn	-	403	#709	#625	#835
Eastbound Right-Turn	-	#456	#538	#509	#561
Southbound Left-Turn	170	m255	#538	m253	m#674
Adams Street & Indiana Avenue					
Eastbound Left-Turn	130	139	197	144	197
Westbound Left-Turn	95	68	58	#70	58
Northbound Left-Turn	145	42	63	43	63
Southbound Left-Turn	75	m242	m229	m249	m233
Adams Street & Lincoln Street					
Eastbound Left-Turn	120	#226	#68	#123	#58
Westbound Left-Turn	140	9	20	9	20
Northbound Left-Turn	150	19	10	19	10
Southbound Left-Turn	200	#119	#119	#128	100
Magnolia Avenue & Jackson Street					
Eastbound Left-Turn	170	#122	#160	#122	#160
Westbound Left-Turn	110	#105	#107	#105	#107
Northbound Left-Turn	150	#103	#123	#103	#112
Southbound Left-Turn	125	#142	#139	#142	#127
Magnolia Avenue & Overland Street					
Eastbound Left-Turn	110	17	10	18	10
Westbound Left-Turn	110	#97	6	#105	6
Magnolia Avenue & Monroe Street					
Eastbound Left-Turn	105	101	#116	101	#105
Westbound Left-Turn	115	#145	#205	#152	#232
Northbound Left-Turn	150	#211	#142	#211	#154
Northbound Right-Turn	150	29	38	31	41
Southbound Left-Turn	150	#118	#97	123	#136
Magnolia Avenue & Campus View					
Westbound Left-Turn	160	#287	#269	94	72
Northbound Left-Turn	100	39	120	40	116
Northbound Right-Turn	100	35	55	16	33
Magnolia Street & Jefferson Avenue					
Eastbound Left-Turn	110	#77	#112	#77	#135
Westbound Left-Turn	110	#97	#88	#97	#88
Northbound Left-Turn	140	#130	#78	#130	#89
Southbound Left-Turn	140	#137	#92	#137	#103

Note:

95th percentile volume exceeds capacity, queue may be longer.
m Volume for 95th percentile queue is metered by upstream signal.
Queue shown is maximum after 2 two cycles.

TABLE 13
EXISTING + AMBIENT + PROJECT
RAMP MERGE/DIVERGE ANALYSIS (YEAR 2025)

Ramp	Existing + Ambient				Existing + Ambient + Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
SR 91 Westbound Offramp at Adams Street	13.1	B	14.2	B	13.1	B	14.2	B
SR 91 Westbound Onramp at Adams Street	21.8	B	24.4	C	21.9	C	25.0	C
SR 91 Eastbound Offramp at Adams Street	12.7	B	14.1	B	13.4	B	14.6	B
SR 91 Eastbound Onramp at Adams Street	42.0	F	43.6	F	42.9	F	44.7	F

these cumulate projects, and was distributed to the project area intersections and roadways based on anticipated trip distribution patterns. The cumulative traffic volumes were then added to the existing + ambient + project traffic volumes. Refer to **Appendix G** for the cumulative traffic volume analysis. **Exhibit 9** shows existing + ambient + cumulative + project traffic volumes (year 2025).

EXISTING + AMBIENT + CUMULATIVE + PROJECT OPERATIONS

Signalized Intersections

Table 14 shows that all project area signalized intersections are anticipated to operate at LOS C or better during both the AM and PM peak hour, with the exception of the following:

- Adams Street/Magnolia Avenue – LOS D during the AM and PM peak hour
- Adams Street/SR 91 WB Ramps – LOS E during the AM peak hour and LOS D during the PM peak hour
- Adams Street/SR 91 EB Ramps – LOS D during the AM Peak hour and LOS F during the PM peak hour
- Magnolia Avenue/Jackson Street – Los D during the PM peak hour
- Magnolia Avenue/Monroe Street – LOS D during the AM and PM peak hour

It should be noted that the City of Riverside has begun the Project Study Report (PSR) process, with Caltrans, for the improvements to the Adams Street/SR-91 interchange. Seven (7) alternatives are currently being considered. However, for this report's analysis, the existing configuration was assumed, as a preferred alternative has not yet been chosen. Improvements to the interchange will likely result in acceptable levels of service.

Unsignalized Intersections

Table 14 shows that each of the turning movements is anticipated to operate at LOS C or better during both the AM and PM peak hour.

Roadway Segments

Table 15 shows that all project area roadway segments are anticipated to operate at LOS D or better, with the exception of the following:

- Adams Street, between Briarwood Drive and Diana Avenue – LOS E
- Adams Street, between the SR-91 Eastbound and Westbound Ramps – LOS E

Queuing

Table 16 shows the existing + ambient + cumulative + project queuing at each of the critical movements of the studied signalized intersections.

Ramp Merge/Diverge Analysis

Table 17 shows the existing + ambient + cumulative + project merge/diverge analysis at each of the studied ramps.



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EXHIBIT 9

EXISTING + AMBIENT + CUMULATIVE + PROJECT TRAFFIC VOLUMES (YEAR 2025)
CALIFORNIA BAPTIST UNIVERSITY TRAFFIC ANALYSIS

LEGEND

XX/XX = AM PEAK HOUR/PM PEAK HOUR
XXXX = ADT

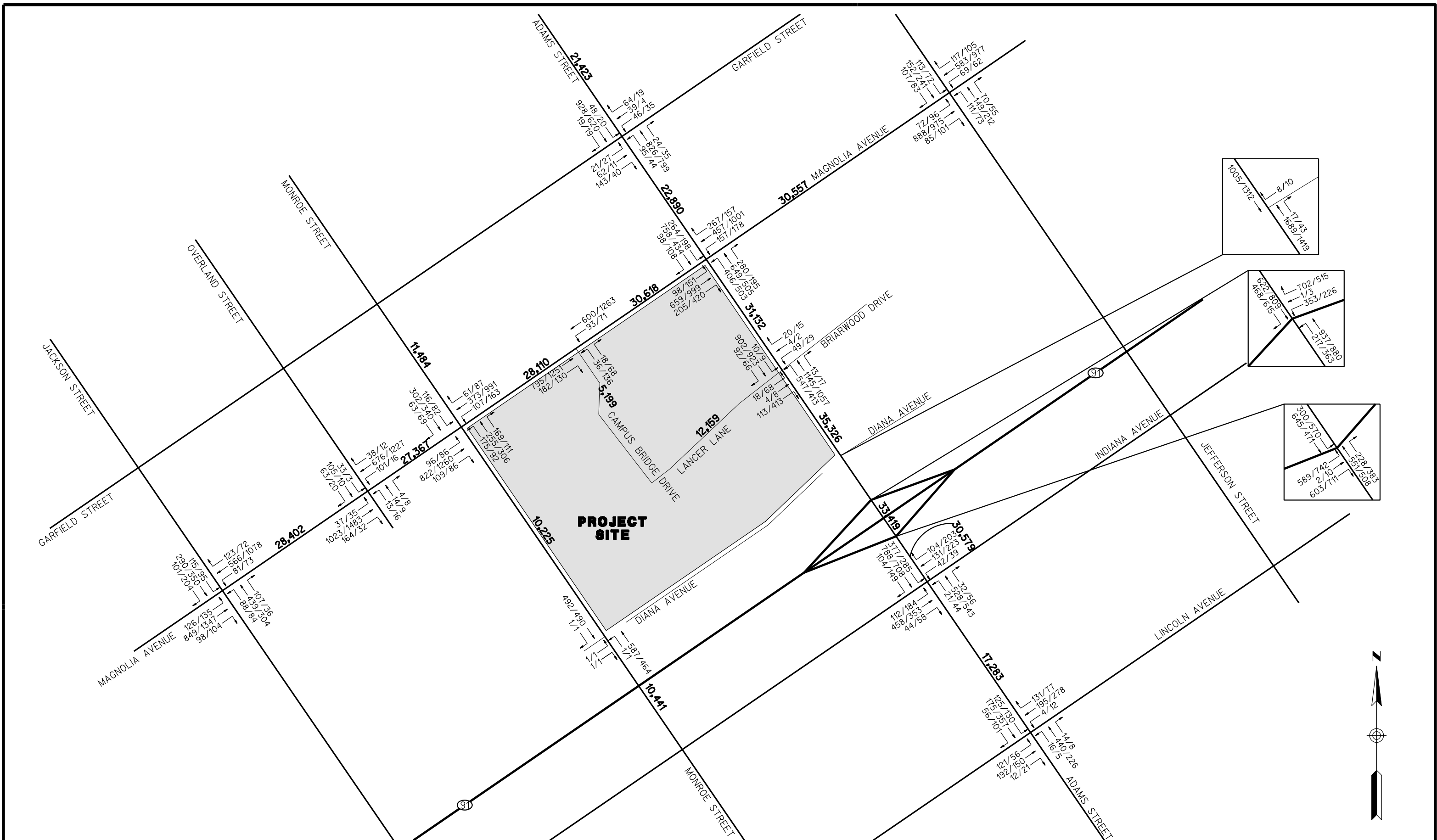


TABLE 14
EXISTING + AMBIENT + CUMULATIVE + PROJECT
INTERSECTION OPERATIONS (YEAR 2025)

Intersection	Existing + Ambient + Project				Existing + Ambient + Cumulative + Project				Significant Impact
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	
Adams Street & Garfield Street (Signalized)	14.4	B	7.5	A	15.7	B	7.5	A	No
Adams Street & Magnolia Avenue (Signalized)	-	-	-	-	-	-	-	-	-
Mitigated	41.9	D	39.1	D	42.5	D	41.0	D	No
Adams Street & Briarwood Drive (Signalized)	18.3	B	16.6	B	20.2	C	24.8	C	No
Adams Street & Plaza Driveway (Unsignalized)									
EB L/R	-	-	-	-	-	-	-	-	No
NB L	-	-	-	-	-	-	-	-	No
Adams Street & Diana Avenue (Unsignalized)									
EB R	-	-	-	-	-	-	-	-	No
WB R	20.8	C	17.2	C	21.0	C	17.8	C	No
Adams Street & SR 91 WB Ramps (Signalized)	61.1	E	39.0	D	71.3	E	42.2	D	Yes
Adams Street & SR 91 EB Ramps (Signalized)	44.6	D	116.1	F	48.6	D	119.0	F	Yes
Adams Street & Indiana Avenue (Signalized)	29.9	C	32.3	C	34.3	C	33.1	C	No
Adams Street & Lincoln Street (Signalized)	24.5	C	17.9	B	25.0	C	18.6	B	No
Magnolia Avenue & Jackson Street (Signalized)	31.8	C	44.9	D	31.9	C	47.4	D	No
Magnolia Avenue & Overland Street (Signalized)	6.5	A	2.7	A	6.6	A	2.7	A	No
Magnolia Avenue & Monroe Street (Signalized)	48.8	D	48.8	D	51.0	D	53.0	D	No
Magnolia Avenue & Campus View (Signalized)	5.8	A	7.9	A	7.0	A	8.7	A	No
Magnolia Street & Jefferson Avenue (Signalized)	31.9	C	29.2	C	34.4	C	31.5	C	No
Diana Avenue & Monroe Street (Unsignalized)									
EB L/T/R	18.7	C	16.4	C	19.4	C	17.3	C	No
WB L/T/R	-	-	-	-	-	-	-	-	No
NB L/T/R	0.0	A	0.0	A	0.0	A	0.0	A	No
SB L/T/R	0.0	A	0.0	A	0.0	A	0.0	A	No
Diana Avenue & Campus View (Unsignalized)									
EB L/T	-	-	-	-	-	-	-	-	-
SB L/R	-	-	-	-	-	-	-	-	-
Diana Avenue & Plaza Driveway (Unsignalized)									
EB L/T	-	-	-	-	-	-	-	-	-
SB L/R	-	-	-	-	-	-	-	-	-

*Significant Impact criteria per Exhibit F of City of Riverside Traffic Impact Analysis Preparation Guide, dated January 2016

TABLE 15
EXISTING + AMBIENT + CUMULATIVE + PROJECT
ROADWAY SEGMENT OPERATIONS (YEAR 2025)

Street Segment	Roadway Classification	LOS D Capacity	# of Lanes	Existing + Ambient + Project		Existing + Ambient + Cumulative + Project	
				ADT	LOS	ADT	LOS
Monroe Street							
b/w Garfield St & Magnolia Ave	Collector	12,499	2	11,430	D	11,484	D
b/w Magnolia Ave and Diana Ave	Arterial	17,999	2	10,181	<C	10,225	<C
b/w Diana Ave and Indiana Ave	Arterial	17,999	2	10,430	<C	10,441	<C
Magnolia Avenue							
b/w Jefferson St and Adams St	Special Boulevard*	32,999	4	30,256	D	30,557	D
b/w Adams St and Campus View	Special Boulevard*	32,999	4	30,320	D	30,618	D
b/w Campus View and Monroe St	Special Boulevard*	32,999	4	27,812	C	28,110	C
b/w Monroe St and Overland St	Special Boulevard*	32,999	4	27,077	C	27,367	C
b/w Overland St and Jackson St	Special Boulevard*	32,999	4	28,112	C	28,402	C
Adams Street							
b/w California Ave and Garfield St	Arterial	32,999	4	21,272	<C	21,426	<C
b/w Garfield St and Magnolia Ave	Arterial	32,999	4	22,765	<C	22,890	<C
b/w Magnolia Ave and Briarwood Dr	Arterial	32,999	4	31,009	D	31,132	D
b/w Briarwood Dr and Diana Ave	Arterial	32,999	4	35,139	E	35,326	E
b/w SR-91 WB and SR-91 EB Ramps	Arterial	32,999	4	33,176	E	33,419	E
b/w SR-91 EB Ramp and Indiana Ave	Arterial	32,999	4	30,288	D	30,579	D
b/w Indiana Ave and Lincoln Ave	Arterial	32,999	4	17,046	<C	17,283	<C

Note:

LOS D Capacity based on City of Riverside Roadway Capacity Exhibit D.

*Magnolia Avenue classified per City of Riverside Master Plan of Roadways and Magnolia Avenue Specific Plan.

TABLE 16
EXISTING + AMBIENT + CUMULATIVE + PROJECT
QUEUING (YEAR 2025)

Intersection Movement	Existing Storage Length (Feet)	95th Percentile Queue (Feet)			
		Existing + Ambient + Project		Existing + Ambient + Cumulative + Project	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Adams Street & Garfield Street					
Northbound Left-Turn	50	73	31	76	33
Southbound Left-Turn	50	46	19	46	19
Magnolia Avenue & Adams Street					
Eastbound Left-Turn	180	#137	#210	#137	#210
Eastbound Right-Turn(Mitigated)	100	153	179	128	176
Westbound Left-Turn	135	#218	#257	#222	#257
Northbound Left-Turn	145	#190	#230	#191	#236
Northbound Right-Turn	245	90	52	91	53
Southbound Left-Turn	105	#289	#212	#293	#212
Adams Street & Briarwood Drive					
Northbound Left-Turn	195	m#685	m#384	m#872	m#407
Southbound Left-Turn	48	22	21	26	21
Adams Street & SR 91 WB Ramps					
Westbound Left-Turn	-	#589	#385	#682	#408
Westbound Right-Turn	-	#540	212	#574	232
Northbound Left-Turn	170	m#234	m171	m#281	m173
Adams Street & SR 91 EB Ramps					
Eastbound Left-Turn	-	#625	#835	#735	#835
Eastbound Right-Turn	-	#509	#561	#587	#574
Southbound Left-Turn	170	m253	m#674	m300	m#667
Adams Street & Indiana Avenue					
Eastbound Left-Turn	130	144	197	166	#210
Westbound Left-Turn	95	#70	58	80	63
Northbound Left-Turn	145	43	63	50	67
Southbound Left-Turn	75	m249	m233	m431	m235
Adams Street & Lincoln Street					
Eastbound Left-Turn	120	#123	#58	#126	#68
Westbound Left-Turn	140	9	20	9	20
Northbound Left-Turn	150	19	10	21	11
Southbound Left-Turn	200	#128	100	#131	#119
Magnolia Avenue & Jackson Street					
Eastbound Left-Turn	170	#122	#160	#122	#160
Westbound Left-Turn	110	#105	#107	#105	#107
Northbound Left-Turn	150	#103	#112	#103	#123
Southbound Left-Turn	125	#142	#127	#142	#139
Magnolia Avenue & Overland Street					
Eastbound Left-Turn	110	18	10	16	10
Westbound Left-Turn	110	#105	6	#103	6
Magnolia Avenue & Monroe Street					
Eastbound Left-Turn	105	101	#105	102	#125
Westbound Left-Turn	115	#152	#232	#152	#232
Northbound Left-Turn	150	#211	#154	#215	#154
Northbound Right-Turn	150	31	41	31	41
Southbound Left-Turn	150	123	#136	123	#136
Magnolia Avenue & Campus View					
Westbound Left-Turn	160	94	72	68	#86
Northbound Left-Turn	100	40	116	32	79
Northbound Right-Turn	100	16	33	15	24
Magnolia Street & Jefferson Avenue					
Eastbound Left-Turn	110	#77	#135	#79	#113
Westbound Left-Turn	110	#97	#88	#97	#88
Northbound Left-Turn	140	#130	#89	#134	#92
Southbound Left-Turn	140	#137	#103	#137	#92

Note:

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

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

Queue shown is maximum after 2 two cycles.

TABLE 17
EXISTING + AMBIENT + CUMULATIVE + PROJECT
RAMP MERGE/DIVERGE ANALYSIS (YEAR 2025)

Ramp	Existing + Ambient + Project				Existing+ Ambient + Cumulative +Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
SR 91 Westbound Offramp at Adams Street	13.1	B	14.2	B	13.1	B	14.2	B
SR 91 Westbound Onramp at Adams Street	21.9	C	25.0	C	22.0	C	25.4	C
SR 91 Eastbound Offramp at Adams Street	13.4	B	14.6	B	13.5	B	14.6	B
SR 91 Eastbound Onramp at Adams Street	42.9	F	44.7	F	43.0	F	44.8	F

GENERAL PLAN BUILDOUT OPERATIONS

Buildout daily traffic volumes for the City of Riverside's General Plan Buildout (Year 2025) were obtained from the County of Riverside's RivTAM model (Year 2035). The RivTAM model was utilized within this study for the City's buildout year of 2025, as it was updated in year 2016 by Urban Crossroads with data specific to this project (12,000 students for TAZ 3376), and contains current/up-to-date land uses throughout Riverside County. The buildout traffic volumes are contained in **Appendix H**. These daily buildout volumes, along with existing segment volumes and existing turning movement counts, were utilized to determine buildout turning movement volumes.

Additionally, the City's Master Plan of Roadways (Figure CCM-4) and the Magnolia Avenue Specific Plan were utilized to determine the General Plan Buildout condition number of travel lanes and intersection geometry. Refer to **Exhibit 10** for the general plan buildout transportation conditions. Refer to **Appendix H** for the buildout analysis calculations. Refer to **Exhibit 11** for the general plan buildout traffic volumes without the project and **Exhibit 12** for the general plan buildout traffic volumes with the project traffic included.

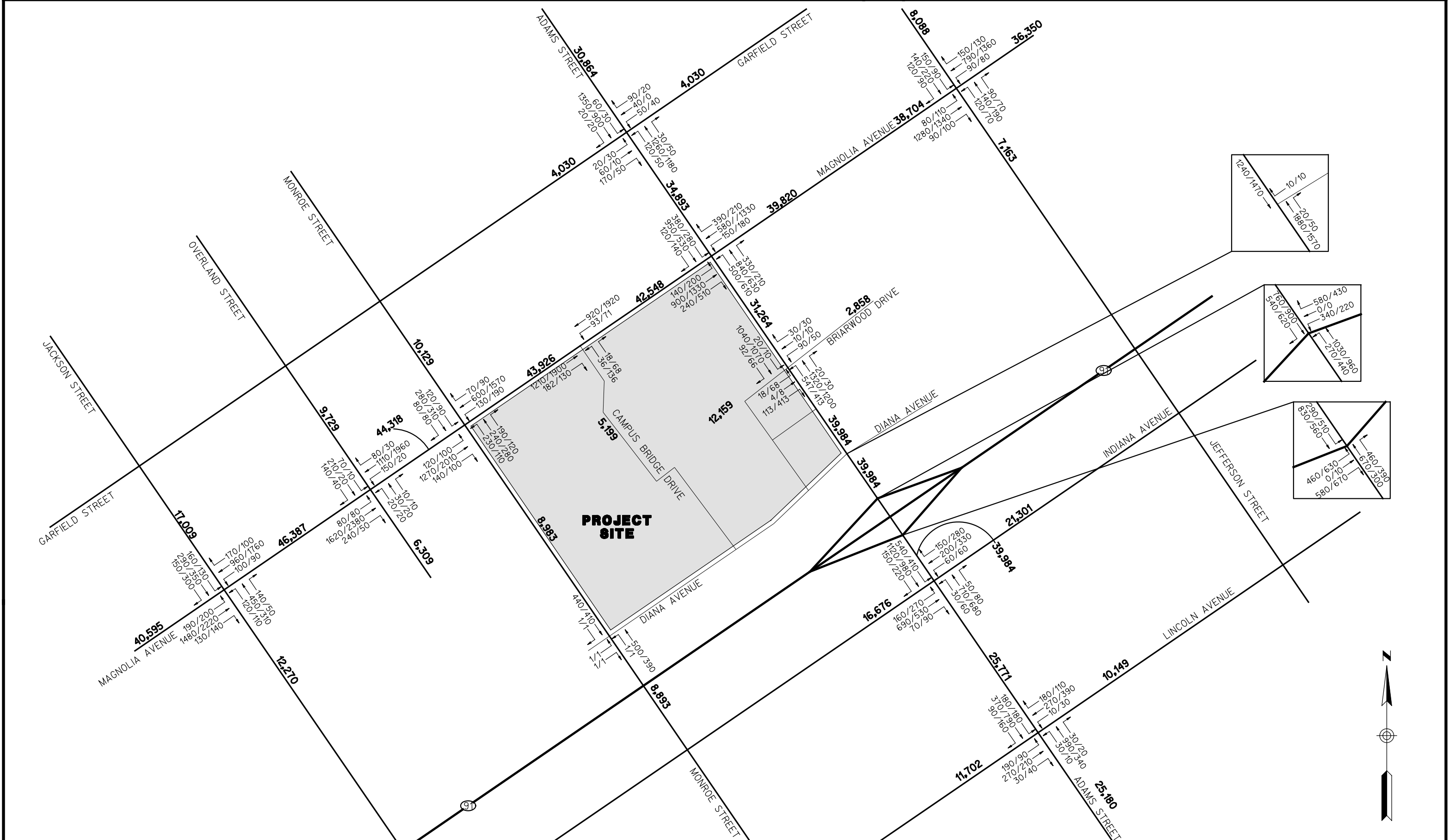
Signalized Intersections

Table 18 shows that all project area signalized intersections are anticipated to operate at LOS C or better during both the AM and PM peak hour without project traffic, with the exception of the following:

- Adams Street/Magnolia Avenue – LOS E during the AM and PM peak hour
- Adams Street/SR-91 Westbound Ramp – LOS D during the AM peak hour
- Adams Street/SR-91 Eastbound Ramp – LOS D during the AM peak hour and LOS F during the PM peak hour
- Adams Street/Indiana Avenue – LOS D during the AM and PM peak hour
- Adams Street/Lincoln Street – LOS D during the AM peak hour
- Magnolia Avenue/Jackson Street – LOS E during the AM peak hour and LOS F during the PM peak hour.
- Magnolia Avenue/Monroe Street – LOS F during the AM and PM peak hour
- Magnolia Avenue/Jefferson Avenue – LOS E during the AM peak hour

Instances where significant impacts occurred after the addition of project traffic were at intersections that were already operating at an LOS D or worse. All of these intersections, with the exception of the SR 91 Ramps, were along Magnolia Avenue. This is important to note, as the Magnolia Avenue corridor is anticipated to operate at an LOS E as a 4-lane Special Boulevard at the General Plan Buildout Conditions. The City's General Plan indicates that the corridor will remain a 4-lane roadway. However, the *Magnolia Avenue Specific Plan*, adopted November 10, 2009 indicates the integration of a rapid bus transit system is a consideration for the reduction of traffic volumes along this corridor. In light of this information, the intersections could operate at acceptable levels of service once this system is in place and make mitigation unnecessary.

Regarding the SR-91 ramps, it should be noted that the City of Riverside has begun the Project Study Report (PSR) process, with Caltrans, for the improvements to the Adams Street/SR-91 interchange. Seven (7) alternatives are currently being considered. However, for this report's



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EXHIBIT 12

GENERAL PLAN BUILDOUT TRAFFIC VOLUMES w/ PROJECT (YEAR 2025)
CALIFORNIA BAPTIST UNIVERSITY TRAFFIC ANALYSIS

LEGEND
XX/XX = AM PEAK HOUR/PM PEAK HOUR
XXXX = ADT

**TABLE 18
GENERAL PLAN BUILDOUT
INTERSECTION OPERATIONS (YEAR 2025)**

Intersection	Without Project				With Project				Significant Impact
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	
Adams Street & Garfield Street (Signalized)	30.4	C	7.2	A	30.9	C	9.6	A	No
Adams Street/Magnolia Avenue (Signalized) - Mit	74.8	E	63.0	E	76.8	E	66.9	E	Yes
Adams Street/Briarwood Drive (Signalized) - Mit.	14.1	B	17.3	B	19.3	B	22.1	C	No
Adams Street & Diana Avenue (Unsignalized) WB R	26.8	D	21.8	C	28.1	D	22.5	C	No
Adams Street & SR 91 WB Ramps (Signalized)	37.3	D	15.6	B	52.7	D	28.1	C	Yes
Adams Street & SR 91 EB Ramps (Signalized)	38.3	D	96.6	F	42.0	D	98.6	F	Yes
Adams Street & Indiana Avenue (Signalized)	36.8	D	46.1	D	40.4	D	49.2	D	No
Adams Street & Lincoln Street (Signalized)	38.2	D	22.1	C	40.6	D	22.1	C	No
Magnolia Avenue & Jackson Street (Signalized)	75.9	E	109.5	F	77.2	E	109.9	F	No
Magnolia Avenue & Overland Street (Signalized)	24.0	C	10.1	A	29.5	C	10.5	B	No
Magnolia Avenue & Monroe Street (Signalized)	92.1	F	107.4	F	95.8	F	112.0	F	Yes
Magnolia Avenue & Campus View (Signalized)	16.3	B	32.2	C	5.9	A	11.9	B	No
Magnolia Street & Jefferson Avenue (Signalized)	58.0	E	40.3	D	61.0	E	40.3	D	Yes
Diana Avenue & Monroe Street EB L/R	16.8	C	16.3	C	16.8	C	14.8	B	No
NB L	8.5	A	8.4	A	8.5	A	8.4	A	No

*Significant Impact criteria per Exhibit F of City of Riverside Traffic Impact Analysis Preparation Guide, dated January 2016

analysis, the existing configuration was assumed, as a preferred alternative has not yet been chosen. Improvements to the interchange will likely result in acceptable levels of service.

Unsignalized Intersections

Table 18 shows that each of the turning movements is anticipated to operate at LOS C or better during both the AM and PM peak hour, with the exception of the following:

- Adams Street/Diana Avenue – LOS D during the AM peak hour

Table 18 also shows the impact of the addition of project traffic to the General Plan Buildout on the project vicinity signalized and unsignalized intersections. The project area intersections will operate at similar levels of service. However, per the City of Riverside’s *Level of Service Standards*, significant impacts were shown at the following intersections:

- Adams Street/Magnolia Avenue
- Adams Street/SR-91 Westbound Ramp
- Adams Street/SR-91 Eastbound Ramp
- Magnolia Street/Monroe Street
- Magnolia Street/Jefferson Street

Roadway Segments

Table 19 shows that all project area roadway segments are anticipated to operate at LOS D or better, with the exception of the following:

- Magnolia Avenue, between Jefferson Street and Adams Street – LOS E
- Magnolia Avenue, between Adams Street and Campus View Drive – LOS E
- Magnolia Avenue, between Campus View Drive and Monroe Street – LOS E
- Magnolia Avenue, between Monroe Street and Overland Street – LOS E
- Magnolia Avenue, between Overland Street and Jackson Street – LOS E
- Adams Street, between Garfield Street and Magnolia Avenue – LOS E

Table 19 also shows that the addition of project traffic has a minimal impact on the General Plan Buildout on the project roadway segments analyzed. The roadways will continue to operate at similar levels of service. It should be noted that the feasibility of widening Adams Street, between Garfield Street and Magnolia Avenue was explored, to determine potential impacts. Widening to 6 lanes along this segment appears to have significant impacts to adjacent single family homes as well as the Magnolia Avenue Baptist Church, and is therefore considered to be a significant and unavoidable impact. Refer to **Appendix N** for an exhibit depicting the Adams Street widening feasibility.

Queuing

Table 20 shows the General Plan Buildout queuing, without and with the project traffic, at each of the critical movements of the studied signalized intersections.

TABLE 19
GENERAL PLAN BUILDOUT
ROADWAY SEGMENT OPERATIONS (YEAR 2025)

Street Segment	Roadway Classification	LOS D Capacity	# of Lanes	Buildout w/o Project		Buildout w/ Project	
				ADT	LOS	ADT	LOS
Monroe Street							
b/w Garfield St & Magnolia Ave	Collector	12,499	2	10,129	C	10,129	C
b/w Magnolia Ave and Diana Ave w/o improvements	Arterial	17,999	2	8,983	<C	8,983	<C
b/w Magnolia Ave and Diana Ave w/ improvements	Arterial	32,999	4	8,983	<C	8,983	<C
b/w Diana Ave and Indiana Ave	Arterial	32,999	4	8,983	<C	8,983	<C
Magnolia Avenue							
b/w Jefferson St and Adams St	Special Boulevard*	32,999	4	38,556	E	38,820	E
b/w Adams St and Campus View	Special Boulevard*	32,999	4	41,954	E	42,458	E
b/w Campus View and Monroe St	Special Boulevard*	32,999	4	43,569	E	43,926	E
b/w Monroe St and Overland St	Special Boulevard*	32,999	4	43,995	E	44,318	E
b/w Overland St and Jackson St	Special Boulevard*	32,999	4	46,066	E	46,387	E
Adams Street							
b/w California Ave and Garfield St	Arterial	32,999	4	30,756	D	30,864	D
b/w Garfield St and Magnolia Ave	Arterial	32,999	4	34,813	E	34,893	E
b/w Magnolia Ave and Briarwood Dr w/o improvements	Arterial	32,999	4	31,574	D	31,264	D
b/w Magnolia Ave and Briarwood Dr w/ improvements	Arterial	41,249	5	31,574	<C	31,264	<C
b/w Briarwood Dr and Diana Ave	Arterial	41,249	5	39,027	D	39,984	D
b/w SR-91 WB Ramp and Indiana Ave	Arterial	41,249	5	39,027	D	39,984	D
b/w Indiana Ave and Lincoln Ave	Arterial	32,999	4	25,702	<C	25,771	<C

Note:

LOS D Capacity based on City of Riverside Roadway Capacity Exhibit D.

*Magnolia Avenue classified per City of Riverside Master Plan of Roadways and Magnolia Avenue Specific Plan.

**TABLE 20
GENERAL PLAN BUILDOUT
QUEUEING (YEAR 2025)**

Intersection Movement	Existing Storage Length (Feet)	95th Percentile Queue (Feet) w/o Project		95th Percentile Queue (Feet) w/ Project	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Adams Street & Garfield Street					
Northbound Left-Turn	50	m94	35	#112	35
Southbound Left-Turn	50	59	26	54	26
Magnolia Avenue & Adams Street					
Eastbound Left-Turn	180	#263	m188	m#157	m181
Eastbound Right-Turn(Mitigated)	100	-	-	161	171
Westbound Left-Turn	135	#300	#365	#300	#365
Northbound Left-Turn	145	#343	#467	#357	#478
Southbound Left-Turn	105	#583	#508	#598	#508
Adams Street & Briarwood Drive					
Eastbound Left-Turn	-	N/A	N/A	41	#117
Northbound Left-Turn	250	m36	m43	332	157
Southbound Left-Turn	48	103	18	46	18
Adams Street & SR 91 WB Ramps					
Westbound Right-Turn	-	362	162	304	175
Northbound Left-Turn	170	123	m121	m96	m115
Adams Street & SR 91 EB Ramps					
Eastbound Right-Turn	-	#499	#478	#457	#493
Southbound Left-Turn	-	m#290	#452	m#244	#494
Adams Street & Indiana Avenue					
Eastbound Left-Turn	130	#227	#298	#223	#322
Westbound Left-Turn	95	#128	#90	#101	#90
Northbound Left-Turn	145	52	70	44	70
Southbound Left-Turn	75	m#533	m#375	m#475	m#384
Adams Street & Lincoln Street					
Eastbound Left-Turn	120	#186	#90	#186	#90
Westbound Left-Turn	140	20	41	23	41
Northbound Left-Turn	150	40	19	46	19
Southbound Left-Turn	200	#184	149	#187	149
Magnolia Avenue & Jackson Street					
Eastbound Left-Turn	170	#267	#417	#297	#417
Westbound Left-Turn	150	#198	#255	m#197	#255
Northbound Left-Turn	155	#208	#288	#196	#288
Southbound Left-Turn	150	#283	#281	#300	#281
Magnolia Avenue & Overland Street					
Eastbound Left-Turn	150	#81	#87	m32	#87
Westbound Left-Turn	150	#156	10	#156	10
Magnolia Avenue & Monroe Street					
Eastbound Left-Turn	150	176	#236	176	#236
Westbound Left-Turn	150	#277	#414	#277	#426
Northbound Left-Turn	150	#398	#289	#409	#289
Northbound Right-Turn	150	89	95	88	102
Southbound Left-Turn	150	184	#213	184	#213
Magnolia Avenue & Campus View					
Westbound Left-Turn	150	284	#372	81	#139
Northbound Left-Turn	100	51	#251	42	216
Northbound Right-Turn	100	44	86	18	49
Magnolia Street & Jefferson Avenue					
Eastbound Left-Turn	150	#101	#165	#101	#165
Westbound Left-Turn	150	#143	#136	#143	#136
Northbound Left-Turn	145	#171	#117	#171	#117
Southbound Left-Turn	135	#199	#142	#199	#142

Note:

95th percentile volume exceeds capacity, queue may be longer.
m Volume for 95th percentile queue is metered by upstream signal.
Queue shown is maximum after 2 two cycles.
Refer to Appendix M for Queueing Exhibits

Ramp Merge/Diverge Analysis

Table 21 shows the General Plan Buildout, without and with project traffic, merge/diverge analysis at each of the studied ramps.

CONCLUSIONS/RECOMMENDATIONS

The study evaluated any potential traffic impacts due to the proposed expansion of California Baptist University to 12,000 students by year 2025. In year 2025, the project is anticipated to generate 17,280 ADT with 1,080 AM peak hour trips (907 inbound/173 outbound) and 1,320 PM peak hour trips (647 inbound/673 outbound). This represents an increase of 5,291 daily trips, 349 AM peak hour trips (293 inbound/56 outbound) and 589 PM peak hour trips (289 inbound/300 outbound), in comparison to the existing trips. By year 2025 (the City of Riverside's General Plan assumed buildout year), California Baptist University will consist of an additional 5,804-seat arena (*Occupancy was October 2017*), with a total of 12,000 students.

Existing + Project Conditions

Based on the analysis shown in Appendix K for Existing + Project Conditions, all study intersections are anticipated to operate at an acceptable level of service based on City of Riverside thresholds, with the exception of the following:

- Adams Street/SR 91 WB Ramps
- Adams Street/SR 91 EB Ramps

It should be noted that for the above listed intersections, the City of Riverside has begun the Project Study Report (PSR) process with Caltrans for the improvements to the Adams Street/SR 91 interchange.

The queuing analysis for Existing + Project Conditions shows that the following turn lane movements are anticipated to exceed the available storage capacity:

- Magnolia Avenue/Adams Street: westbound left-turn, 289 feet during AM peak hour, and 270 feet during PM peak hour (storage pocket length is 135 feet). It should be noted that this movement currently exceeds the available storage for both the AM and PM peak hours of existing conditions.
- Magnolia Avenue/Monroe Street: westbound left-turn, 141 feet during the AM peak hour, and 288 feet during the PM peak hour (storage pocket length is 115 feet). It should be noted that this movement currently exceeds the available storage for both the AM and PM peak hours of existing conditions.
- Magnolia Avenue/Monroe Street: southbound left-turn, 172 feet during the AM peak hour, and 183 feet during the PM peak hour (storage pocket length is 150 feet).

The following improvements are planned to be instituted in accordance with conditions of approval placed on the CBU event center:

Adams Street at Lancer Lane/Briarwood Drive

Construct an additional northbound left-turn lane (for a total of 2 left-turn lanes into the campus), and increase both storage pockets to 250 feet in length.

TABLE 21
GENERAL PLAN BUILDOUT
RAMP MERGE/DIVERGE ANALYSIS (YEAR 2025)

RAMP	Buildout w/o Project				Buildout w/ Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
SR 91 Westbound Offramp at Adams Street	13.2	B	14.3	B	13.2	B	14.2	B
SR 91 Westbound Onramp at Adams Street	23.0	C	26.0	C	27.1	C	29.9	D
SR 91 Eastbound Offramp at Adams Street	12.8	B	13.6	B	12.7	B	13.7	B
SR 91 Eastbound Onramp at Adams Street	22.1	C	22.4	C	22.2	C	22.5	C

Lancer Lane

Construct Lancer Lane at Adams Street to include 2 inbound lanes and 3 outbound lanes (1 left-turn lane, 1 through lane, 1 right-turn lane). Provide 200 feet of storage for the left-turn lane. This internal roadway will continue to connect to Magnolia Avenue, and will serve as the primary internal roadway to the campus.

Adams Street

Dedicate and construct the project's frontage improvements along Adams Street, to a 6 lane arterial with 120 feet of right-of-way, to include 3 travel lanes in the southbound direction and 2 lanes in the northbound direction between Briarwood Drive and the SR-91 Westbound Ramp and maintain the existing 2 travel lanes in the northbound and southbound direction from Briarwood Drive to Magnolia Avenue.

The following improvements are planned to be instituted when related frontage projects are built, no associated project year:

Monroe Street

Dedicate and construct the project's frontage improvements along Monroe Street, ultimately a 4 lane arterial with 88 feet of right-of-way, to include 2 travel lanes in the northbound direction.

In addition to the above listed improvements, the following recommendations are proposed for the project at year 2025:

Adams Street at Magnolia Avenue

Contribute the project's fair-share of 43% to construct an exclusive eastbound right-turn lane with a minimum storage length of 100 feet. Additionally, modify signal phasing to include a right-turn overlap. See Appendix L for fair-share calculations.

Adams Street, from Garfield Street to Magnolia Avenue

The buildout roadway segment analysis shows that Adams Street, from Garfield Street to Magnolia Avenue (classified as a 4-lane Arterial roadway) is anticipated to operate at LOS E for both General Plan Buildout without Project, and General Plan Buildout with Project conditions. The feasibility of widening Adams Street, between Garfield Street and Magnolia Avenue to a 6-lane Arterial was explored, to determine potential impacts. Widening to 6 lanes along this segment would have significant impacts to adjacent single family homes as well as the Magnolia Avenue Baptist Church, and is therefore considered to be a significant and unavoidable impact. Refer to **Appendix N** for an exhibit depicting the Adams Street widening feasibility.

In addition to the improvements identified above for project at Year 2025, the following improvements are recommended for General Plan Buildout Plus Project Conditions:

Magnolia Avenue and Adams Street

The queuing analysis for General Plan Buildout plus Project conditions shows that the 95th percentile queue is anticipate to exceed the available storage length for each of the approaches to the intersection. To help mitigate this, the project should contribute a fair share contribution, calculated to be 13.65% for the following improvements:

- Adams Street southbound approach – restripe to include 2-300 foot left-turn lanes within the existing roadway.

- Adams Street northbound approach – restripe to include 2-240 foot left-turn lanes within the existing roadway.
- Magnolia Avenue eastbound approach – modify the existing raised median to provide 265 feet of storage.
- Magnolia Avenue westbound approach – modify the existing raised median to provide 365 feet of storage.

Magnolia Avenue and Jackson Street

The queuing analysis for General Plan Buildout plus Project conditions shows that the 95th percentile queue is anticipate to exceed the available storage length for each of the approaches to the intersection. To help mitigate this, the project should contribute a fair share contribution, calculated to be 6.67% for the following improvements:

- Jackson Street northbound approach – restripe to include 1-290 foot left-turn lane within the existing roadway.
- Jackson Street southbound approach – remain as-is. Lengthening the turn pocket cannot be achieved without impacting access to adjacent businesses, adding a 2nd left-turn lane does not fit within the existing roadway width, and widening the roadway for 2nd left-turn lane would impact the existing adjacent businesses. This is considered to be a significant and unavoidable impact.
- Magnolia Avenue eastbound approach – modify the existing raised median to provide 420 feet of storage.
- Magnolia Avenue westbound approach – modify the existing raised median to provide 255 feet of storage.

Magnolia Avenue and Monroe Street

The queuing analysis for General Plan Buildout plus Project conditions shows that the 95th percentile queue is anticipate to exceed the available storage length for each of the approaches to the intersection. To help mitigate this, the project should contribute a fair share contribution, calculated to be 18.49% for the following improvements:

- Monroe Street northbound approach – restripe to include 1-410 foot left-turn lane within the existing roadway.
- Monroe Street southbound approach – restripe to include 1-215 foot left-turn lane within the existing roadway.
- Magnolia Avenue eastbound approach – modify the existing raised median to provide 240 feet of storage.
- Magnolia Avenue westbound approach – modify the existing raised median to provide 430 feet of storage.

Garfield Street and Adams Street

The queuing analysis for General Plan Buildout plus Project conditions shows that the 95th percentile queue is anticipate to exceed the available storage length for the northbound approach to the intersection. To help mitigate this, the project should contribute a fair share contribution, calculated to be 14.50 % for the following improvement:

- Garfield Street northbound approach – restripe to include 1-115 foot left-turn lane within the existing roadway.

Magnolia Avenue and Jefferson Street

The queuing analysis for General Plan Buildout plus Project conditions shows that the 95th percentile queue is anticipate to exceed the available storage length for each of the approaches to the intersection. To help mitigate this, the project should contribute a fair share contribution, calculated to be 11.01% for the following improvements:

- Jefferson Street northbound approach – restripe to include 1-175 foot left-turn lane within the existing roadway.
- Jefferson Street southbound approach – restripe to include 1-200 foot left-turn lane within the existing roadway.

REFERENCES

1. Caltrans Division of Traffic Operations, California Manual on Uniform Traffic Control Devices, Sacramento, CA, 2014.
2. City of Riverside, Magnolia Avenue Specific Plan, Riverside, CA, 2009.
3. City of Riverside, Master Plan of Roadways (Circulation Element Figure CCM-4), Riverside, CA, 2007.
4. City of Riverside, Traffic Impact Analysis Preparation Guide, Riverside, CA, 2016.
5. City of Riverside/Meyer, Mohaddes Associates, Maximum Density Alternative W/ PRD Traffic Volumes, Riverside, CA.
6. Riverside County Transportation and Analysis Model (RivTam), 2035.
7. McTrans, HCS, Version 4.1f, Gainesville, FL, 2003.
8. Trafficware, SYNCHRO, Version 9, Build 773, Berkeley, California, 2007.
9. Transportation Research Board, Highway Capacity Manual, Washington, D.C., 2010.

APPENDIX A

Approved Scoping Agreement

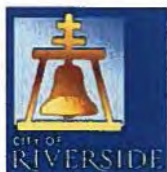


Exhibit B

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

This letter acknowledges the City of Riverside Public Works Traffic Engineering Division requirements for traffic impact analysis of the following project. The analysis must follow the City Traffic Impact Analysis Preparation Guide dated December 2014.

Case No. _____

Related Cases - _____

SP No. _____

EIR No. _____

GPA No. _____

CZ No. _____

Project Name: California Baptist University Traffic Impact Study

Project Location: 8432 Magnolia Avenue, Riverside, CA 92504

Project Description: Prepare TIS for CBU's Specific Plan-Increase in students from 8,323(exist) to 12,000(buildout).

	<u>Consultant</u>	<u>Developer</u>
Name:	<u>Rick Engineering Company</u>	<u>California Baptist University</u>
Address:	<u>5620 Friars Road</u>	<u>8432 Magnolia Avenue</u>
	<u>San Diego, CA 92110</u>	<u>Riverside, CA</u>
Telephone:	<u>(619) 291-0707</u>	<u>(951) 343-4303</u>

A. Trip Generation Source: Trip rate calculated from existing counts/existing number of students

Existing Land Use	<u>Institutional</u>	Proposed Land Use	<u>Institutional</u>
Existing Zoning	<u>Institutional</u>	Proposed Zoning	<u>Institutional</u>
Total Daily Trips	<u>5,291</u>		

	In	Out	Total	
AM Trips	<u>293</u>	<u>56</u>	<u>349</u>	} PROPOSED NEW TRIPS
PM Trips	<u>289</u>	<u>300</u>	<u>589</u>	

Internal Trip ☐ Yes ☒ No (_____ % Trip Discount)

Allowance

Pass-By Trip Allowance ☐ Yes ☒ No (_____ % Trip Discount)

(Attach additional sheet if this is a multi-use site with a breakdown of trips generated)

B. Trip Geographic Distribution: N 15 % S 15 % E 35 % W 35 %
(See attached exhibit for detailed assignment)

C. Background Traffic

Project Completion Year: 2025 Annual Ambient Growth Rate: 1 %

Other area projects to be included: To be provided by the City of Riverside

Please contact Planning Division or use the most recently provided data

Model/Forecast methodology if required _____

D. Build-out Studies: Does this project require a Build-out Study per TIA Guideline Section 7.2?

☒ Yes ☐ No

E. Study intersections: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)

- | | |
|-----------------------------------|----------|
| 1. <u>Refer to Attachment 'A'</u> | 5. _____ |
| 2. _____ | 6. _____ |
| 3. _____ | 7. _____ |
| 4. _____ | 8. _____ |

F. Study Roadway Segments (For Build-out Studies):

- | | |
|-----------------------------------|----------|
| 1. <u>Refer to Attachment 'A'</u> | 5. _____ |
| 2. _____ | 6. _____ |
| 3. _____ | 7. _____ |
| 4. _____ | 8. _____ |

G. Other Jurisdictional Impacts

Is this project within any other Agency's Sphere of Influence or one-mile radius of boundaries? ☒ Yes ☐ No

If so, name of Jurisdiction: Caltrans

H. Site Plan (please attach a legible 11'X17' copy)

I. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (To be filled out by Public Works Traffic Department)

Recommended by:

Jesus Cruz
Consultant's Representative

1/28/16

Date

Scoping Agreement Submitted on

Date

Scoping Agreement Resubmitted on

4/21/16

Date

Approved Scoping Agreement:

[Signature]
City of Riverside
Traffic Engineering Division

4/27/16

Date

cc: Planning Division

ATTACHMENT 'A'

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY (CONTINUED)

E. Study Intersections

- | | |
|---|---|
| 1. Adams Street @ Garfield Street | 10. Magnolia Avenue @ Jackson Street |
| 2. Adams Street @ Magnolia Avenue | 11. Magnolia Avenue @ Overland Street |
| 3. Adams Street @ Lancer Lane/Briarwood Drive | 12. Magnolia Avenue @ Monroe Street |
| 4. Adams Street @ Plaza Driveway | 13. Magnolia Avenue @ Campus Bridge Drive |
| 5. Adams Street @ Diana Avenue | 14. Magnolia Avenue @ Jefferson Street |
| 6. Adams Street @ SR91 WB Ramps | 15. Monroe Street @ Diana Avenue |
| 7. Adams Street @ SR 91 EB Ramps | 16. Diana Avenue @ Campus View |
| 8. Adams Street @ Indiana Avenue | 17. Diana Avenue @ Plaza Driveway |
| 9. Adams Street @ Lincoln Avenue | |

F. Study Roadway Segments

- | | |
|---|--|
| 1. Adams St b/w California Ave & Garfield St | 11. Magnolia Ave b/w Campus Bridge Dr & Adams St |
| 2. Adams St b/w Garfield St & Magnolia Ave | 12. Magnolia Ave b/w Adams St & Jefferson St |
| 3. Adams St b/w Magnolia Av & Briarwood/Lancer Ln | 13. Monroe St b/w Garfield St & Magnolia St |
| 4. Adams St b/w Briarwood/Lancer Ln & Diana Ave | 14. Monroe St b/w Magnolia St & Diana Ave |
| 5. Adams St b/w SR 91 WB & SR 91 EB Ramps | 15. Monroe St b/w Diana Ave & Indiana Ave |
| 6. Adams St b/w SR91 EB Ramps & Indiana Ave | 16. Diana Ave b/w Monroe St & Campus View |
| 7. Adams St b/w Indiana Ave & Lincoln Ave | 17. Diana Ave b/w Campus View & Adams St |
| 8. Magnolia Ave b/w Jackson St & Overland St | 18. Campus View Drive, South of Magnolia |
| 9. Magnolia Ave b/w Overland St & Monroe St | 19. Campus View Drive, North of Diana |
| 10. Magnolia Ave b/w Monroe St & Campus Bridge Dr | |

Project Analysis Scenarios

1. Existing Conditions
2. Existing + Ambient (Project Buildout Year 2025)
3. Existing + Ambient + Project (Project Buildout Year 2025)
4. Existing + Cumulative + Project (Project Buildout Year 2025)
5. General Plan Buildout (Year 2025)

Operational Analysis

Operation analysis will be conducted using Synchro 7 for capacity analysis and queuing analysis.

General Plan buildout analysis will be conducted using City of Riverside model (to be provided by City).

NCHRP Report 255 Guidelines will be utilized to perform General Plan buildout analysis.

Trip Generation Rates

Trip generation will be calculated based on a calculated rate from the existing number of students on the campus divided by the existing traffic volume counts entering/exiting the campus. Counts will be performed on the school days with the highest occupancy of students on campus. A detailed explanation of the trip generation will be provided in the traffic study.

1. **PLANNING CASES P09-0185**: Proposal by Taso Politis for a Conditional Use Permit to establish a drive-thru restaurant use within an existing vacant 280-square-foot drive-thru building on an approximately .9-acre lot also developed with an auto repair facility located at 7590 Indiana Avenue, situated on the southerly side of Indiana Avenue, between Madison Street and Winstrom Street, in the CG– Commercial General Zone, in Ward 4.
2. **PLANNING CASE P10-0438**: DR; Magnolia Garden Condominiums.
3. **PLANNING CASE P14-0450**: Revised CUP; to establish classrooms and laboratories within 5 office and warehouse lease spaces; California Baptist University.
4. **PLANNING CASE P14-0673; P14-0675; P14-0928**: CUP, LC, PC or N; Walgreens with Drive Thru Pharmacy.
5. **PLANNING CASE P15-0847**: CUP: Madison Plaza – Conditional Use Permit and Initial Study to allow a full-service health club in conjunction with a 38,000-square foot health club operating 24 hours per day Monday through Sunday.
6. **PLANNING CASES P12-0184; P12-0185; P12-0187**: General Plan Amendment to change property from MDR to C; Rezoning from R-1-7000 to C; and Design review to facilitate the construction of a multiple tenant retail building on a two parcel site, known as the Azar Plaza.
7. **PLANNING CASE P09-0147**: Proposal by Shackelton Consulting, on behalf of Hamblins Body Paint & Frame, Inc., for a Conditional Use Permit to allow new and used car sales, accessory and tire sales/installation, and auto body repair and painting within an existing 12,510 square foot building located at 7840 Indiana Avenue, situated on the southerly side of Indiana Avenue, easterly of Jefferson Street, in the CG – SP – Commercial General and Auto Center Specific Plan Overlay Zones, in Ward # 4.

Existing driveway volumes @ Magnolia Ave / Campus View &
@ Diana Ave / Campus View

$$\begin{aligned}\text{AM: Entering trips} &= 169 + 285 + 106 + 56 \\ &= 616 \text{ (84\%)}\end{aligned}$$

$$\begin{aligned}\text{Exiting trips} &= 30 + 73 + 4 + 8 \\ &= 115 \text{ (16\%)}\end{aligned}$$

$$\text{Total trips} = 731 \text{ (100\%)}$$

$$\begin{aligned}\text{PM: Entering trips} &= 147 + 231 + 51 + 18 \\ &= 447 \text{ (49\%)}\end{aligned}$$

$$\begin{aligned}\text{Exiting trips} &= 134 + 210 + 91 + 28 \\ &= 463 \text{ (51\%)}\end{aligned}$$

$$\text{Total trips} = 910 \text{ (100\%)}$$

$$\begin{aligned}\text{ADT: Entering trips} &= 1833 + 4517 \\ &= 6350\end{aligned}$$

$$\begin{aligned}\text{Exiting trips} &= 1468 + 4171 \\ &= 5639\end{aligned}$$

$$\text{Total trips} = 11,989$$

Trip Generation based on existing counts / existing students

AM : Rate = 731 trips / 8323 students (existing)
= 0.09 trips/student (existing)

Total trips = 0.09 trips/student $\times$ 12,000 students (2025)
= 1080 Trips
84% Entering, 16% Exiting
907 Entering, 173 Exiting

PM : Rate = 910 trips / 8323 students (existing)
= 0.11 trips/student (existing)

Total trips = 0.11 trips/student $\times$ 12,000 students (2025)
= 1320 Trips
49% Entering, 51% Exiting
647 Entering, 673 Exiting

ADT : Rate = 11,989 trips / 8323 students (existing)
= 1.44 trips/student

Total trips = 1.44 trips/student $\times$ 12,000 students (2025)
= 17,280 trips

New Trips:

AM : 1080 - 731 = 349 (293 Entering, 56 Exiting)

PM : 1320 - 910 = 410 (289 Entering, 300 Exiting)

ADT: 17,280 - 11,989 = 5,291

Trip Generation

12,000 total students projected by 2025

Land Use Code 550 : University / College

ADT: $\ln(T) = 0.86 \ln(X) + 1.93$
 $\ln(T) = 0.86 \ln(12,000) + 1.93$
 $\ln(T) = 10.01$
 $T = 22,248 \text{ Trips}$

AM : $\ln(T) = 0.88 \ln(X) - 0.68$
 $\ln(T) = 0.88 \ln(12,000) - 0.68$
 $\ln(T) = 7.59$
 $T = 1978 \text{ Trips}$
78% Entering, 22% Exiting
1543 Entering, 435 Exiting

PM : $\ln(T) = 0.73 \ln(X) + 0.84$
 $\ln(T) = 0.73 \ln(12,000) + 0.84$
 $\ln(T) = 7.70$
 $T = 2208 \text{ Trips}$
32% Entering, 68% Exiting
707 Entering, 1501 Exiting

Trip Generation

12,000 Students projected by 2025

<u>ITE</u>	<u>CBU</u>	<u>% Diff</u>
AM: T = 1,978 Trips	T = 1080 Trips	-45%
PM: T = 2,208 Trips	T = 1320 Trips	-40%
ADT: T = 22,248 Trips	T = 17,280 trips	-22%

Counts

Machine - Wed 3/2/16
TMC - THUR 3/3/16

4/21/16

15620-DG

1 OF 1

JTC

Trip Generation Rate Comparison

Previous

Removal (2,079)

ADT: Rate = $\frac{8230 \text{ trips}}{4,479 \text{ students}}$

= 1.84 trips/student

Rate = $\frac{11,989 \text{ trips}}{8323 \text{ students}}$

= 1.44 trips/student

online
students Rate = $\frac{11,989 \text{ trips}}{6244 \text{ students}}$

= 1.92 trips/student

AM: Rate = $\frac{546 \text{ trips}}{4,479 \text{ students}}$

= 0.13 trips/student

Rate = $\frac{731 \text{ trips}}{8323 \text{ students}}$

= 0.09 trips/student

Rate = $\frac{731 \text{ trips}}{6244 \text{ students}}$

= 0.12 trips/student

PM: Rate = $\frac{679 \text{ trips}}{4479 \text{ students}}$

= 0.15 trips/student

Rate = $\frac{910 \text{ trips}}{8323 \text{ students}}$

= 0.11 trips/student

Rate = $\frac{910 \text{ trips}}{6244 \text{ students}}$

= 0.15 trips/student

* Previous study did not include online students as part of trip generation calculation.

* Online student used in current study to be able to compare to ultimate student count of 12,000 students, which includes online students.

* Previous study counts taken during Fall Semester. Current study counts taken during Spring semester.

* On-campus housing only has a minor impact on trip generation rate as the increase from 2011 is only 276 students.

4/21/16

15620-DG

1 OF 1

JC

Previous

Trip Generation Rate Amendment

Removal (2,079)

ADT: Rate = $\frac{8230 \text{ trips}}{4,479 \text{ Students}}$

= $\underline{1.84 \text{ trips/student}}$

Rate = $\frac{11,989 \text{ trips}}{8323 \text{ Students}}$

= $\underline{1.44 \text{ trips/student}}$

online
students Rate = $\frac{11,989 \text{ trips}}{6244 \text{ Students}}$

= $\underline{1.92 \text{ trips/student}}$

AM: Rate = $\frac{516 \text{ trips}}{4,479 \text{ Students}}$

= $\underline{0.13 \text{ trips/student}}$

Rate = $\frac{731 \text{ trips}}{8323 \text{ Students}}$

= $\underline{0.09 \text{ trips/student}}$

Rate = $\frac{731 \text{ trips}}{6244 \text{ Students}}$

= $\underline{0.12 \text{ trips/student}}$

PM: Rate = $\frac{679 \text{ trips}}{4479 \text{ Students}}$

= $\underline{0.15 \text{ trips/student}}$

Rate = $\frac{910 \text{ trips}}{8323 \text{ Students}}$

= $\underline{0.11 \text{ trips/student}}$

Rate = $\frac{910 \text{ trips}}{6244 \text{ Students}}$

= $\underline{0.15 \text{ trips/student}}$

* Previous study did not include online students as part of trip generation calculation.

* Online student used in current study to be able to compare to ultimate student count of 12,000 students, which includes online students.

* Previous study counts taken during Fall semester. Current study counts taken during Spring semester.

* On-campus housing only has a minor impact on trip generation rate as the increase from 2011 is only 276 students.

APPENDIX B

Traffic Volume Counts

Project #: 16-1080-001

TMC SUMMARY OF Adams St. & Garfield St.

		APPROACH LANES			
		0	2	1	
Adams St.	TOTAL	34	1341	62	
	PM	17	536	18	
	MD				
	AM	17	805	44	

Garfield St.

Garfield St.

N

APPROACH LANES	TOTAL				APPROACH LANES
	0	1	2	3	
0	44	19		25	0
1	67	57		10	1
0	168	131		37	0

CONTROL
Signalized

AM	MD	PM	TOTAL	APPROACH LANES
59		17	76	
36		4	40	
31		24	55	

TOTAL	AM	MD	PM	APPROACH LANES
40				
703				
32				
87				
750				
22				
127				
1453				
54				

Adams St.

LOCATION #: **16-1080-001**

TURNING MOVEMENT COUNT

Adams St. & Garfield St.
(Intersection Name)

THURSDAY 03/03/2016
Day Date

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 445 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/03/2016**

LOCATION: **Riverside**

E-W STREET: **Garfield St.**

DAY: **THURSDAY**

PROJECT# **16-1080-001**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	116	1	3	121	2	3	1	7	4	4	5	270
7:15 AM	9	146	2	6	137	1	1	0	12	9	0	2	325
7:30 AM	18	209	5	19	234	1	2	14	21	6	7	15	551
7:45 AM	24	230	3	21	227	6	4	22	35	8	8	17	605
8:00 AM	34	185	8	1	190	7	5	14	38	7	19	22	530
8:15 AM	11	126	6	3	154	3	8	7	37	10	2	5	372
8:30 AM	4	119	4	3	141	1	2	1	7	4	2	4	292
8:45 AM	3	105	2	0	125	2	2	1	5	9	1	6	261
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	106	1236	31	56	1329	23	27	60	162	57	43	76	3206
Approach %	7.72	90.02	2.26	3.98	94.39	1.63	10.84	24.10	65.06	32.39	24.43	43.18	
App/Depart	1373	/	1339	1408	/	1548	249	/	147	176	/	172	

AM Peak Hr Begins at: 730 AM

PEAK

Volumes	87	750	22	44	805	17	19	57	131	31	36	59	2058
Approach %	10.13	87.31	2.56	5.08	92.96	1.96	9.18	27.54	63.29	24.60	28.57	46.83	

PEAK HR.

FACTOR:	0.836	0.852	0.848	0.656	0.850
---------	-------	-------	-------	-------	-------

CONTROL: **Signalized**

COMMENT 1:

GPS: **33.936038, -117.426901**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.** DATE: **03/03/2016** LOCATION: **Riverside**
E-W STREET: **Garfield St.** DAY: **THURSDAY** PROJECT# **16-1080-001**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	6	157	4	4	147	2	7	1	17	6	1	2	354
4:15 PM	5	171	9	1	129	7	5	3	20	2	1	4	357
4:30 PM	7	151	7	1	139	3	1	5	21	7	2	4	348
4:45 PM	8	167	7	6	130	2	6	6	10	8	1	2	353
5:00 PM	8	178	8	6	145	5	8	2	8	5	1	5	379
5:15 PM	11	189	9	3	136	5	4	0	11	8	1	4	381
5:30 PM	13	169	8	3	125	5	7	2	8	3	1	6	350
5:45 PM	7	158	11	4	121	7	3	4	12	6	2	6	341
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	65	1340	63	28	1072	36	41	23	107	45	10	33	2863
Approach %	4.43	91.28	4.29	2.46	94.37	3.17	23.98	13.45	62.57	51.14	11.36	37.50	
App/Depart	1468	/	1414	1136	/	1224	171	/	114	88	/	111	

PM Peak Hr Begins at: 445 PM

PEAK

Volumes	40	703	32	18	536	17	25	10	37	24	4	17	1463
Approach %	5.16	90.71	4.13	3.15	93.87	2.98	34.72	13.89	51.39	53.33	8.89	37.78	

PEAK HR.

FACTOR:	0.927	0.915	0.818	0.865	0.960
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CONTROL: **Signalized**

COMMENT 1: **0**

GPS: **33.936038, -117.426901**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Adams St.
E-W STREET: Garfield St.

Date: 03/03/2016
Day: THURSDAY

City: Riverside
Project #: 16-1080-001

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	1	0	0
7:15 AM	0	9	0	0
7:30 AM	0	9	1	0
7:45 AM	0	8	2	0
8:00 AM	0	7	0	1
8:15 AM	0	3	3	1
8:30 AM	0	0	0	0
8:45 AM	0	1	1	0
TOTAL	0	38	7	2

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	1	0	0
7:30 AM	0	0	0	0
7:45 AM	0	1	0	0
8:00 AM	0	0	1	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	2	1	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	1	0
4:15 PM	0	0	0	0
4:30 PM	0	3	3	0
4:45 PM	0	1	0	1
5:00 PM	0	0	2	0
5:15 PM	0	0	0	0
5:30 PM	0	1	0	0
5:45 PM	0	0	0	0
TOTAL	0	5	6	1

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	1	0	1
4:30 PM	0	1	1	1
4:45 PM	2	0	0	0
5:00 PM	0	1	0	2
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	2	3	1	4

North Leg

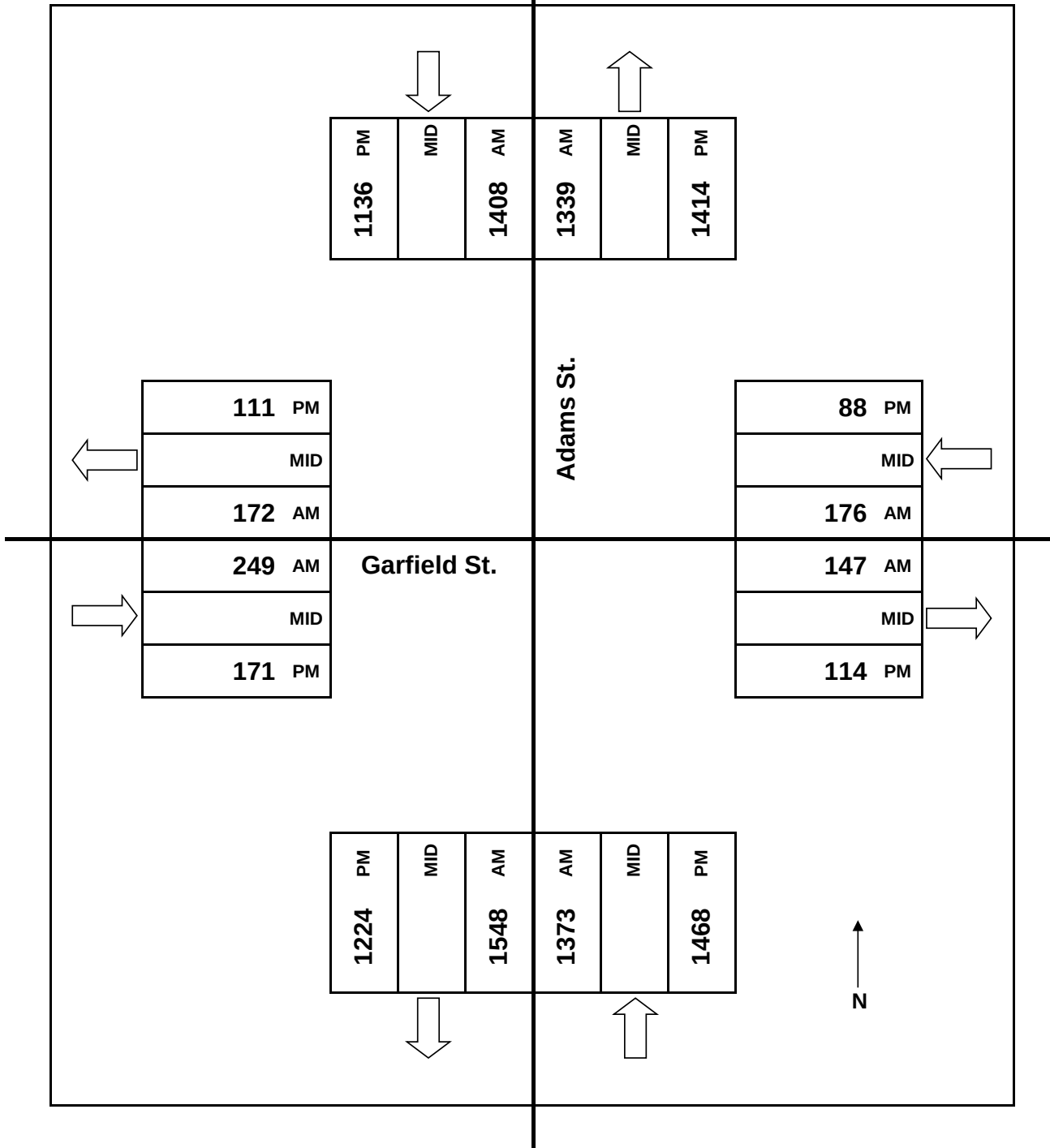
West Leg

East Leg

South Leg

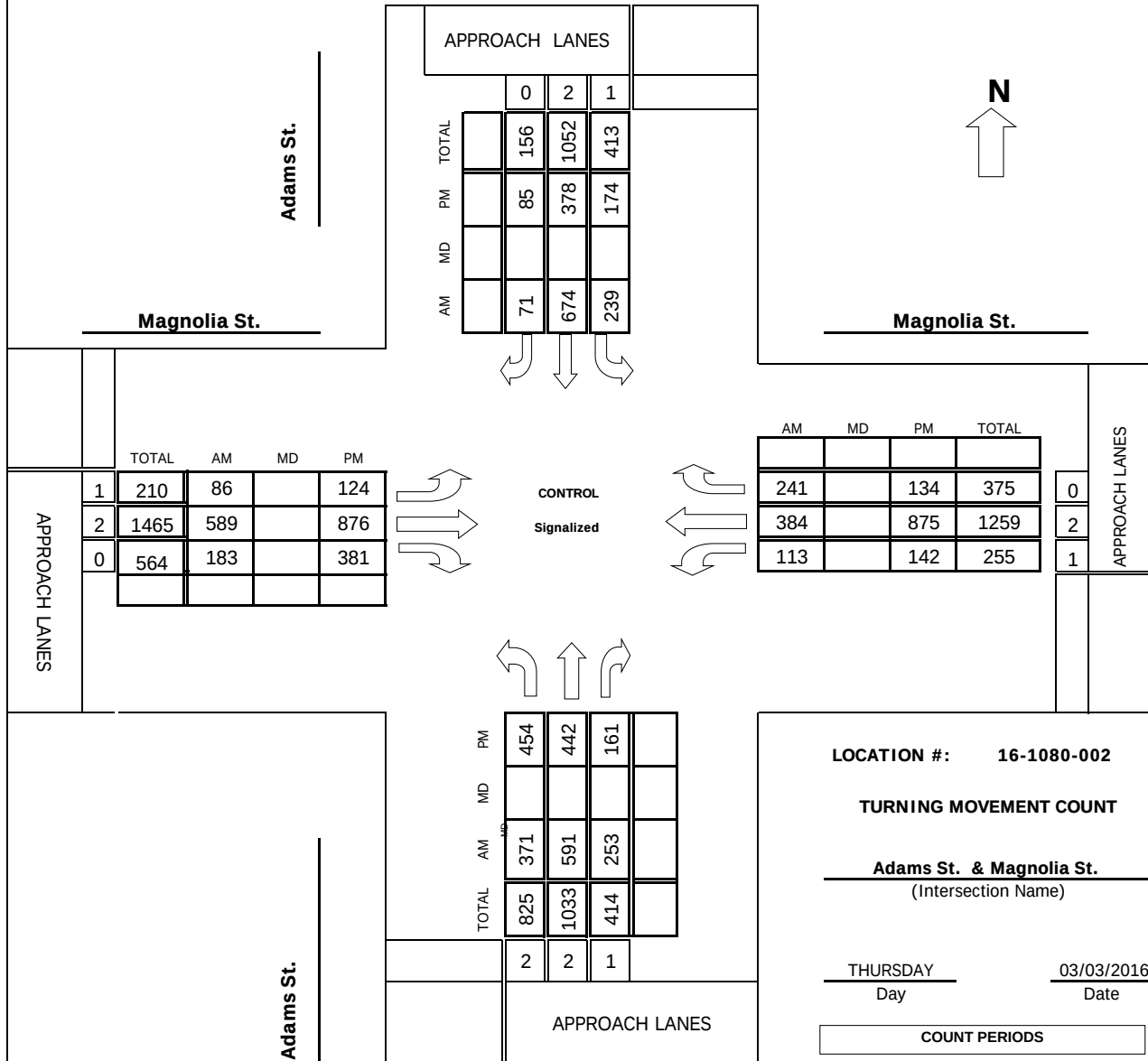
JOB# 16-1080-001
VALIDATED: _____

DATE: 03/03/2016
DAY: THURSDAY



Project #: 16-1080-002

TMC SUMMARY OF Adams St. & Magnolia St.



AM PEAK HOUR 730 AM
NOON PEAK HOUR
PM PEAK HOUR 500 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/03/2016**

LOCATION: **Riverside**

E-W STREET: **Magnolia St.**

DAY: **THURSDAY**

PROJECT# **16-1080-002**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	50	83	51	22	114	7	5	90	34	19	59	10	544
7:15 AM	68	112	54	21	137	9	8	156	44	23	66	21	719
7:30 AM	73	150	59	78	146	16	14	176	53	31	103	39	938
7:45 AM	79	173	62	66	196	22	41	159	41	44	125	111	1119
8:00 AM	115	141	62	52	193	16	16	123	54	23	69	56	920
8:15 AM	104	127	70	43	139	17	15	131	35	15	87	35	818
8:30 AM	124	125	55	16	126	37	7	128	56	25	99	23	821
8:45 AM	99	123	43	13	95	32	19	130	29	23	90	23	719
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	712	1034	456	311	1146	156	125	1093	346	203	698	318	6598
Approach %	32.33	46.96	20.71	19.28	71.05	9.67	7.99	69.88	22.12	16.65	57.26	26.09	
App/Depart	2202	/	1477	1613	/	1695	1564	/	1860	1219	/	1566	

AM Peak Hr Begins at: 730 AM

PEAK

Volumes	371	591	253	239	674	71	86	589	183	113	384	241	3795
Approach %	30.53	48.64	20.82	24.29	68.50	7.22	10.02	68.65	21.33	15.31	52.03	32.66	

PEAK HR.

FACTOR:	0.955	0.866	0.883	0.659	0.848
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CONTROL: **Signalized**

COMMENT 1:

GPS: **33.932818, -117.424284**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: [Adams St.](#)

DATE: [03/03/2016](#)

LOCATION: [Riverside](#)

E-W STREET: [Magnolia St.](#)

DAY: [THURSDAY](#)

PROJECT# [16-1080-002](#)

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2	1	1	2	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	101	89	76	30	83	26	38	143	108	27	151	47	919
4:15 PM	93	120	52	41	82	19	25	169	92	34	169	28	924
4:30 PM	91	139	42	29	104	21	23	166	80	31	214	26	966
4:45 PM	63	170	51	26	100	19	22	159	106	42	199	31	988
5:00 PM	96	134	46	15	109	34	30	178	102	26	228	42	1040
5:15 PM	114	105	42	39	106	20	35	249	94	34	239	42	1119
5:30 PM	113	105	44	63	87	14	24	238	92	40	225	28	1073
5:45 PM	131	98	29	57	76	17	35	211	93	42	183	22	994
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	802	960	382	300	747	170	232	1513	767	276	1608	266	8023
Approach %	37.41	44.78	17.82	24.65	61.38	13.97	9.24	60.23	30.53	12.84	74.79	12.37	
App/Depart	2144	/	1458	1217	/	1790	2512	/	2195	2150	/	2580	

PM Peak Hr Begins at: 500 PM

PEAK

Volumes	454	442	161	174	378	85	124	876	381	142	875	134	4226
Approach %	42.95	41.82	15.23	27.32	59.34	13.34	8.98	63.43	27.59	12.34	76.02	11.64	

PEAK HR.

FACTOR:	0.957	0.965	0.913	0.913	0.944
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CONTROL: [Signalized](#)

COMMENT 1: [0](#)

GPS: [33.932818, -117.424284](#)

Pedestrian & Bicycle Study

N-S STREET: Adams St.
E-W STREET: Magnolia St.

Date: 03/03/2016
Day: THURSDAY

City: Riverside
Project #: 16-1080-002

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	1	7	2	0
7:15 AM	2	4	4	1
7:30 AM	1	9	2	0
7:45 AM	6	10	5	5
8:00 AM	12	13	7	8
8:15 AM	2	2	1	5
8:30 AM	1	56	4	9
8:45 AM	4	19	6	9
TOTAL	29	120	31	37

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	1	2	0	0
7:45 AM	2	0	0	4
8:00 AM	0	0	0	0
8:15 AM	2	2	0	0
8:30 AM	0	7	0	0
8:45 AM	0	2	0	0
TOTAL	5	13	0	4

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	15	26	15	13
4:15 PM	3	6	5	5
4:30 PM	13	9	5	10
4:45 PM	7	11	11	8
5:00 PM	2	5	1	6
5:15 PM	0	4	2	0
5:30 PM	0	0	0	1
5:45 PM	0	0	0	0
TOTAL	40	61	39	43

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	1	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	1	2	0	0
5:00 PM	3	2	2	0
5:15 PM	0	5	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	5	9	2	0

North Leg

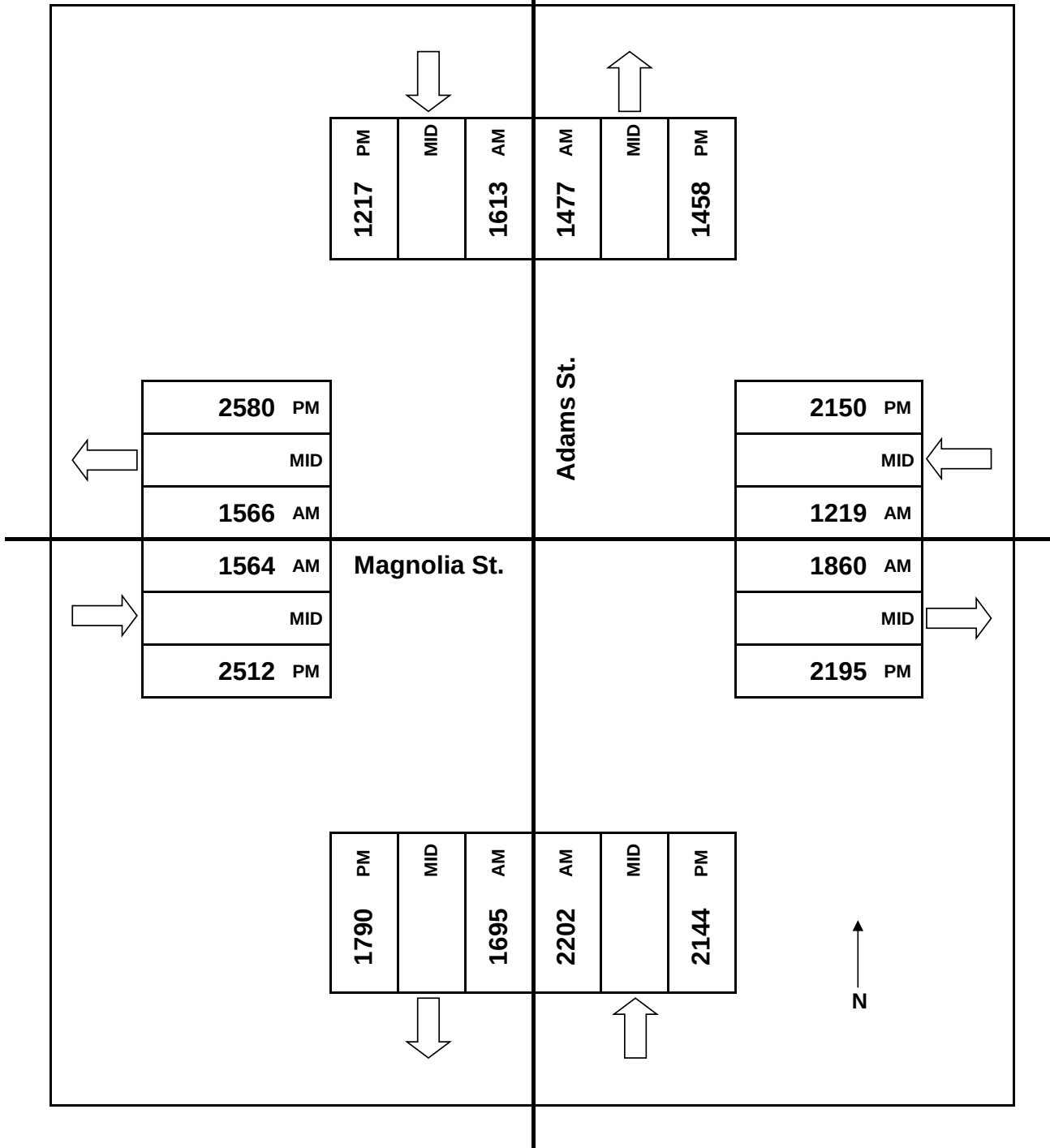
West Leg

East Leg

South Leg

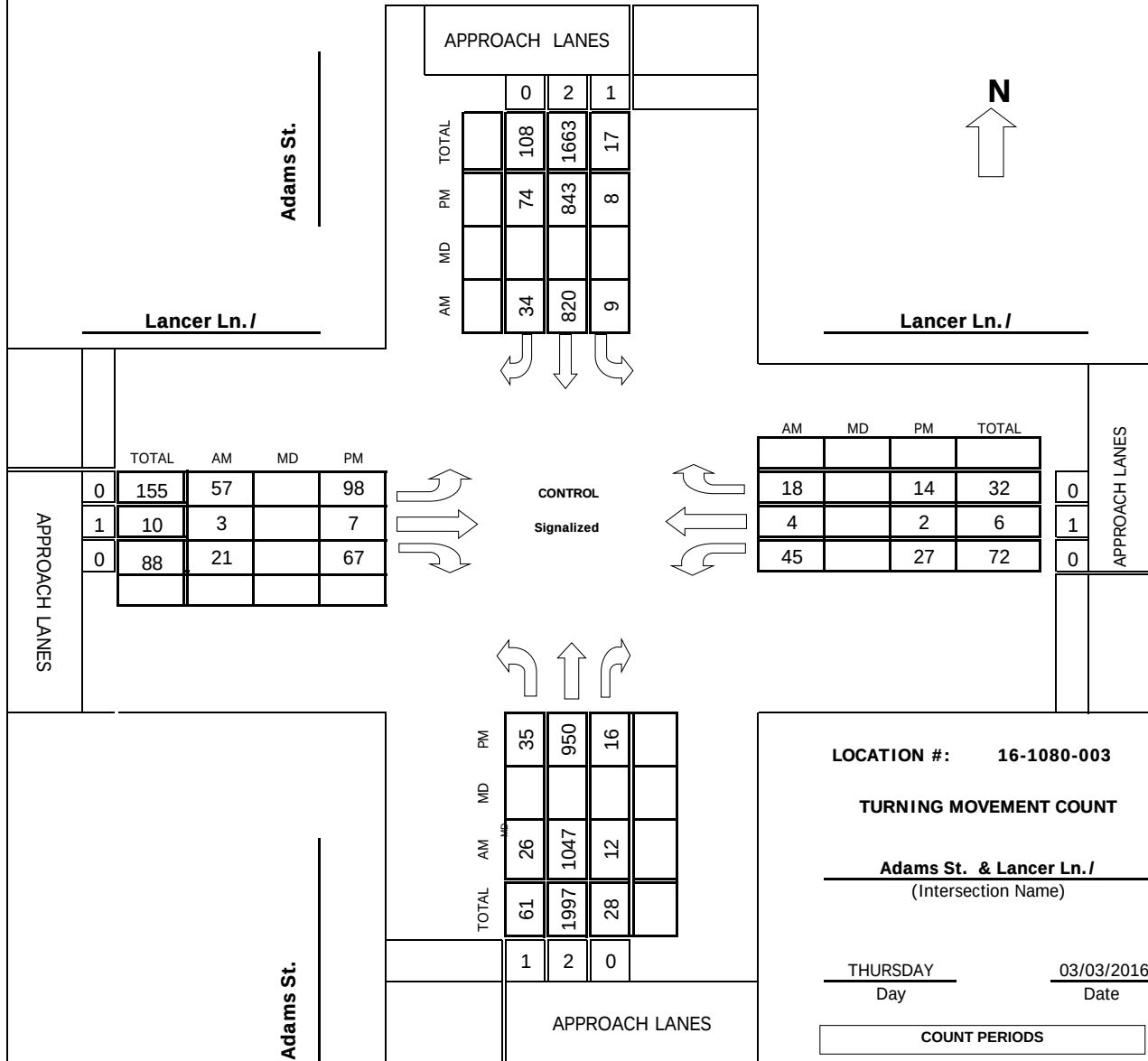
JOB# 16-1080-002
VALIDATED: _____

DATE: 03/03/2016
DAY: THURSDAY



Project #: 16-1080-003

TMC SUMMARY OF Adams St. & Lancer Ln./



AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.** DATE: **03/03/2016** LOCATION: **Riverside**
E-W STREET: **Lancer Ln./ Briarwood Dr.** DAY: **THURSDAY** PROJECT# **16-1080-003**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	205	3	0	183	2	7	1	3	7	0	0	413
7:15 AM	3	211	1	2	169	5	13	1	5	2	2	3	417
7:30 AM	6	252	3	3	209	8	18	1	2	14	1	2	519
7:45 AM	5	296	7	2	224	11	17	1	10	10	2	6	591
8:00 AM	8	246	2	2	201	5	9	0	6	12	1	4	496
8:15 AM	7	253	0	2	186	10	13	1	3	9	0	6	490
8:30 AM	5	268	3	1	142	9	6	1	5	16	0	6	462
8:45 AM	7	254	6	1	157	13	4	3	2	9	0	8	464
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	43	1985	25	13	1471	63	87	9	36	79	6	35	3852
Approach %	2.09	96.69	1.22	0.84	95.09	4.07	65.91	6.82	27.27	65.83	5.00	29.17	
App/Depart	2053	/	2107	1547	/	1586	132	/	47	120	/	112	

AM Peak Hr Begins at: 730 AM

PEAK

Volumes	26	1047	12	9	820	34	57	3	21	45	4	18	2096
Approach %	2.40	96.50	1.11	1.04	95.02	3.94	70.37	3.70	25.93	67.16	5.97	26.87	

PEAK HR.

FACTOR:	0.881	0.910	0.723	0.931	0.887
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CONTROL:

COMMENT 1:

GPS:

Signalized

33.929275, -117.41396



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: [Adams St.](#)

DATE: [03/03/2016](#)

LOCATION: [Riverside](#)

E-W STREET: [Lancer Ln./](#)

DAY: [THURSDAY](#)

PROJECT# [16-1080-003](#)

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	5	229	5	3	190	13	23	1	29	5	2	4	509
4:15 PM	2	233	3	3	183	13	19	2	7	7	1	3	476
4:30 PM	9	240	5	0	193	20	17	4	7	9	0	5	509
4:45 PM	4	251	3	5	215	21	25	0	18	5	2	7	556
5:00 PM	10	231	3	1	214	19	34	1	25	6	0	1	545
5:15 PM	12	228	5	2	221	14	22	2	17	7	0	1	531
5:30 PM	11	227	8	2	180	10	20	4	14	8	2	5	491
5:45 PM	6	218	7	9	189	9	25	4	7	8	1	5	488
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	59	1857	39	25	1585	119	185	18	124	55	8	31	4105
Approach %	3.02	94.99	1.99	1.45	91.67	6.88	56.57	5.50	37.92	58.51	8.51	32.98	
App/Depart	1955	/	2073	1729	/	1764	327	/	82	94	/	186	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	35	950	16	8	843	74	98	7	67	27	2	14	2141
Approach %	3.50	94.91	1.60	0.86	91.14	8.00	56.98	4.07	38.95	62.79	4.65	32.56	

PEAK HR.

FACTOR:	0.970	0.960	0.717	0.768	0.963
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CONTROL: [Signalized](#)

COMMENT 1: [0](#)

GPS: [33.929275, -117.41396](#)



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Adams St.
E-W STREET: Lancer Ln./

Date: 03/03/2016
Day: THURSDAY

City: Riverside
Project #: 16-1080-003

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

North Leg

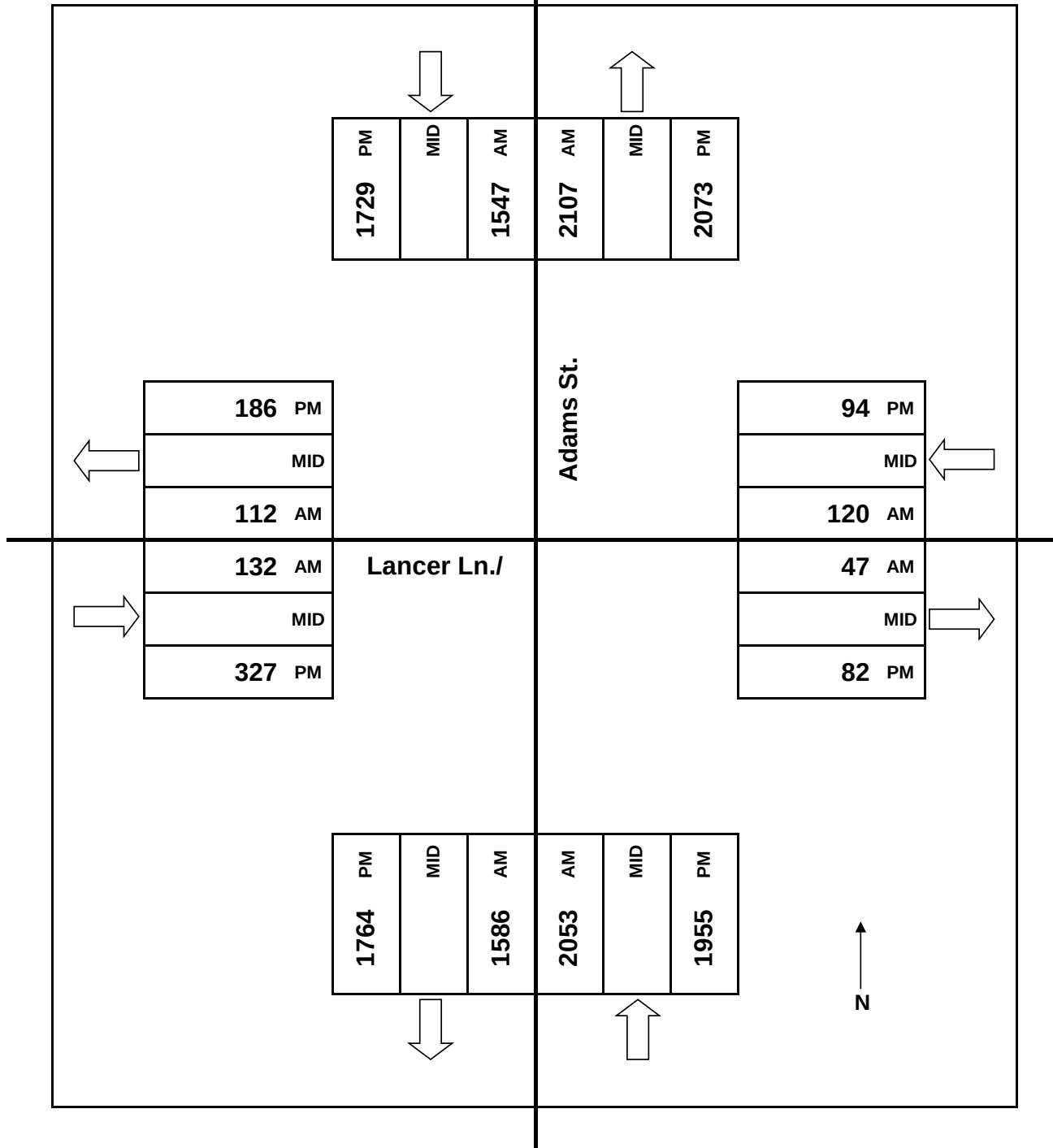
West Leg

East Leg

South Leg

JOB# 16-1080-003
VALIDATED: _____

DATE: 03/03/2016
DAY: THURSDAY



Project #: 16-1080-004

TMC SUMMARY OF Adams St. & Plaza Drwy.

		APPROACH LANES			
		TOTAL	AM	MD	PM
Adams St.		0	2	0	
		41	1816	0	
		27	928	0	
		14	888	0	

Plaza Drwy.

Adams St.

Plaza Drwy.

N

	APPROACH LANES			
	TOTAL	AM	MD	PM
0	7	4		3
1	0	0		0
0	109	20		89

CONTROL
1 Way Stop
EB

APPROACH LANES			
TOTAL	AM	MD	PM
90	999	0	
158	1074	0	
248	2073	0	

Adams St.

Plaza Drwy.

LOCATION #: **16-1080-004**

TURNING MOVEMENT COUNT

Adams St. & Plaza Drwy.
(Intersection Name)

THURSDAY 03/3/2016
Day Date

COUNT PERIODS

AM	700AM	-	900AM
NOON	-	-	
PM	400PM	-	600PM

AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/3/2016**

LOCATION: **Riverside**

E-W STREET: **Plaza Drwy.**

DAY: **THURSDAY**

PROJECT# **16-1080-004**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 0	WR 0	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	26	208	0	0	185	5	0	0	7	0	0	0	431
7:15 AM	16	214	0	0	185	2	1	0	6	0	0	0	424
7:30 AM	29	256	0	0	219	2	1	0	4	0	0	0	511
7:45 AM	36	308	0	0	257	3	0	0	1	0	0	0	605
8:00 AM	45	250	0	0	214	4	1	0	7	0	0	0	521
8:15 AM	48	260	0	0	198	5	2	0	8	0	0	0	521
8:30 AM	54	267	0	0	157	1	1	0	14	0	0	0	494
8:45 AM	48	262	0	0	167	1	2	0	14	0	0	0	494
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	302	2025	0	0	1582	23	8	0	61	0	0	0	4001
Approach %	12.98	87.02	0.00	0.00	98.57	1.43	11.59	0.00	88.41	####	####	####	
App/Depart	2327	/	2033	1605	/	1643	69	/	0	0	/	325	

AM Peak Hr Begins at: 730 AM

PEAK

Volumes	158	1074	0	0	888	14	4	0	20	0	0	0	2158
Approach %	12.82	87.18	0.00	0.00	98.45	1.55	16.67	0.00	83.33	####	####	####	

PEAK HR.

FACTOR:	0.895	0.867	0.600	0.000	0.892
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CONTROL: **1 Way Stop (EB)**

COMMENT 1:

GPS: **33.928269, -117.420575**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/3/2016**

LOCATION: **Riverside**

E-W STREET: **Plaza Drwy.**

DAY: **THURSDAY**

PROJECT# **16-1080-004**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 0	WR 0	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	12	246	0	0	229	1	1	0	15	0	0	0	504
4:15 PM	25	229	0	0	189	3	1	0	15	0	0	0	462
4:30 PM	19	253	0	0	208	8	2	0	14	0	0	0	504
4:45 PM	22	258	0	0	226	5	0	0	20	0	0	0	531
5:00 PM	32	238	0	0	244	6	1	0	34	0	0	0	555
5:15 PM	17	250	0	0	250	8	0	0	21	0	0	0	546
5:30 PM	20	245	0	0	193	2	0	0	15	0	0	0	475
5:45 PM	35	229	0	0	211	4	1	0	13	0	0	0	493
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	182	1948	0	0	1750	37	6	0	147	0	0	0	4070
Approach %	8.54	91.46	0.00	0.00	97.93	2.07	3.92	0.00	96.08	####	####	####	
App/Depart	2130	/	1954	1787	/	1897	153	/	0	0	/	219	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	90	999	0	0	928	27	3	0	89	0	0	0	2136
Approach %	8.26	91.74	0.00	0.00	97.17	2.83	3.26	0.00	96.74	####	####	####	

PEAK HR.

FACTOR:	0.972	0.925	0.657	0.000	0.962
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CONTROL: **1 Way Stop (EB)**

COMMENT 1: **0**

GPS: **33.928269, -117.420575**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Adams St.
E-W STREET: Plaza Drwy.

Date: 03/3/2016
Day: THURSDAY

City: Riverside
Project #: 16-1080-004

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	4	0	0
7:30 AM	0	0	0	0
7:45 AM	0	4	0	0
8:00 AM	0	0	0	0
8:15 AM	0	1	0	0
8:30 AM	0	1	0	0
8:45 AM	0	4	0	0
TOTAL	0	14	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	1	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	1	0	0
TOTAL	0	2	0	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	3	0	0
4:15 PM	0	0	0	0
4:30 PM	0	2	0	0
4:45 PM	0	3	0	0
5:00 PM	0	2	0	0
5:15 PM	0	1	0	0
5:30 PM	0	2	0	0
5:45 PM	0	6	0	0
TOTAL	0	19	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	1	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	1	0	0
5:45 PM	0	1	0	0
TOTAL	0	3	0	0

North Leg

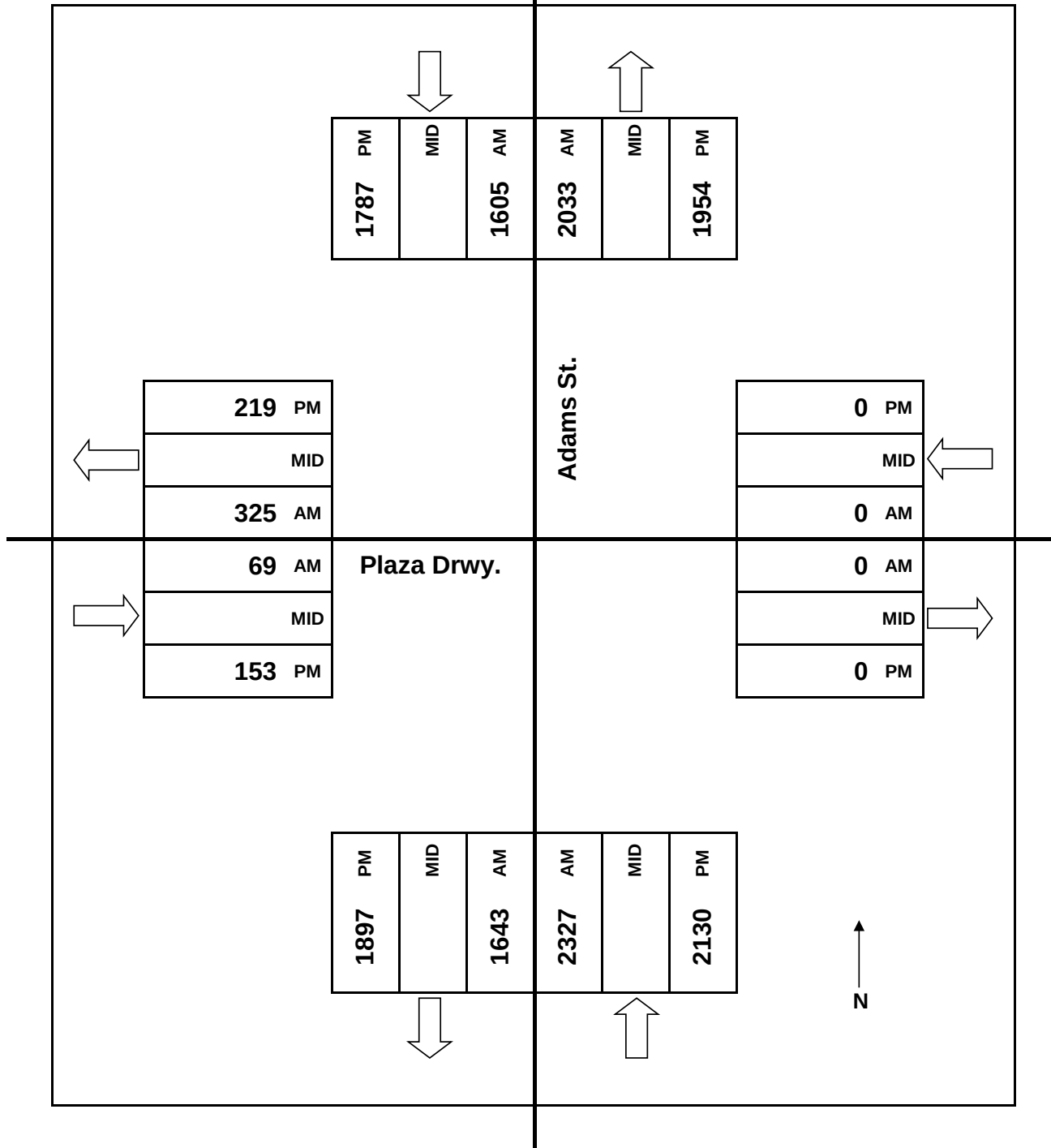
West Leg

East Leg

South Leg

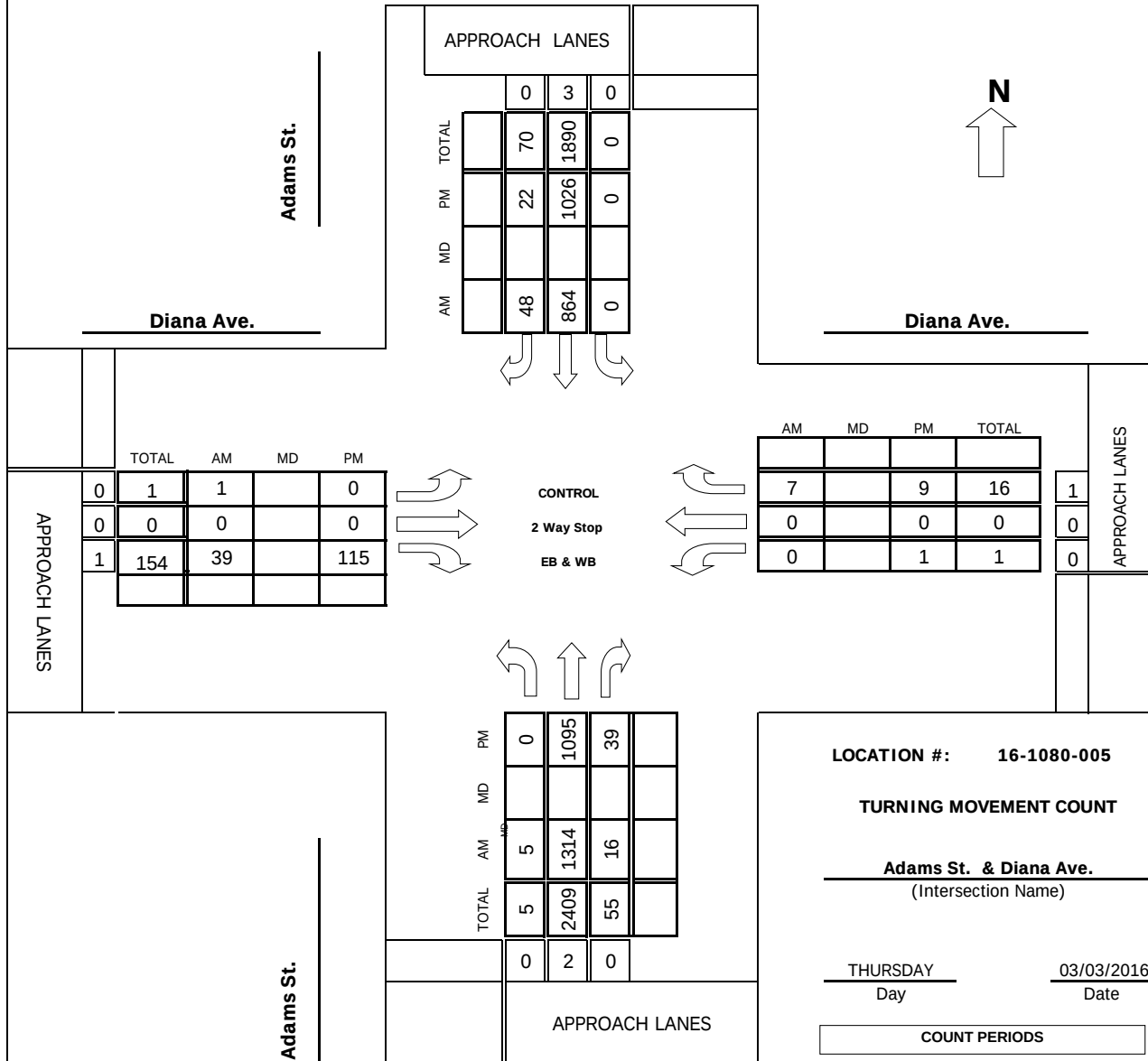
JOB# 16-1080-004
VALIDATED: _____

DATE: 03/3/2016
DAY: THURSDAY



Project #: 16-1080-005

TMC SUMMARY OF Adams St. & Diana Ave.



AM PEAK HOUR 745 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/03/2016**

LOCATION: **Riverside**

E-W STREET: **Diana Ave.**

DAY: **THURSDAY**

PROJECT# **16-1080-005**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	2	0	0	3	0	0	0	1	0	0	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	236	5	0	183	10	0	0	9	0	0	2	447
7:15 AM	0	244	6	0	193	9	0	0	8	0	0	0	460
7:30 AM	0	295	5	0	221	22	0	0	10	0	0	4	557
7:45 AM	0	345	2	0	251	8	0	0	11	0	0	3	620
8:00 AM	0	305	6	0	227	10	0	0	11	0	0	1	560
8:15 AM	2	319	4	0	207	15	0	0	6	0	0	1	554
8:30 AM	3	345	4	0	179	15	1	0	11	0	0	2	560
8:45 AM	1	344	3	0	191	17	0	0	12	0	0	2	570
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	8	2433	35	0	1652	106	1	0	78	0	0	15	4328
Approach %	0.32	98.26	1.41	0.00	93.97	6.03	1.27	0.00	98.73	0.00	0.00	100.00	
App/Depart	2476	/	2449	1758	/	1730	79	/	35	15	/	114	

AM Peak Hr Begins at: 745 AM

PEAK

Volumes	5	1314	16	0	864	48	1	0	39	0	0	7	2294
Approach %	0.37	98.43	1.20	0.00	94.74	5.26	2.50	0.00	97.50	0.00	0.00	100.00	

PEAK HR.

FACTOR:	0.948	0.880	0.833	0.583	0.925
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CONTROL: **2 Way Stop (EB & WB)**

COMMENT 1:

GPS: **33.927911, -117.420332**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: [Adams St.](#)

DATE: [03/03/2016](#)

LOCATION: [Riverside](#)

E-W STREET: [Diana Ave.](#)

DAY: [THURSDAY](#)

PROJECT# [16-1080-005](#)

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	2	0	0	3	0	0	0	1	0	0	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	261	8	0	249	8	0	0	12	0	0	1	539
4:15 PM	0	258	9	0	218	5	0	0	14	0	0	0	504
4:30 PM	0	270	19	0	222	3	0	0	28	0	0	2	544
4:45 PM	0	284	6	0	242	10	0	0	19	0	0	0	561
5:00 PM	0	272	7	0	284	1	0	0	36	0	0	4	604
5:15 PM	0	269	7	0	278	8	0	0	32	1	0	3	598
5:30 PM	1	275	7	0	219	9	0	0	20	0	0	3	534
5:45 PM	0	267	12	0	236	6	0	0	9	0	0	2	532
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	1	2156	75	0	1948	50	0	0	170	1	0	15	4416
Approach %	0.04	96.59	3.36	0.00	97.50	2.50	0.00	0.00	100.00	6.25	0.00	93.75	
App/Depart	2232	/	2171	1998	/	2119	170	/	75	16	/	51	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	0	1095	39	0	1026	22	0	0	115	1	0	9	2307
Approach %	0.00	96.56	3.44	0.00	97.90	2.10	0.00	0.00	100.00	10.00	0.00	90.00	

PEAK HR.

FACTOR:	0.978	0.916	0.799	0.625	0.955
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CONTROL: [2 Way Stop \(EB & WB\)](#)

COMMENT 1: [0](#)

GPS: [33.927911, -117.420332](#)



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



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Pedestrian & Bicycle Study

N-S STREET: Adams St.
E-W STREET: Diana Ave.

Date: 03/03/2016
Day: THURSDAY

City: Riverside
Project #: 16-1080-005

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	5	0	0
7:15 AM	1	0	0	0
7:30 AM	0	0	0	0
7:45 AM	1	1	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	1	0	0	0
8:45 AM	3	0	0	0
TOTAL	6	6	0	0

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	1	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	1	0	0	0
TOTAL	1	1	0	0

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	3	0	0	0
4:15 PM	2	0	0	0
4:30 PM	1	2	0	0
4:45 PM	4	0	0	0
5:00 PM	1	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	11	2	0	0

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	1	0	0
4:15 PM	1	0	0	0
4:30 PM	0	0	0	0
4:45 PM	1	0	0	0
5:00 PM	0	1	0	0
5:15 PM	0	0	1	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	2	2	1	0

North Leg

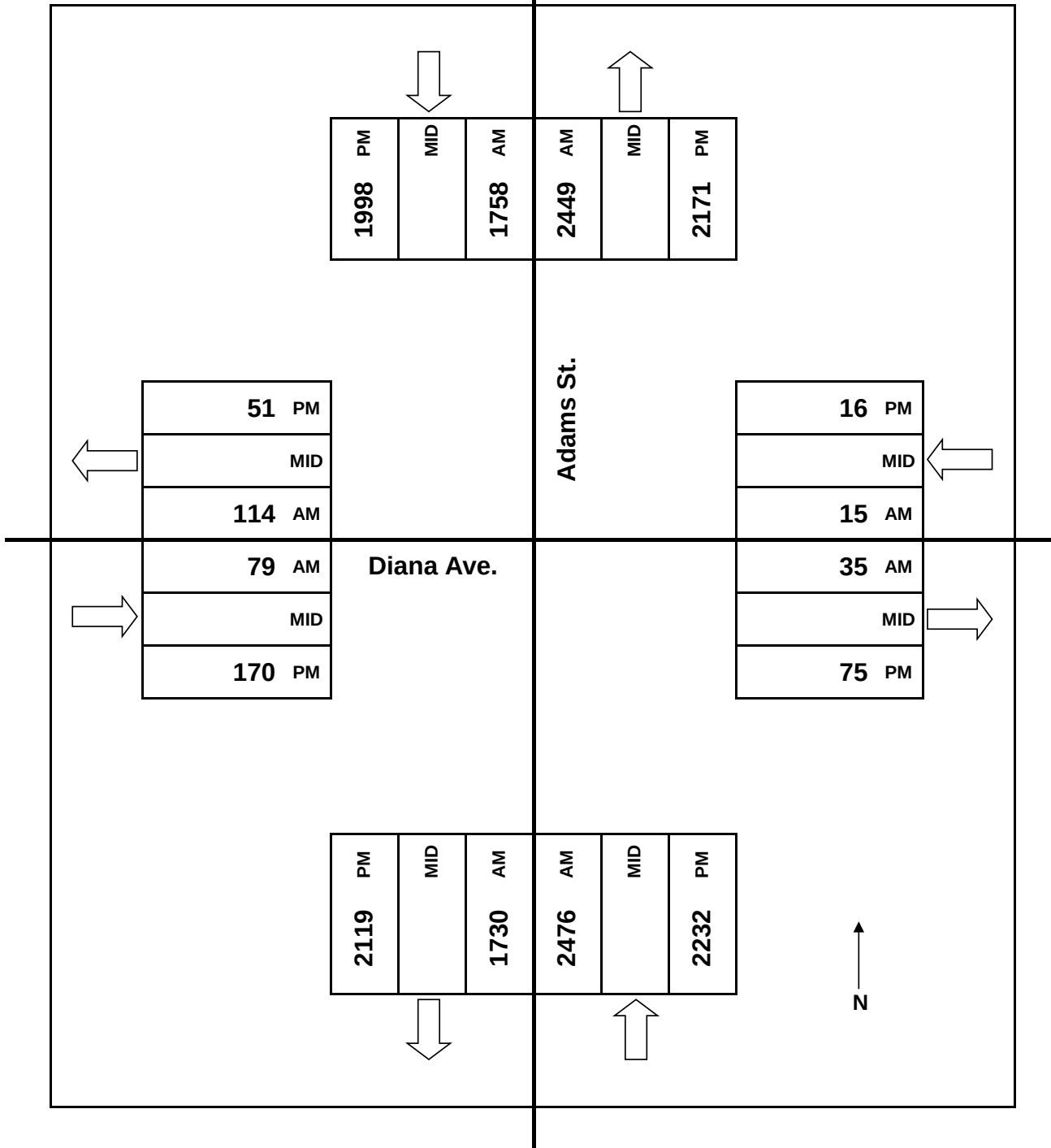
West Leg

East Leg

South Leg

JOB# 16-1080-005
VALIDATED: _____

DATE: 03/03/2016
DAY: THURSDAY



Project #: 16-1080-006

TMC SUMMARY OF Adams St. & SR-91 WB Ramps

Adams St.		APPROACH LANES				SR-91 WB Ramps	
Adams St.		APPROACH LANES				SR-91 WB Ramps	
		TOTAL					
		AM MD PM					
		TOTAL					
		AM MD PM					
Adams St.		APPROACH LANES				SR-91 WB Ramps	
		TOTAL					
		AM MD PM					
		TOTAL					
		AM MD PM					
Adams St.		APPROACH LANES				SR-91 WB Ramps	
		TOTAL					
		AM MD PM					
		TOTAL					
		AM MD PM					

CONTROL
Signalized

LOCATION #: 16-1080-006

TURNING MOVEMENT COUNT

Adams St. & SR-91 WB Ramps
(Intersection Name)

THURSDAY **03/03/2016**
Day Date

COUNT PERIODS		
AM	700AM	- 900AM
NOON	-	-
PM	400PM	- 600PM

AM PEAK HOUR

730 AM

NOON PEAK HOUR

PM PEAK HOUR

430 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/03/2016**

LOCATION: **Riverside**

E-W STREET: **SR-91 WB Ramps**

DAY: **THURSDAY**

PROJECT# **16-1080-006**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	2	0	0	3	0	0	0	0	0.5	0	1.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	30	142	0	0	113	99	0	0	0	49	0	95	528
7:15 AM	40	158	0	0	134	72	0	0	0	56	0	88	548
7:30 AM	47	170	0	0	137	104	0	0	0	74	0	132	664
7:45 AM	55	205	0	0	150	100	0	0	0	92	0	139	741
8:00 AM	49	174	0	0	124	109	0	0	0	78	0	129	663
8:15 AM	48	172	0	0	118	89	0	0	0	78	0	147	652
8:30 AM	46	170	0	0	98	81	0	0	0	56	0	158	609
8:45 AM	50	183	0	0	126	66	0	0	0	70	0	151	646
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	365	1374	0	0	1000	720	0	0	0	553	0	1039	5051
Approach %	20.99	79.01	0.00	0.00	58.14	41.86	####	####	####	34.74	0.00	65.26	
App/Depart	1739	/	2413	1720	/	1553	0	/	0	1592	/	1085	

AM Peak Hr Begins at: 730 AM

PEAK

Volumes	199	721	0	0	529	402	0	0	0	322	0	547	2720
Approach %	21.63	78.37	0.00	0.00	56.82	43.18	####	####	####	37.05	0.00	62.95	

PEAK HR.

FACTOR:	0.885	0.931	0.000	0.940	0.918
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CONTROL: **Signalized**

COMMENT 1:

GPS: **33.927608, -117.420046**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/03/2016**

LOCATION: **Riverside**

E-W STREET: **SR-91 WB Ramps**

DAY: **THURSDAY**

PROJECT# **16-1080-006**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 3	SR 0	EL 0	ET 0	ER 0	WL 0.5	WT 0	WR 1.5	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	93	189	0	0	148	97	0	0	0	41	0	62	630
4:15 PM	71	161	0	0	135	82	0	0	0	51	0	93	593
4:30 PM	81	180	0	0	138	104	0	0	0	66	0	104	673
4:45 PM	80	178	0	0	160	99	0	0	0	55	0	100	672
5:00 PM	84	156	0	0	155	134	0	0	0	40	0	89	658
5:15 PM	82	159	0	0	177	121	0	0	0	44	0	110	693
5:30 PM	63	148	0	0	151	92	0	0	0	58	0	114	626
5:45 PM	72	171	0	0	159	81	0	0	0	59	0	105	647
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	626	1342	0	0	1223	810	0	0	0	414	0	777	5192
Approach %	31.81	68.19	0.00	0.00	60.16	39.84	####	####	####	34.76	0.00	65.24	
App/Depart	1968	/	2119	2033	/	1637	0	/	0	1191	/	1436	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	327	673	0	0	630	458	0	0	0	205	0	403	2696
Approach %	32.70	67.30	0.00	0.00	57.90	42.10	####	####	####	33.72	0.00	66.28	

PEAK HR.

FACTOR:	0.958	0.913	0.000	0.894	0.973
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CONTROL: **Signalized**

COMMENT 1: **0**

GPS: **33.927608, -117.420046**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Adams St.
E-W STREET: SR-91 WB Ramps

Date: 03/03/2016
Day: THURSDAY

City: Riverside
Project #: 16-1080-006

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

North Leg

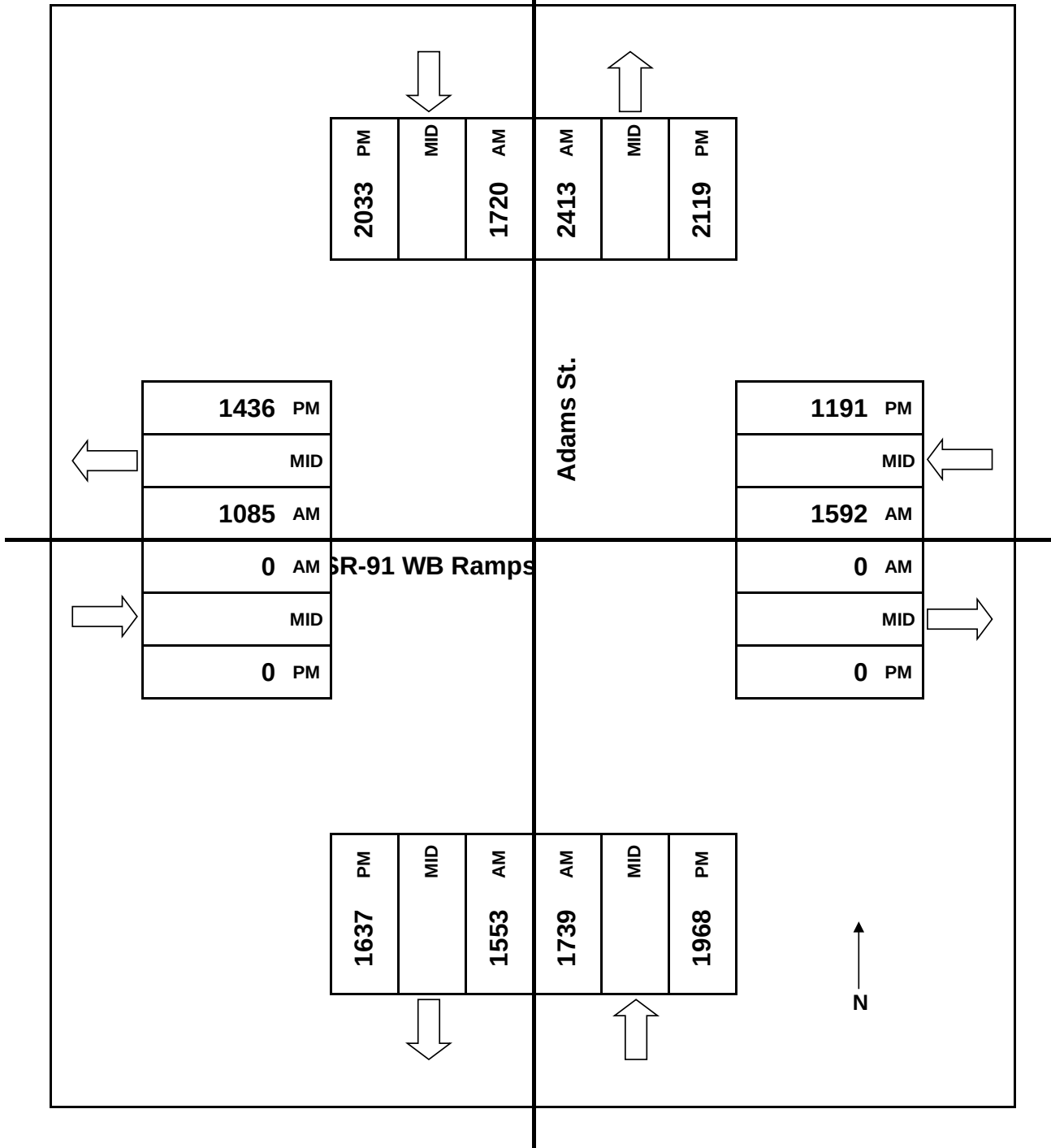
West Leg

East Leg

South Leg

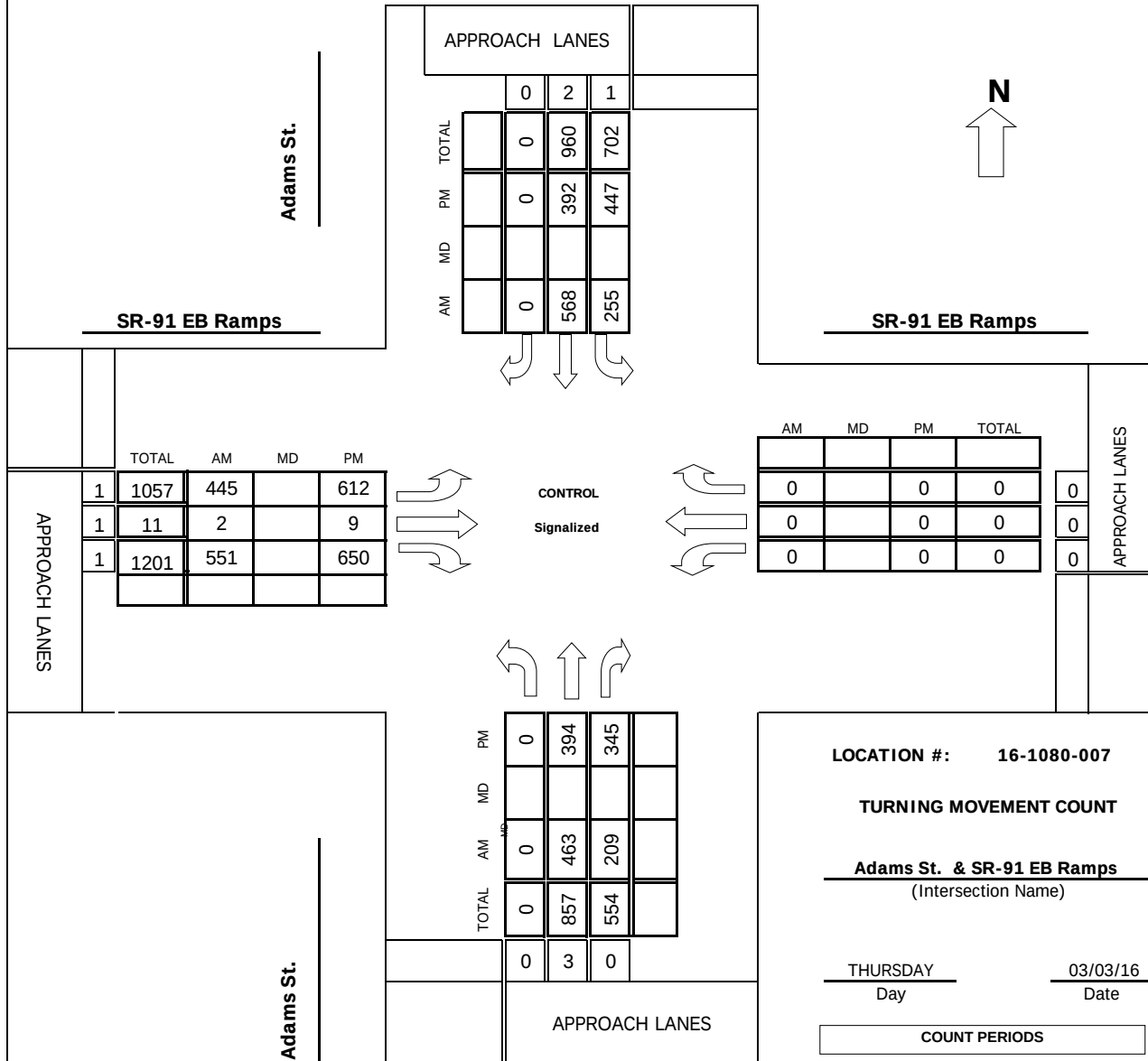
JOB# 16-1080-006
VALIDATED: _____

DATE: 03/03/2016
DAY: THURSDAY



Project #: 16-1080-007

TMC SUMMARY OF Adams St. & SR-91 EB Ramps



AM PEAK HOUR 715 AM

NOON PEAK HOUR

PM PEAK HOUR 445 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/03/16**

LOCATION: **Riverside**

E-W STREET: **SR-91 EB Ramps**

DAY: **THURSDAY**

PROJECT# **16-1080-007**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	3	0	1	2	0	0.5	0.5	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	78	54	104	63	0	91	0	98	0	0	0	488
7:15 AM	0	82	83	75	101	0	125	1	135	0	0	0	602
7:30 AM	0	103	53	66	139	0	107	0	118	0	0	0	586
7:45 AM	0	152	36	58	176	0	96	0	127	0	0	0	645
8:00 AM	0	126	37	56	152	0	117	1	171	0	0	0	660
8:15 AM	0	114	26	61	128	0	108	3	141	0	0	0	581
8:30 AM	0	113	38	50	99	0	110	1	173	0	0	0	584
8:45 AM	0	117	42	49	136	0	106	2	135	0	0	0	587
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	885	369	519	994	0	860	8	1098	0	0	0	4733
Approach %	0.00	70.57	29.43	34.30	65.70	0.00	43.74	0.41	55.85	####	####	####	
App/Depart	1254	/	1745	1513	/	2092	1966	/	896	0	/	0	

AM Peak Hr Begins at: 715 AM

PEAK

Volumes	0	463	209	255	568	0	445	2	551	0	0	0	2493
Approach %	0.00	68.90	31.10	30.98	69.02	0.00	44.59	0.20	55.21	####	####	####	

PEAK HR.

FACTOR:	0.894	0.879	0.863	0.000	0.944
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CONTROL: **Signalized**

COMMENT 1:

GPS: **33.926982, -117.419507**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/03/16**

LOCATION: **Riverside**

E-W STREET: **SR-91 EB Ramps**

DAY: **THURSDAY**

PROJECT# **16-1080-007**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	3	0	1	2	0	0.5	0.5	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	161	87	92	89	0	91	3	88	0	0	0	611
4:15 PM	0	128	64	99	93	0	94	0	79	0	0	0	557
4:30 PM	0	143	78	96	103	0	106	0	107	0	0	0	633
4:45 PM	0	128	57	84	122	0	144	3	139	0	0	0	677
5:00 PM	0	89	110	124	82	0	175	0	168	0	0	0	748
5:15 PM	0	99	114	138	89	0	133	4	165	0	0	0	742
5:30 PM	0	78	64	101	99	0	160	2	178	0	0	0	682
5:45 PM	0	69	40	95	114	0	158	1	132	0	0	0	609
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	895	614	829	791	0	1061	13	1056	0	0	0	5259
Approach %	0.00	59.31	40.69	51.17	48.83	0.00	49.81	0.61	49.58	####	####	####	
App/Depart	1509	/	1956	1620	/	1847	2130	/	1456	0	/	0	

PM Peak Hr Begins at: 445 PM

PEAK

Volumes	0	394	345	447	392	0	612	9	650	0	0	0	2849
Approach %	0.00	53.32	46.68	53.28	46.72	0.00	48.15	0.71	51.14	####	####	####	

PEAK HR.

FACTOR:	0.867	0.924	0.926	0.000	0.952
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CONTROL: **Signalized**

COMMENT 1: **0**

GPS: **33.926982, -117.419507**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Adams St.
E-W STREET: SR-91 EB Ramps

Date: 03/03/16
Day: THURSDAY

City: Riverside
Project #: 16-1080-007

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	1	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	1	0	0

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	1	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	1	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	2	3
4:15 PM	0	0	2	1
4:30 PM	0	0	0	2
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	4	6

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	1	0
TOTAL	0	0	1	0

North Leg

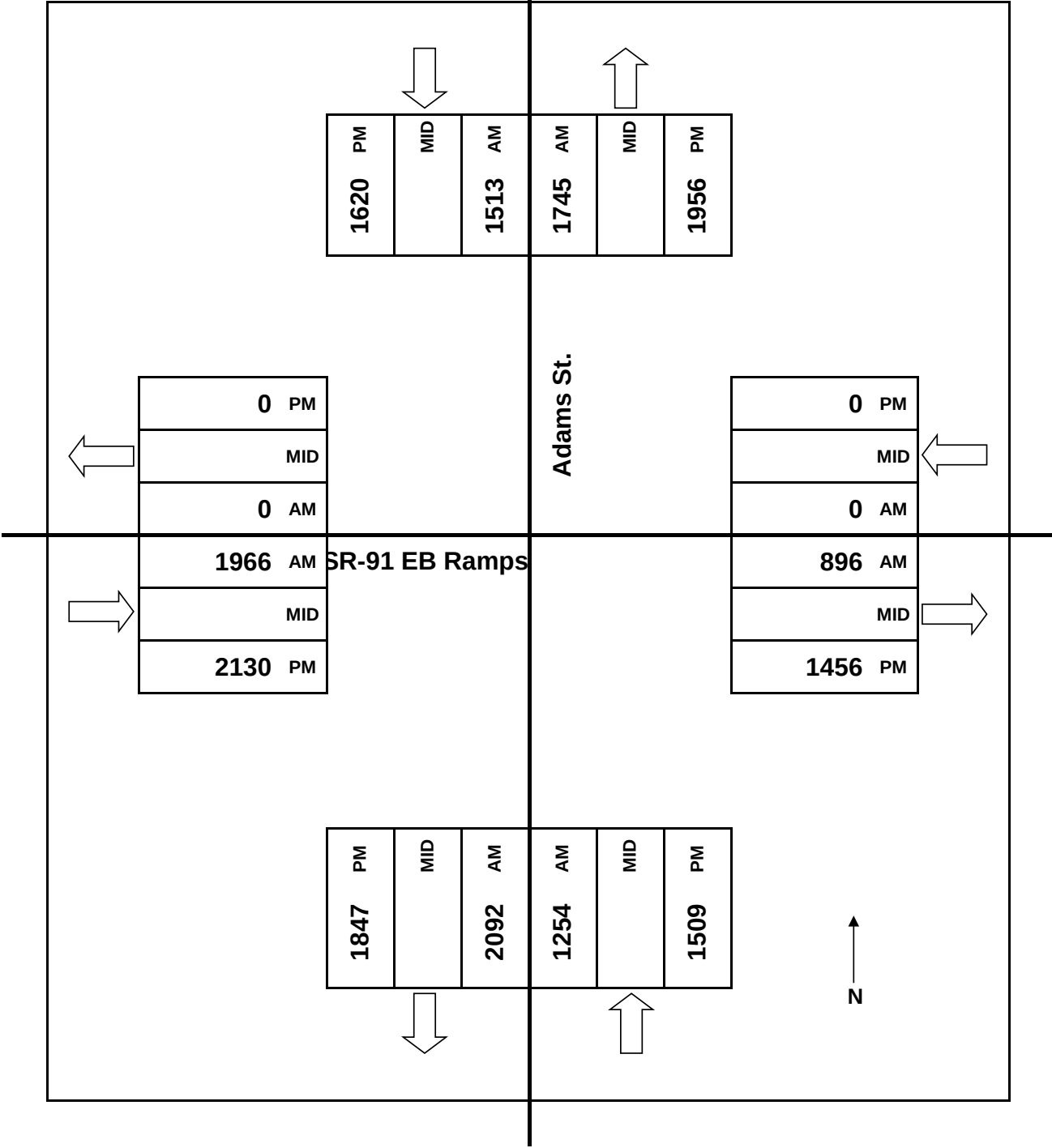
West Leg

East Leg

South Leg

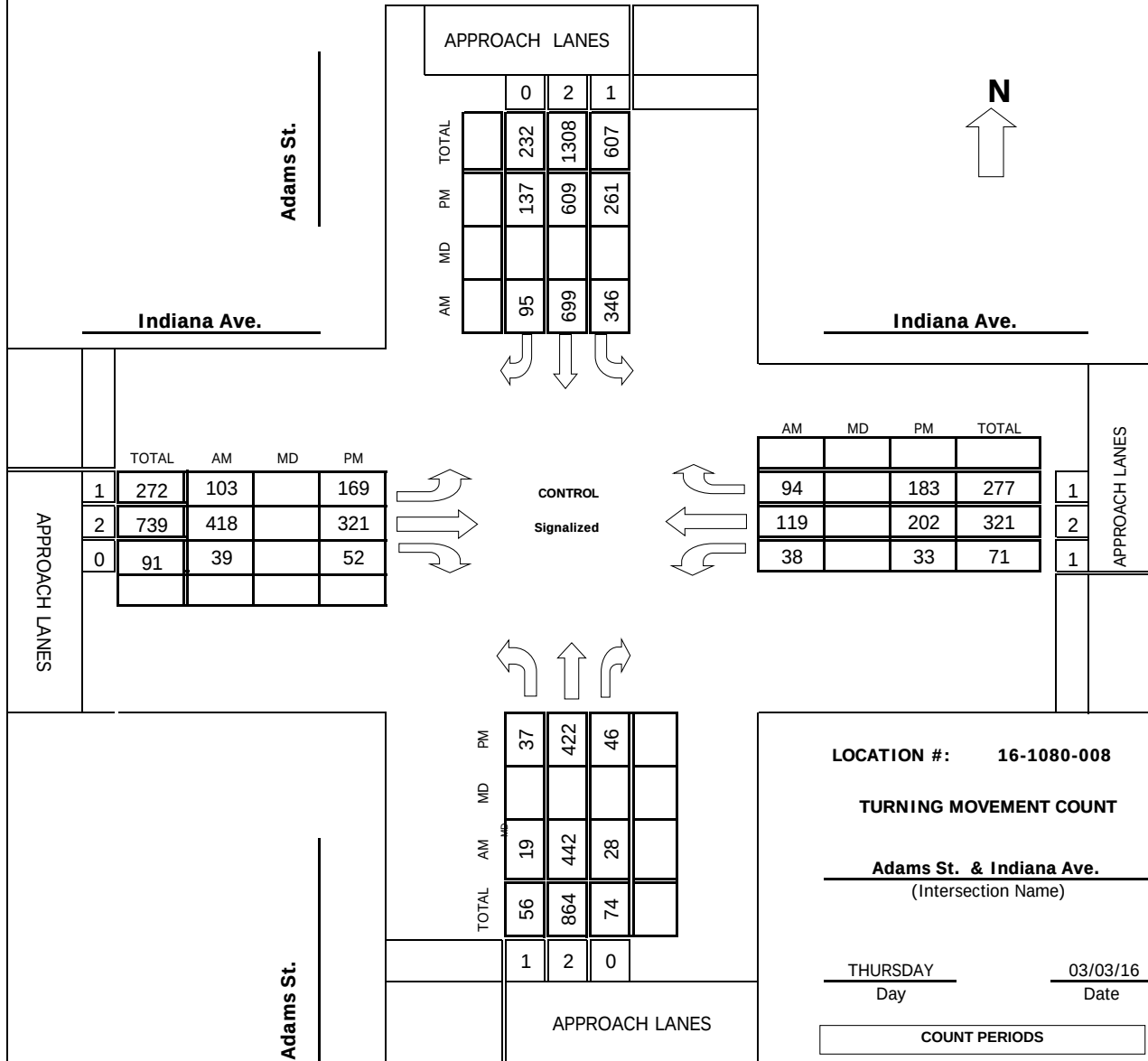
JOB# 16-1080-007
VALIDATED: _____

DATE: 03/03/16
DAY: THURSDAY



Project #: 16-1080-008

TMC SUMMARY OF Adams St. & Indiana Ave.



AM PEAK HOUR 745 AM

NOON PEAK HOUR

PM PEAK HOUR 445 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.** DATE: **03/03/16** LOCATION: **Riverside**
E-W STREET: **Indiana Ave.** DAY: **THURSDAY** PROJECT# **16-1080-008**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1.5	WR 0.5	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	76	1	65	63	17	42	57	5	8	9	11	357
7:15 AM	3	99	12	90	122	32	40	94	5	5	18	20	540
7:30 AM	6	90	11	95	131	24	35	103	16	10	32	17	570
7:45 AM	3	133	7	63	210	24	26	101	9	6	30	20	632
8:00 AM	7	98	10	83	196	24	31	102	13	13	21	32	630
8:15 AM	3	100	4	103	141	21	26	116	8	14	32	23	591
8:30 AM	6	111	7	97	152	26	20	99	9	5	36	19	587
8:45 AM	4	123	11	69	136	21	22	74	13	11	20	15	519
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	35	830	63	665	1151	189	242	746	78	72	198	157	4426
Approach %	3.77	89.44	6.79	33.17	57.41	9.43	22.70	69.98	7.32	16.86	46.37	36.77	
App/Depart	928	/	1229	2005	/	1301	1066	/	1474	427	/	422	

AM Peak Hr Begins at: 745 AM

PEAK

Volumes	19	442	28	346	699	95	103	418	39	38	119	94	2440
Approach %	3.89	90.39	5.73	30.35	61.32	8.33	18.39	74.64	6.96	15.14	47.41	37.45	

PEAK HR.

FACTOR:	0.855	0.941	0.933	0.909	0.965
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CONTROL:

Signalized

COMMENT 1:

GPS:

33.926563, -117.419220



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/03/16**

LOCATION: **Riverside**

E-W STREET: **Indiana Ave.**

DAY: **THURSDAY**

PROJECT# **16-1080-008**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1.5	WR 0.5	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	12	152	17	48	100	30	39	63	22	20	56	35	594
4:15 PM	6	128	10	44	104	33	37	81	17	10	66	37	573
4:30 PM	8	133	12	50	122	32	42	72	11	5	64	54	605
4:45 PM	12	104	7	64	159	37	40	71	17	12	50	35	608
5:00 PM	12	108	15	51	163	28	42	76	15	10	52	50	622
5:15 PM	7	112	9	81	128	35	40	82	10	6	49	51	610
5:30 PM	6	98	15	65	159	37	47	92	10	5	51	47	632
5:45 PM	6	76	5	55	157	26	31	62	7	6	51	18	500
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	69	911	90	458	1092	258	318	599	109	74	439	327	4744
Approach %	6.45	85.14	8.41	25.33	60.40	14.27	30.99	58.38	10.62	8.81	52.26	38.93	
App/Depart	1070	/	1556	1808	/	1275	1026	/	1147	840	/	766	

PM Peak Hr Begins at: 445 PM

PEAK

Volumes	37	422	46	261	609	137	169	321	52	33	202	183	2472
Approach %	7.33	83.56	9.11	25.92	60.48	13.60	31.18	59.23	9.59	7.89	48.33	43.78	

PEAK HR.

FACTOR:	0.935	0.965	0.909	0.933	0.978
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CONTROL: **Signalized**

COMMENT 1: **0**

GPS: **33.926563, -117.419220**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Adams St.
E-W STREET: Indiana Ave.

Date: 03/03/16
Day: THURSDAY

City: Riverside
Project #: 16-1080-008

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	2	0	0
7:30 AM	0	1	0	1
7:45 AM	0	1	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	3	0
8:30 AM	0	0	0	0
8:45 AM	0	1	0	2
TOTAL	0	5	3	3

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	1	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	1	0

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	3	1	4
4:15 PM	0	1	1	3
4:30 PM	0	4	0	2
4:45 PM	0	2	0	1
5:00 PM	0	2	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	1
5:45 PM	0	0	0	0
TOTAL	0	12	2	11

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

North Leg

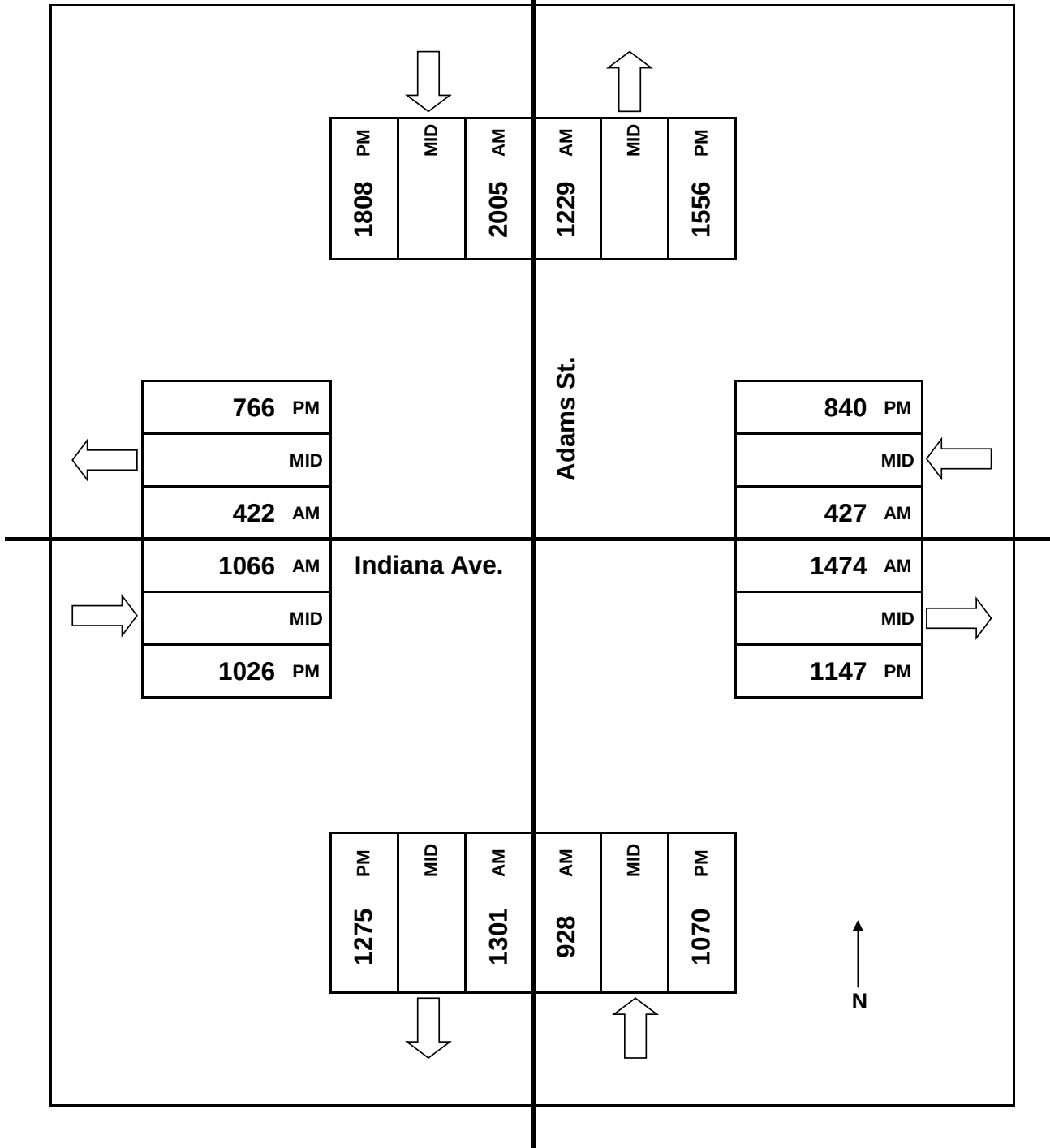
West Leg

East Leg

South Leg

JOB# 16-1080-008
VALIDATED: _____

DATE: 03/03/16
DAY: THURSDAY



Project #: **16-1080-009**

TMC SUMMARY OF Adams St. & Lincoln Ave.

		APPROACH LANES					
			1	1	1		
	TOTAL	AM	MD	PM	TOTAL		
					144	423	234
					93	288	119
					51	135	115

Adams St.

Lincoln Ave.

N

Lincoln Ave.

	TOTAL	AM	MD	PM	
1	162	111		51	
2	310	176		134	
0	23	10		13	

APPROACH LANES

CONTROL
Signalized

	AM	MD	PM	TOTAL	
	120		71	191	0
	178		254	432	2
	4		11	15	1

APPROACH LANES

	TOTAL	AM	MD	PM	
	16	12		4	
	485	361		124	
	20	13		7	

Adams St.

APPROACH LANES

LOCATION #: **16-1080-009**

TURNING MOVEMENT COUNT

Adams St. & Lincoln Ave.
(Intersection Name)

THURSDAY 03/03/16
Day Date

COUNT PERIODS

	700AM	-	900AM
AM			
NOON			
PM	400PM	-	600PM

AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/03/16**

LOCATION: **Riverside**

E-W STREET: **Lincoln Ave.**

DAY: **THURSDAY**

PROJECT# **16-1080-009**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	54	1	29	33	9	30	54	2	0	29	20	264
7:15 AM	2	65	5	25	20	11	32	65	2	1	33	22	283
7:30 AM	5	90	2	32	28	8	28	60	2	2	41	29	327
7:45 AM	2	99	6	30	24	13	24	43	3	1	45	32	322
8:00 AM	4	85	3	29	41	16	29	41	1	0	60	30	339
8:15 AM	1	87	2	24	42	14	30	32	4	1	32	29	298
8:30 AM	2	65	2	28	29	10	25	30	2	2	28	24	247
8:45 AM	3	39	4	21	33	11	21	33	2	1	24	28	220
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	22	584	25	218	250	92	219	358	18	8	292	214	2300
Approach %	3.49	92.55	3.96	38.93	44.64	16.43	36.81	60.17	3.03	1.56	56.81	41.63	
App/Depart	631	/	1017	560	/	276	595	/	601	514	/	406	

AM Peak Hr Begins at: 730 AM

PEAK

Volumes	12	361	13	115	135	51	111	176	10	4	178	120	1286
Approach %	3.11	93.52	3.37	38.21	44.85	16.94	37.37	59.26	3.37	1.32	58.94	39.74	

PEAK HR.

FACTOR:	0.902	0.875	0.825	0.839	0.948
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CONTROL: **Signalized**

COMMENT 1:

GPS: **33.920390, -117.414196**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Adams St.**

DATE: **03/03/16**

LOCATION: **Riverside**

E-W STREET: **Lincoln Ave.**

DAY: **THURSDAY**

PROJECT# **16-1080-009**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	1	28	2	24	43	20	14	54	2	6	58	28	280
4:15 PM	2	25	1	25	54	29	16	35	5	2	54	24	272
4:30 PM	0	32	3	28	76	24	13	30	2	5	63	20	296
4:45 PM	1	30	2	32	60	28	19	33	6	1	66	16	294
5:00 PM	2	33	1	30	65	21	8	29	3	4	60	14	270
5:15 PM	1	29	1	29	87	20	11	42	2	1	65	21	309
5:30 PM	1	24	2	24	50	13	10	41	2	2	54	24	247
5:45 PM	3	28	1	28	54	19	14	32	5	1	41	28	254
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	11	229	13	220	489	174	105	296	27	22	461	175	2222
Approach %	4.35	90.51	5.14	24.92	55.38	19.71	24.53	69.16	6.31	3.34	70.06	26.60	
App/Depart	253	/	509	883	/	538	428	/	529	658	/	646	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	4	124	7	119	288	93	51	134	13	11	254	71	1169
Approach %	2.96	91.85	5.19	23.80	57.60	18.60	25.76	67.68	6.57	3.27	75.60	21.13	

PEAK HR.

FACTOR:	0.938	0.919	0.853	0.955	0.946
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CONTROL: **Signalized**

COMMENT 1: **0**

GPS: **33.920390, -117.414196**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Adams St.
E-W STREET: Lincoln Ave.

Date: 03/03/16
Day: THURSDAY

City: Riverside
Project #: 16-1080-009

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	1	0	1	1
7:30 AM	0	1	1	0
7:45 AM	0	0	0	2
8:00 AM	0	0	0	1
8:15 AM	1	0	1	0
8:30 AM	2	2	2	2
8:45 AM	0	1	0	1
TOTAL	4	4	5	7

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	1	0	1	1
7:30 AM	1	0	1	0
7:45 AM	0	0	0	2
8:00 AM	0	0	1	1
8:15 AM	2	1	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	4	1	3	4

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	3	0	0	0
4:15 PM	2	0	0	1
4:30 PM	1	0	1	0
4:45 PM	1	1	0	0
5:00 PM	0	1	0	1
5:15 PM	0	0	1	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	7	2	2	2

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	2	0	0	0
4:30 PM	0	1	0	2
4:45 PM	0	1	0	1
5:00 PM	0	0	0	1
5:15 PM	0	0	1	1
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	2	2	1	5

North Leg

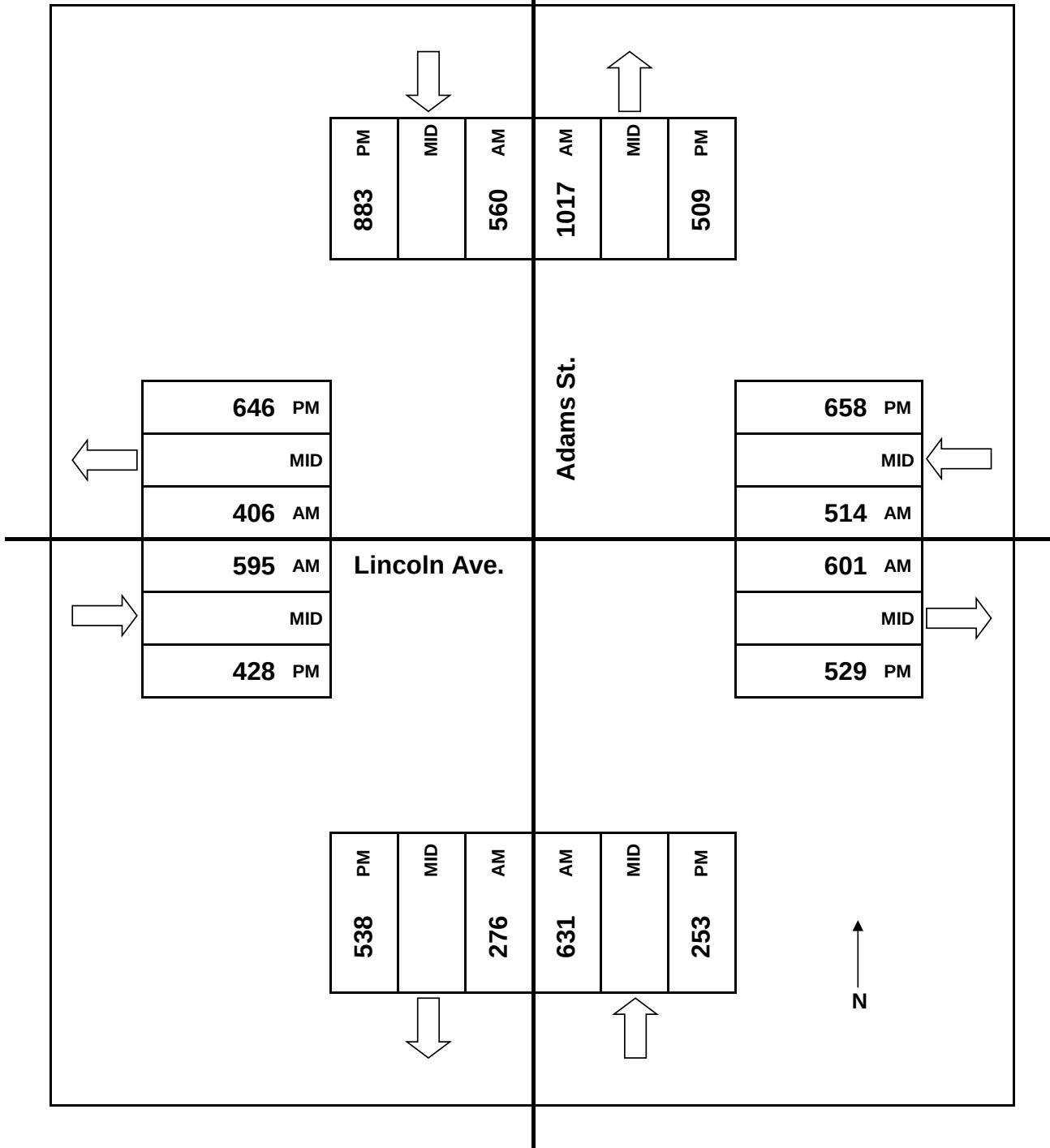
West Leg

East Leg

South Leg

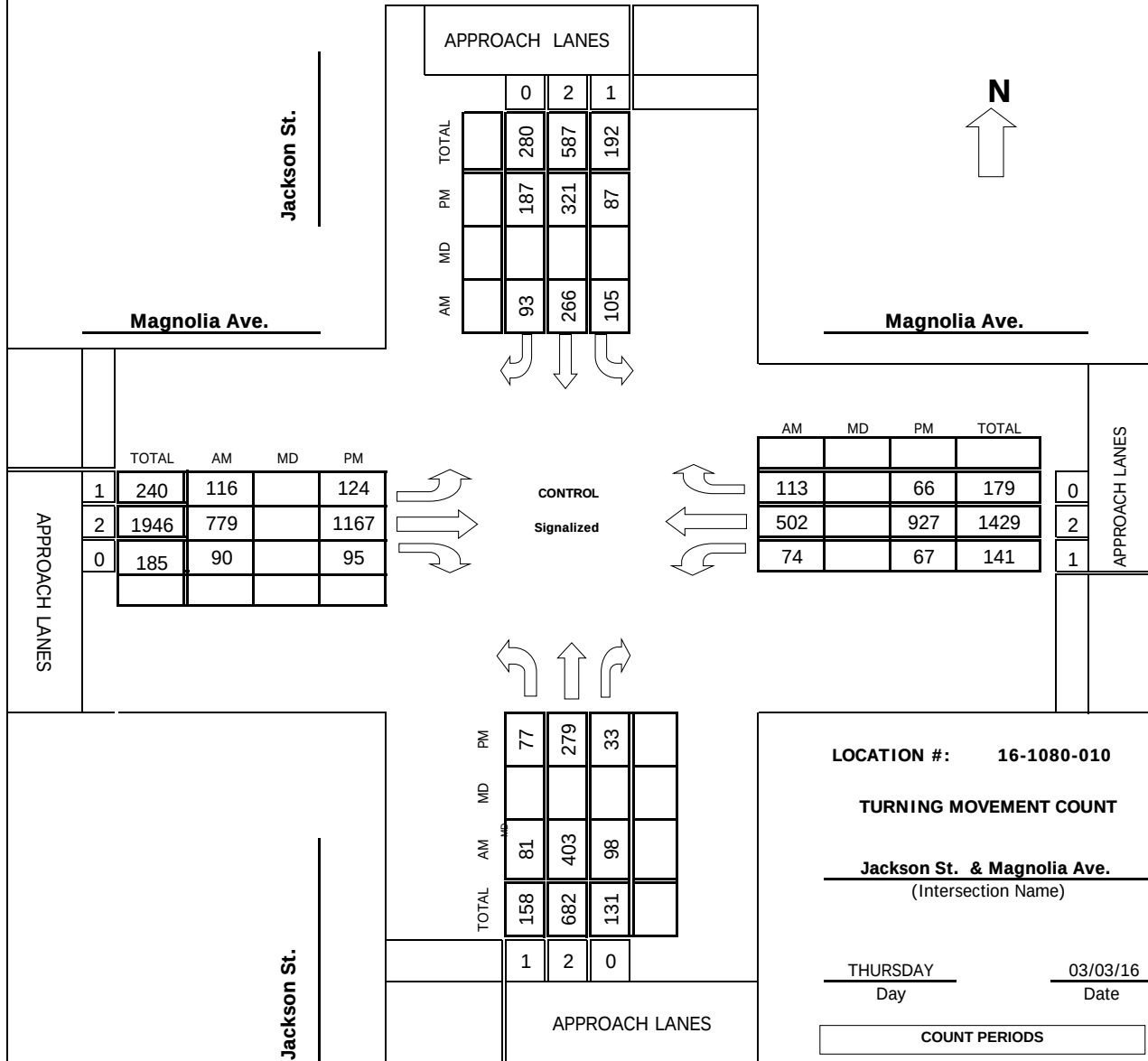
JOB# 16-1080-009
VALIDATED: _____

DATE: 03/03/16
DAY: THURSDAY



Project #: 16-1080-010

TMC SUMMARY OF Jackson St. & Magnolia Ave.



AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Jackson St.

DATE: 03/03/16

LOCATION: Riverside

E-W STREET: Magnolia Ave.

DAY: THURSDAY

PROJECT# 16-1080-010

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	10	81	12	18	33	19	12	169	9	12	69	13	457
7:15 AM	12	78	17	31	50	16	17	187	10	13	103	11	545
7:30 AM	17	97	40	43	86	24	27	226	22	34	112	19	747
7:45 AM	22	98	33	31	77	30	29	214	27	25	143	28	757
8:00 AM	21	114	14	19	59	21	38	176	23	8	122	39	654
8:15 AM	21	94	11	12	44	18	22	163	18	7	125	27	562
8:30 AM	23	103	16	16	36	20	28	136	17	10	106	32	543
8:45 AM	6	60	13	19	37	17	29	159	14	7	89	25	475
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	132	725	156	189	422	165	202	1430	140	116	869	194	4740
Approach %	13.03	71.57	15.40	24.36	54.38	21.26	11.40	80.70	7.90	9.84	73.71	16.45	
App/Depart	1013	/	1121	776	/	678	1772	/	1775	1179	/	1166	

AM Peak Hr Begins at: 730 AM

PEAK

Volumes	81	403	98	105	266	93	116	779	90	74	502	113	2720
Approach %	13.92	69.24	16.84	22.63	57.33	20.04	11.78	79.09	9.14	10.74	72.86	16.40	

PEAK HR.

FACTOR:	0.945	0.758	0.895	0.879	0.898
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CONTROL: Signalized

COMMENT 1:

GPS: 33.924382, -117.439103



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Jackson St.

DATE: 03/03/16

LOCATION: Riverside

E-W STREET: Magnolia Ave.

DAY: THURSDAY

PROJECT# 16-1080-010

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	37	69	10	38	80	59	26	229	33	13	174	26	794
4:15 PM	16	69	6	20	88	54	23	239	30	14	159	15	733
4:30 PM	22	77	8	18	67	48	31	299	24	13	276	16	899
4:45 PM	22	72	9	20	77	48	31	287	26	14	211	13	830
5:00 PM	17	64	5	33	72	44	25	282	25	21	232	11	831
5:15 PM	16	66	11	16	105	47	37	299	20	19	208	26	870
5:30 PM	11	61	21	36	90	40	41	249	19	18	217	26	829
5:45 PM	21	93	13	17	73	27	40	228	16	17	176	20	741
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	162	571	83	198	652	367	254	2112	193	129	1653	153	6527
Approach %	19.85	69.98	10.17	16.27	53.57	30.16	9.93	82.53	7.54	6.67	85.43	7.91	
App/Depart	816	/	978	1217	/	974	2559	/	2393	1935	/	2182	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	77	279	33	87	321	187	124	1167	95	67	927	66	3430
Approach %	19.79	71.72	8.48	14.62	53.95	31.43	8.95	84.20	6.85	6.32	87.45	6.23	

PEAK HR.

FACTOR:	0.909	0.885	0.973	0.869	0.954
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CONTROL: Signalized

COMMENT 1: 0

GPS: 33.924382, -117.439103



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Jackson St.
E-W STREET: Magnolia Ave.

Date: 03/03/16
Day: THURSDAY

City: Riverside
Project #: 16-1080-010

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	2	2	1
7:15 AM	0	5	10	3
7:30 AM	0	6	8	6
7:45 AM	1	1	0	1
8:00 AM	0	1	1	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	1	1	0
TOTAL	1	16	22	11

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	2	0	0
7:30 AM	0	1	0	1
7:45 AM	0	1	1	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	4	1	1

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	4	0	5	0
4:15 PM	2	2	4	1
4:30 PM	5	1	3	2
4:45 PM	2	2	1	2
5:00 PM	2	1	0	0
5:15 PM	2	4	0	2
5:30 PM	0	0	0	1
5:45 PM	0	1	0	0
TOTAL	17	11	13	8

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	1	0
4:15 PM	0	1	1	0
4:30 PM	2	1	0	1
4:45 PM	0	1	1	0
5:00 PM	0	0	0	0
5:15 PM	0	0	1	0
5:30 PM	1	0	1	1
5:45 PM	0	0	0	0
TOTAL	3	3	5	2

North Leg

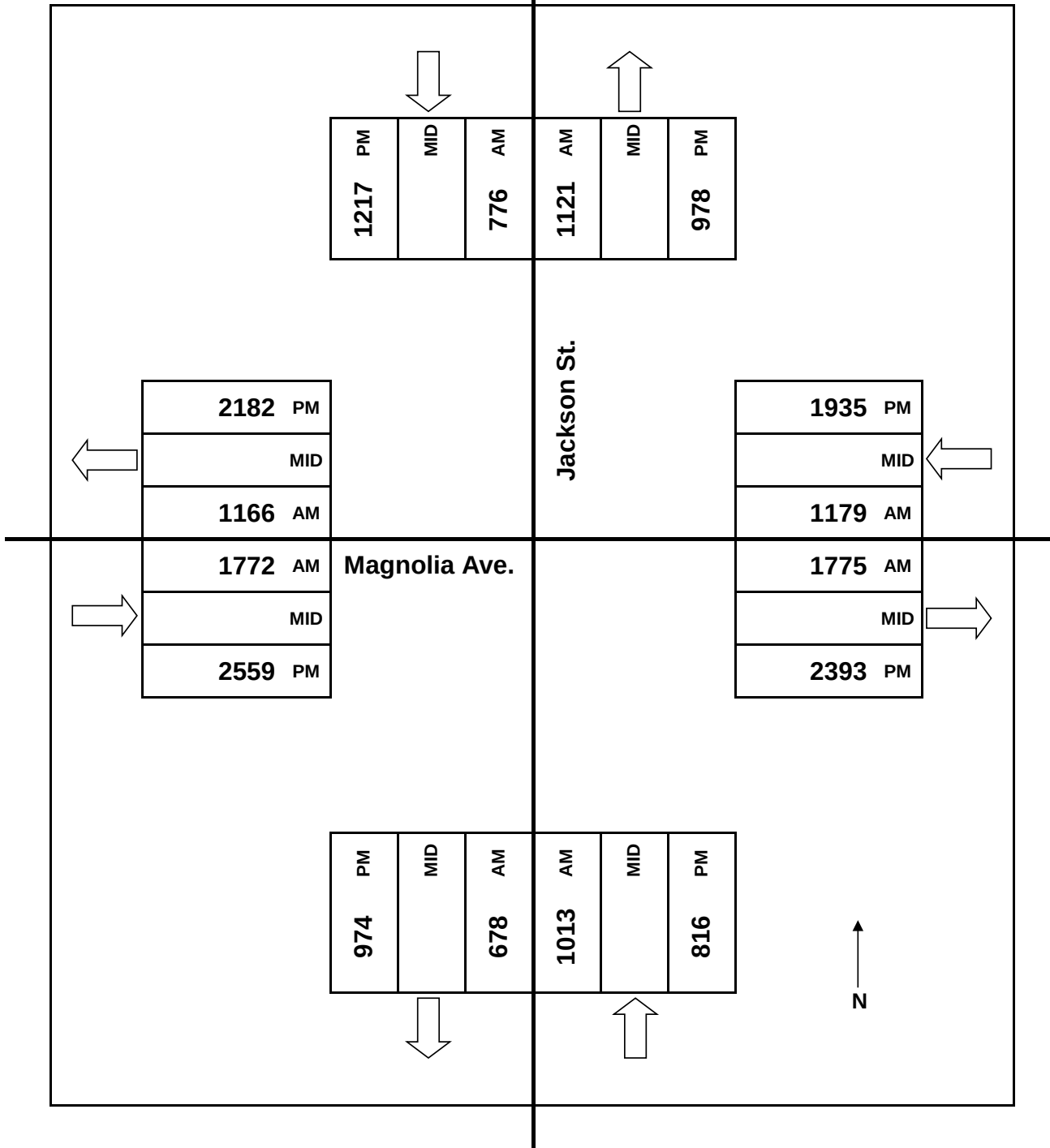
West Leg

East Leg

South Leg

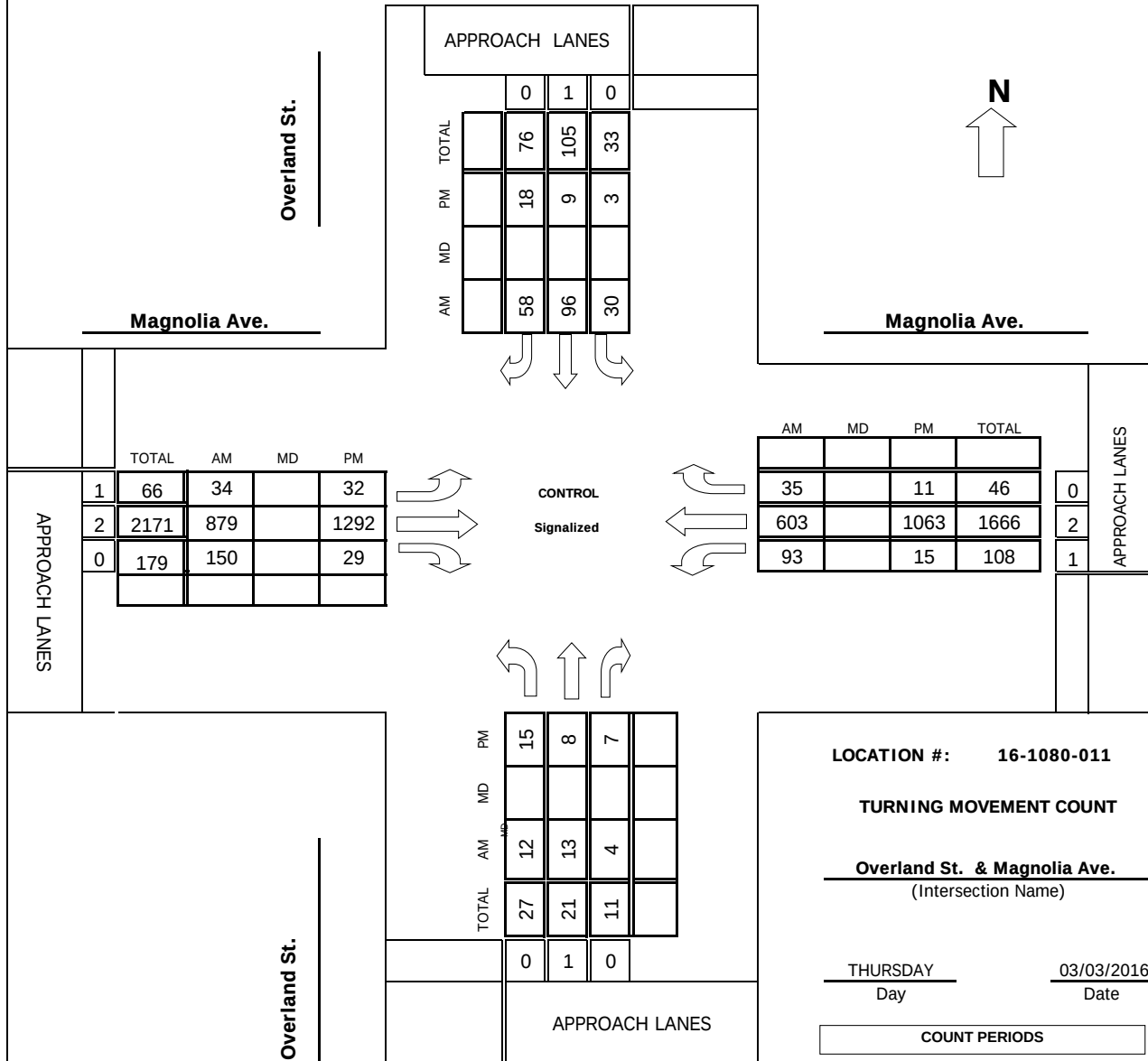
JOB# 16-1080-010
VALIDATED: _____

DATE: 03/03/16
DAY: THURSDAY



Project #: 16-1080-011

TMC SUMMARY OF Overland St. & Magnolia Ave.



AM PEAK HOUR 715 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Overland St.

DATE: 03/03/2016

LOCATION: Riverside

E-W STREET: Magnolia Ave.

DAY: THURSDAY

PROJECT# 16-1080-011

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	0	1	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	1	0	2	1	1	3	163	16	9	99	1	297
7:15 AM	4	1	1	3	27	12	7	200	40	22	115	13	445
7:30 AM	3	5	0	15	32	20	17	243	59	38	145	6	583
7:45 AM	5	6	2	8	33	19	7	225	46	31	190	8	580
8:00 AM	0	1	1	4	4	7	3	211	5	2	153	8	399
8:15 AM	1	0	0	5	1	4	4	181	1	1	160	1	359
8:30 AM	0	0	0	2	0	3	0	178	0	0	135	0	318
8:45 AM	0	0	0	2	2	4	2	197	2	1	143	2	355
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	14	14	4	41	100	70	43	1598	169	104	1140	39	3336
Approach %	43.75	43.75	12.50	19.43	47.39	33.18	2.38	88.29	9.34	8.11	88.85	3.04	
App/Depart	32	/	96	211	/	373	1810	/	1643	1283	/	1224	

AM Peak Hr Begins at: 715 AM

PEAK

Volumes	12	13	4	30	96	58	34	879	150	93	603	35	2007
Approach %	41.38	44.83	13.79	16.30	52.17	31.52	3.20	82.69	14.11	12.72	82.49	4.79	

PEAK HR.

FACTOR:	0.558	0.687	0.833	0.798	0.861
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CONTROL: Signalized

COMMENT 1:

GPS: 33.927001, -117.434580



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Overland St.** DATE: **03/03/2016** LOCATION: **Riverside**
E-W STREET: **Magnolia Ave.** DAY: **THURSDAY** PROJECT# **16-1080-011**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	0	1	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	3	2	1	1	3	3	5	287	3	4	215	7	534
4:15 PM	2	5	2	0	4	3	19	286	9	4	172	4	510
4:30 PM	5	4	6	1	2	6	7	337	12	3	313	6	702
4:45 PM	2	0	0	0	1	5	8	302	5	4	241	2	570
5:00 PM	3	0	1	2	1	7	7	325	6	4	271	0	627
5:15 PM	5	4	0	0	5	0	10	328	6	4	238	3	603
5:30 PM	6	0	0	1	1	5	7	293	8	5	260	6	592
5:45 PM	5	0	0	1	0	4	6	258	3	2	212	4	495
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	31	15	10	6	17	33	69	2416	52	30	1922	32	4633
Approach %	55.36	26.79	17.86	10.71	30.36	58.93	2.72	95.23	2.05	1.51	96.88	1.61	
App/Depart	56	/	116	56	/	99	2537	/	2432	1984	/	1986	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	15	8	7	3	9	18	32	1292	29	15	1063	11	2502
Approach %	50.00	26.67	23.33	10.00	30.00	60.00	2.37	95.49	2.14	1.38	97.61	1.01	

PEAK HR.

FACTOR:	0.500	0.750	0.950	0.845	0.891
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CONTROL: **Signalized**

COMMENT 1: **0**

GPS: **33.927001, -117.434580**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Overland St.
E-W STREET: Magnolia Ave.

Date: 03/03/2016
Day: THURSDAY

City: Riverside
Project #: 16-1080-011

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	1	0	2	1
7:15 AM	1	5	15	21
7:30 AM	1	3	16	65
7:45 AM	1	6	12	30
8:00 AM	3	0	0	3
8:15 AM	0	0	0	0
8:30 AM	0	0	1	0
8:45 AM	1	0	0	0
TOTAL	8	14	46	120

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	2	0	1
7:15 AM	0	1	0	0
7:30 AM	0	0	0	0
7:45 AM	0	1	0	0
8:00 AM	0	1	0	0
8:15 AM	0	0	0	0
8:30 AM	0	1	0	0
8:45 AM	2	0	0	0
TOTAL	2	6	0	1

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	3	0
4:15 PM	4	1	1	7
4:30 PM	1	0	10	1
4:45 PM	1	0	0	0
5:00 PM	1	1	0	0
5:15 PM	0	1	0	0
5:30 PM	1	0	1	0
5:45 PM	3	0	0	0
TOTAL	11	3	15	8

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	4	0	0
4:15 PM	0	1	0	0
4:30 PM	3	2	0	0
4:45 PM	3	1	0	0
5:00 PM	1	2	0	0
5:15 PM	1	1	0	0
5:30 PM	3	3	0	0
5:45 PM	0	1	0	0
TOTAL	11	15	0	0

North Leg

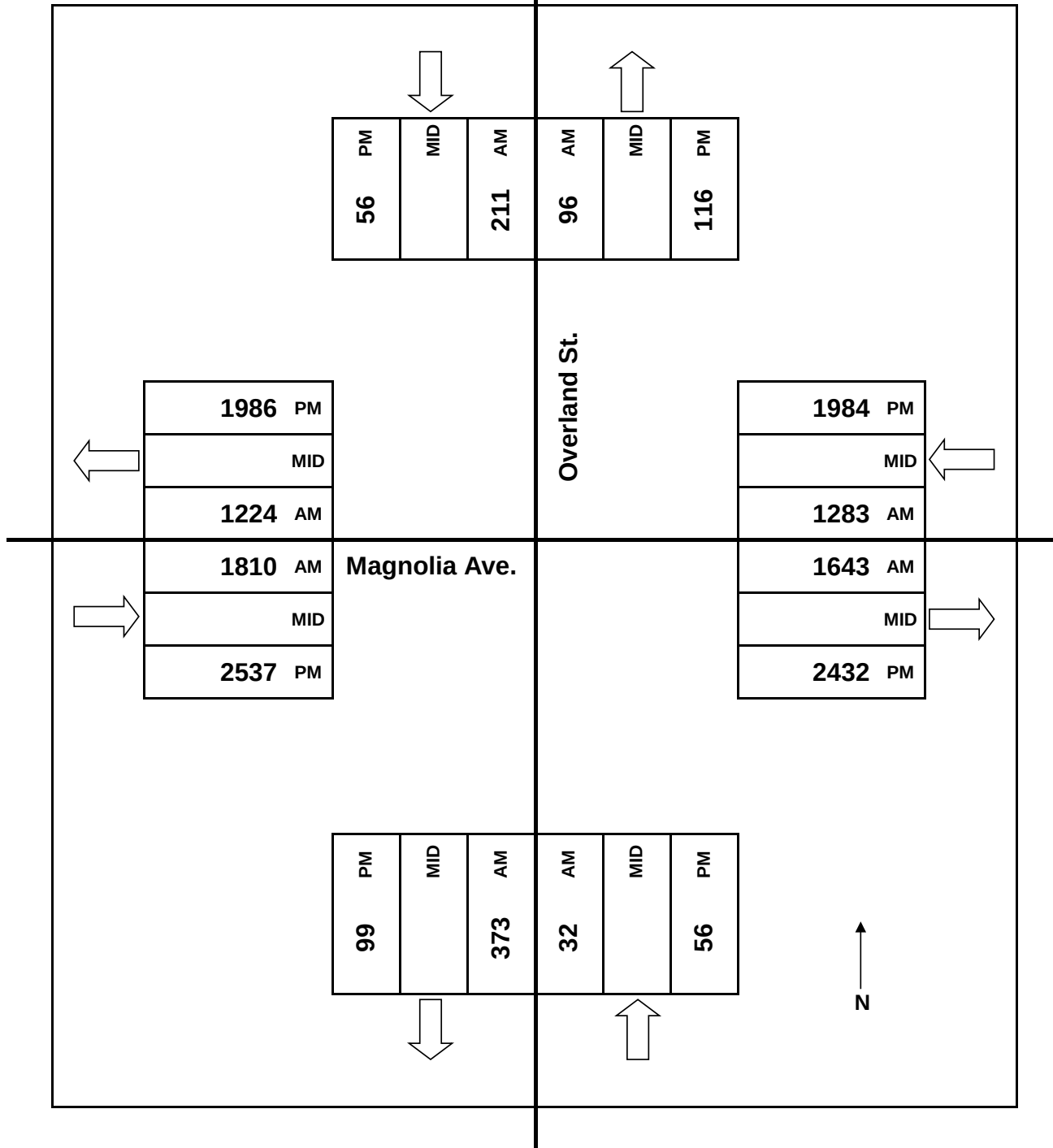
West Leg

East Leg

South Leg

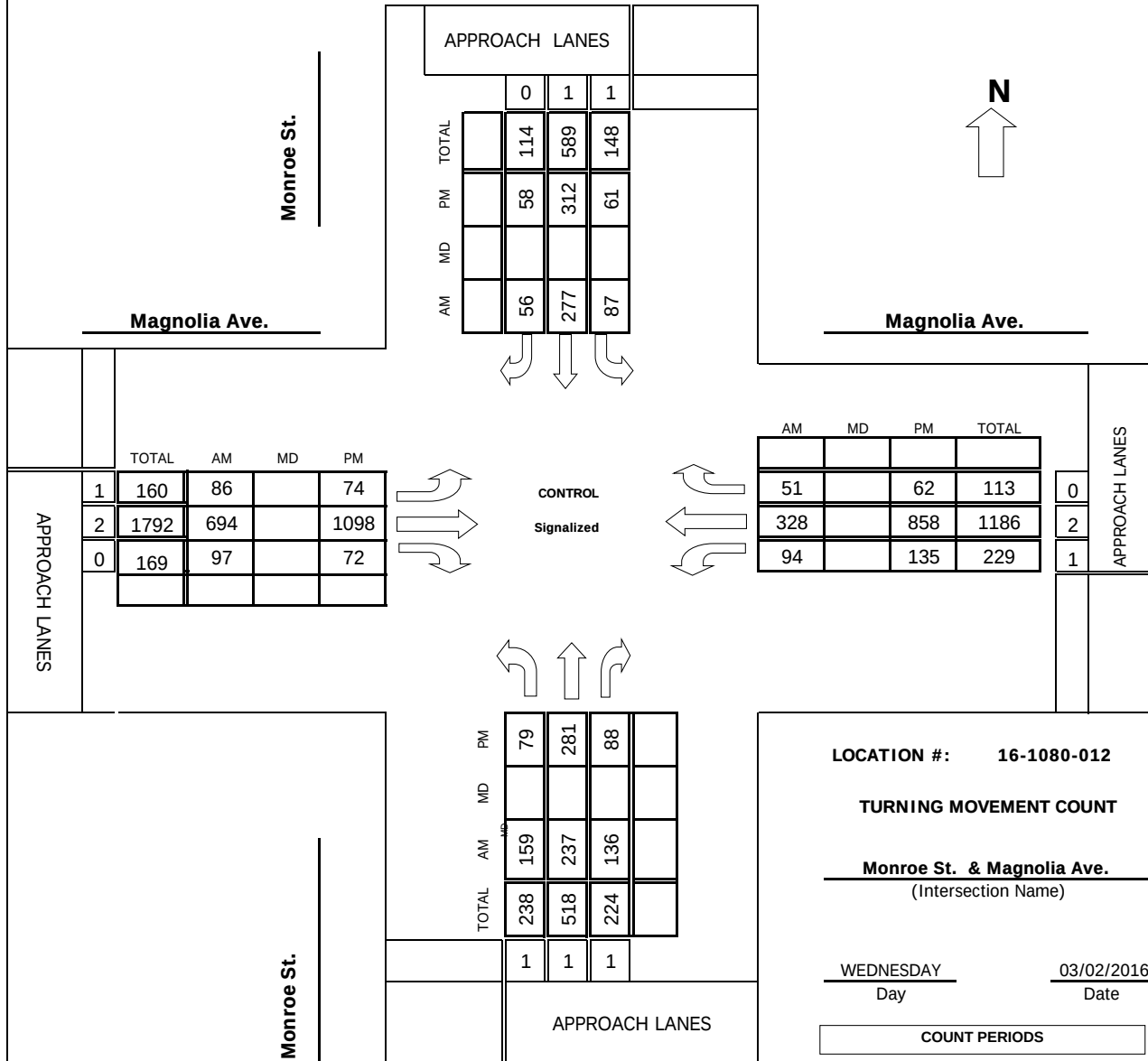
JOB# 16-1080-011
VALIDATED: _____

DATE: 03/03/2016
DAY: THURSDAY



Project #: 16-1080-012

TMC SUMMARY OF Monroe St. & Magnolia Ave.



AM PEAK HOUR 715 AM

NOON PEAK HOUR

PM PEAK HOUR 500 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Monroe St.**

DATE: **03/02/2016**

LOCATION: **Riverside**

E-W STREET: **Magnolia Ave.**

DAY: **WEDNESDAY**

PROJECT# **16-1080-012**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	22	36	28	19	38	9	19	113	27	19	66	8	404
7:15 AM	20	44	24	22	95	11	16	168	24	24	60	11	519
7:30 AM	44	60	41	20	85	10	31	199	28	25	87	10	640
7:45 AM	36	68	42	24	55	21	18	182	24	21	85	14	590
8:00 AM	59	65	29	21	42	14	21	145	21	24	96	16	553
8:15 AM	50	45	33	25	40	16	14	115	25	10	103	13	489
8:30 AM	44	40	30	24	43	13	22	148	21	11	111	19	526
8:45 AM	31	36	32	26	39	9	17	138	29	9	104	13	483
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	306	394	259	181	437	103	158	1208	199	143	712	104	4204
Approach %	31.91	41.08	27.01	25.10	60.61	14.29	10.10	77.19	12.72	14.91	74.24	10.84	
App/Depart	959	/	656	721	/	779	1565	/	1648	959	/	1121	

AM Peak Hr Begins at: 715 AM

PEAK

Volumes	159	237	136	87	277	56	86	694	97	94	328	51	2302
Approach %	29.89	44.55	25.56	20.71	65.95	13.33	9.81	79.13	11.06	19.87	69.34	10.78	

PEAK HR.

FACTOR:	0.869	0.820	0.850	0.869	0.899
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CONTROL: **Signalized**

COMMENT 1:

GPS: **33.928590, -117.431691**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: [Monroe St.](#)

DATE: [03/02/2016](#)

LOCATION: [Riverside](#)

E-W STREET: [Magnolia Ave.](#)

DAY: [WEDNESDAY](#)

PROJECT# [16-1080-012](#)

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	1	1	1	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	10	50	18	12	46	13	25	249	35	19	225	19	721
4:15 PM	18	75	15	17	50	16	19	263	36	16	232	13	770
4:30 PM	15	54	19	14	55	14	22	228	24	21	214	18	698
4:45 PM	16	58	37	12	77	21	20	241	18	28	191	20	739
5:00 PM	16	65	17	15	75	16	21	239	9	42	203	14	732
5:15 PM	19	60	26	16	79	11	14	298	12	41	208	16	800
5:30 PM	19	59	24	16	80	18	19	285	23	24	221	13	801
5:45 PM	25	97	21	14	78	13	20	276	28	28	226	19	845
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	138	518	177	116	540	122	160	2079	185	219	1720	132	6106
Approach %	16.57	62.18	21.25	14.91	69.41	15.68	6.60	85.77	7.63	10.57	83.05	6.37	
App/Depart	833	/	810	778	/	944	2424	/	2372	2071	/	1980	

PM Peak Hr Begins at: 500 PM

PEAK

Volumes	79	281	88	61	312	58	74	1098	72	135	858	62	3178
Approach %	17.63	62.72	19.64	14.15	72.39	13.46	5.95	88.26	5.79	12.80	81.33	5.88	

PEAK HR.

FACTOR:	0.783	0.945	0.951	0.966	0.940
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CONTROL: [Signalized](#)

COMMENT 1: [0](#)

GPS: [33.928590, -117.431691](#)



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Monroe St.
E-W STREET: Magnolia Ave.

Date: 03/02/2016
Day: WEDNESDAY

City: Riverside
Project #: 16-1080-012

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	4	4	2	6
7:15 AM	6	3	5	4
7:30 AM	12	2	9	10
7:45 AM	5	4	7	5
8:00 AM	10	10	3	6
8:15 AM	9	5	5	3
8:30 AM	6	3	4	5
8:45 AM	3	11	6	9
TOTAL	55	42	41	48

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	4	14	0	7
4:15 PM	7	10	2	7
4:30 PM	2	0	9	6
4:45 PM	4	1	0	2
5:00 PM	1	0	1	2
5:15 PM	2	0	1	0
5:30 PM	0	1	0	0
5:45 PM	7	6	6	4
TOTAL	27	32	19	28

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	1	3	1	2
4:15 PM	0	2	0	1
4:30 PM	0	1	0	1
4:45 PM	1	0	0	0
5:00 PM	1	1	0	0
5:15 PM	0	0	0	0
5:30 PM	1	1	0	0
5:45 PM	0	1	0	0
TOTAL	4	9	1	4

North Leg

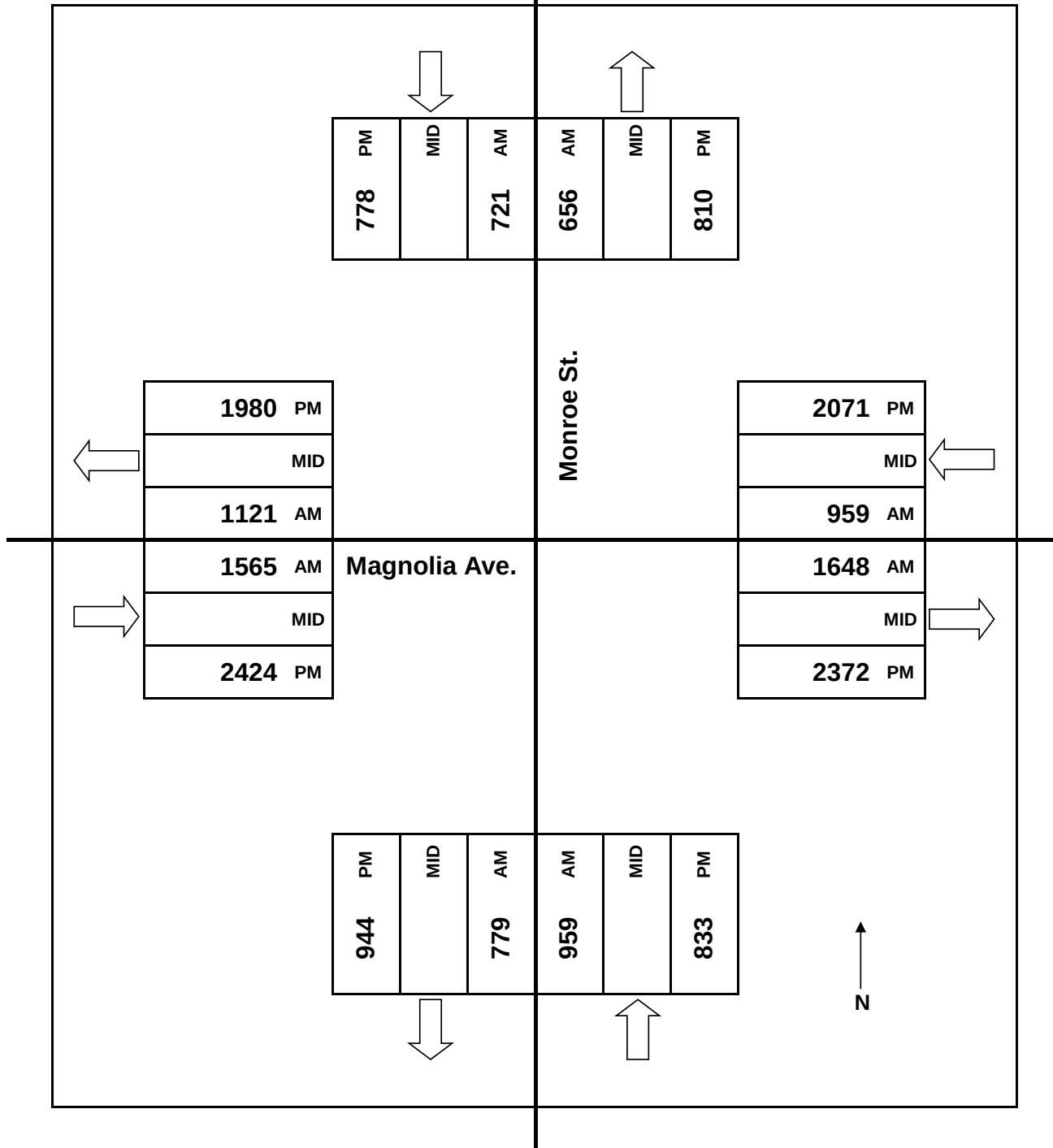
West Leg

East Leg

South Leg

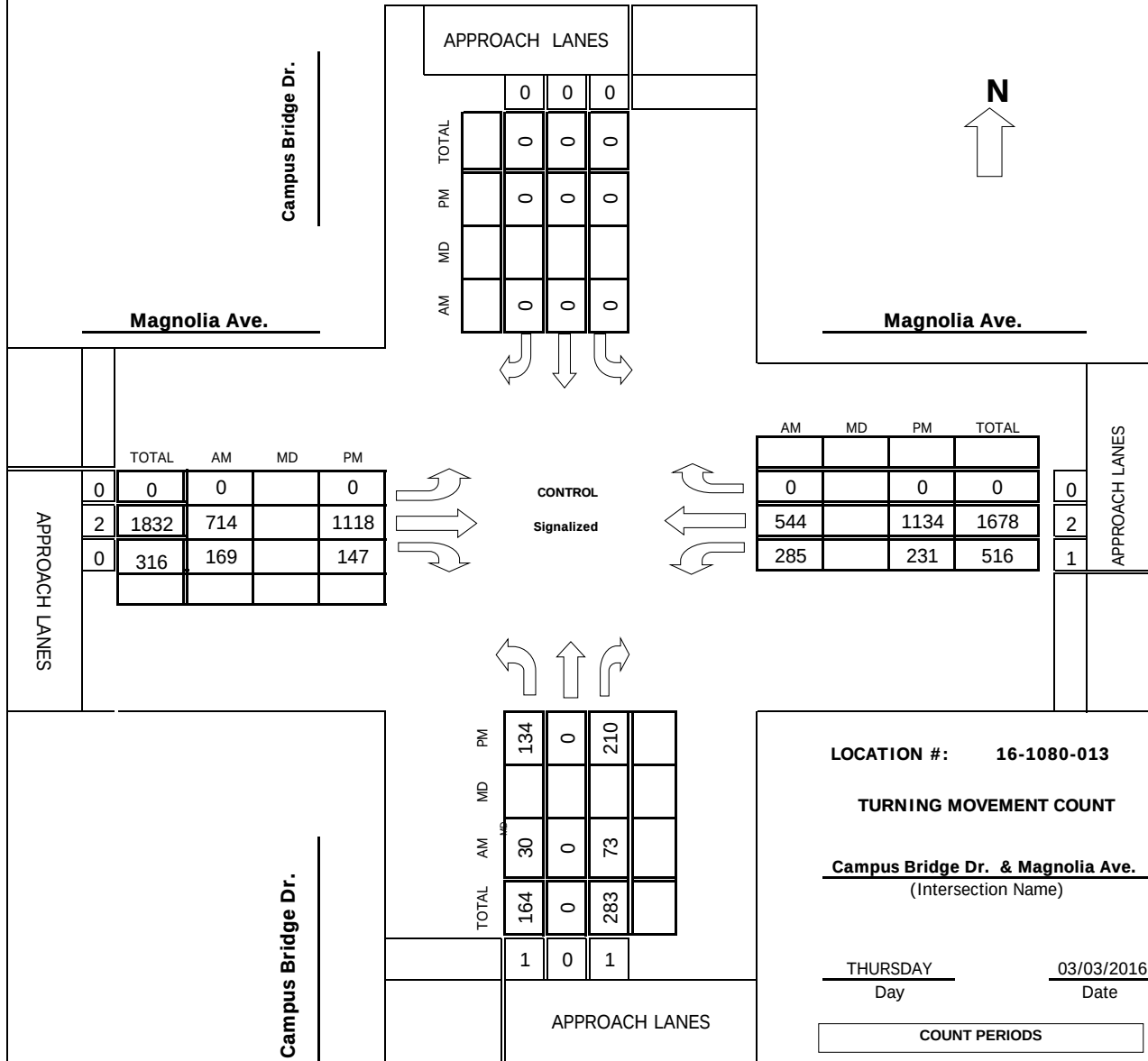
JOB# 16-1080-012
VALIDATED: _____

DATE: 03/02/2016
DAY: WEDNESDAY



Project #: 16-1080-013

TMC SUMMARY OF Campus Bridge Dr. & Magnolia Ave.



AM PEAK HOUR 745 AM

NOON PEAK HOUR

PM PEAK HOUR 500 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Campus Bridge Dr.

DATE: 03/03/2016

LOCATION: Riverside

E-W STREET: Magnolia Ave.

DAY: THURSDAY

PROJECT# 16-1080-013

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0	NR 1	SL 0	ST 0	SR 0	EL 0	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	0	5	0	0	0	0	113	15	23	77	0	236
7:15 AM	4	0	11	0	0	0	0	205	22	33	106	0	381
7:30 AM	0	0	10	0	0	0	0	243	13	34	153	0	453
7:45 AM	9	0	10	0	0	0	0	232	20	47	165	0	483
8:00 AM	3	0	11	0	0	0	0	173	25	45	136	0	393
8:15 AM	3	0	17	0	0	0	0	163	35	76	125	0	419
8:30 AM	15	0	35	0	0	0	0	146	89	117	118	0	520
8:45 AM	10	0	18	0	0	0	0	167	36	60	156	0	447
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	47	0	117	0	0	0	0	1442	255	435	1036	0	3332
Approach %	28.66	0.00	71.34	####	####	####	0.00	84.97	15.03	29.57	70.43	0.00	
App/Depart	164	/	0	0	/	690	1697	/	1559	1471	/	1083	

AM Peak Hr Begins at: 745 AM

PEAK

Volumes	30	0	73	0	0	0	0	714	169	285	544	0	1815
Approach %	29.13	0.00	70.87	####	####	####	0.00	80.86	19.14	34.38	65.62	0.00	

PEAK HR.

FACTOR:	0.515	0.000	0.876	0.882	0.873
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CONTROL: Signalized

COMMENT 1:

GPS: 33.930569, -117.428281



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Campus Bridge Dr.

DATE: 03/03/2016

LOCATION: Riverside

E-W STREET: Magnolia Ave.

DAY: THURSDAY

PROJECT# 16-1080-013

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	0	1	0	0	0	0	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	14	0	28	0	0	0	0	256	41	43	229	0	611
4:15 PM	16	0	35	0	0	0	0	252	40	42	240	0	625
4:30 PM	22	0	42	0	0	0	0	227	38	51	264	0	644
4:45 PM	32	0	48	0	0	0	0	236	28	40	225	0	609
5:00 PM	35	0	72	0	0	0	0	225	27	57	292	0	708
5:15 PM	36	0	58	0	0	0	0	307	41	51	305	0	798
5:30 PM	37	0	35	0	0	0	0	305	31	48	294	0	750
5:45 PM	26	0	45	0	0	0	0	281	48	75	243	0	718
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	218	0	363	0	0	0	0	2089	294	407	2092	0	5463
Approach %	37.52	0.00	62.48	####	####	####	0.00	87.66	12.34	16.29	83.71	0.00	
App/Depart	581	/	0	0	/	701	2383	/	2452	2499	/	2310	

PM Peak Hr Begins at: 500 PM

PEAK

Volumes	134	0	210	0	0	0	0	1118	147	231	1134	0	2974
Approach %	38.95	0.00	61.05	####	####	####	0.00	88.38	11.62	16.92	83.08	0.00	

PEAK HR.

FACTOR:	0.804	0.000	0.909	0.959	0.932
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CONTROL: Signalized

COMMENT 1: 0

GPS: 33.930569, -117.428281



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Campus Bridge Dr.
E-W STREET: Magnolia Ave.

Date: 03/03/2016
Day: THURSDAY

City: Riverside
Project #: 16-1080-013

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	4	0	3
7:15 AM	0	5	0	0
7:30 AM	0	10	0	3
7:45 AM	0	6	0	1
8:00 AM	0	1	0	4
8:15 AM	0	1	0	3
8:30 AM	0	1	0	3
8:45 AM	0	1	0	3
TOTAL	0	29	0	20

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	1	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	1	0	0
7:45 AM	0	0	0	0
8:00 AM	1	0	0	0
8:15 AM	2	0	0	0
8:30 AM	0	1	0	0
8:45 AM	0	0	0	0
TOTAL	4	2	0	0

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	1	0	2
4:15 PM	0	2	0	2
4:30 PM	0	1	0	3
4:45 PM	0	3	0	8
5:00 PM	0	1	0	5
5:15 PM	0	8	0	1
5:30 PM	0	5	0	6
5:45 PM	0	5	0	6
TOTAL	0	26	0	33

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	1	1	0	0
4:15 PM	1	2	0	0
4:30 PM	1	0	0	0
4:45 PM	0	1	0	0
5:00 PM	2	1	0	0
5:15 PM	0	1	0	0
5:30 PM	0	0	0	0
5:45 PM	0	2	0	0
TOTAL	5	8	0	0

North Leg

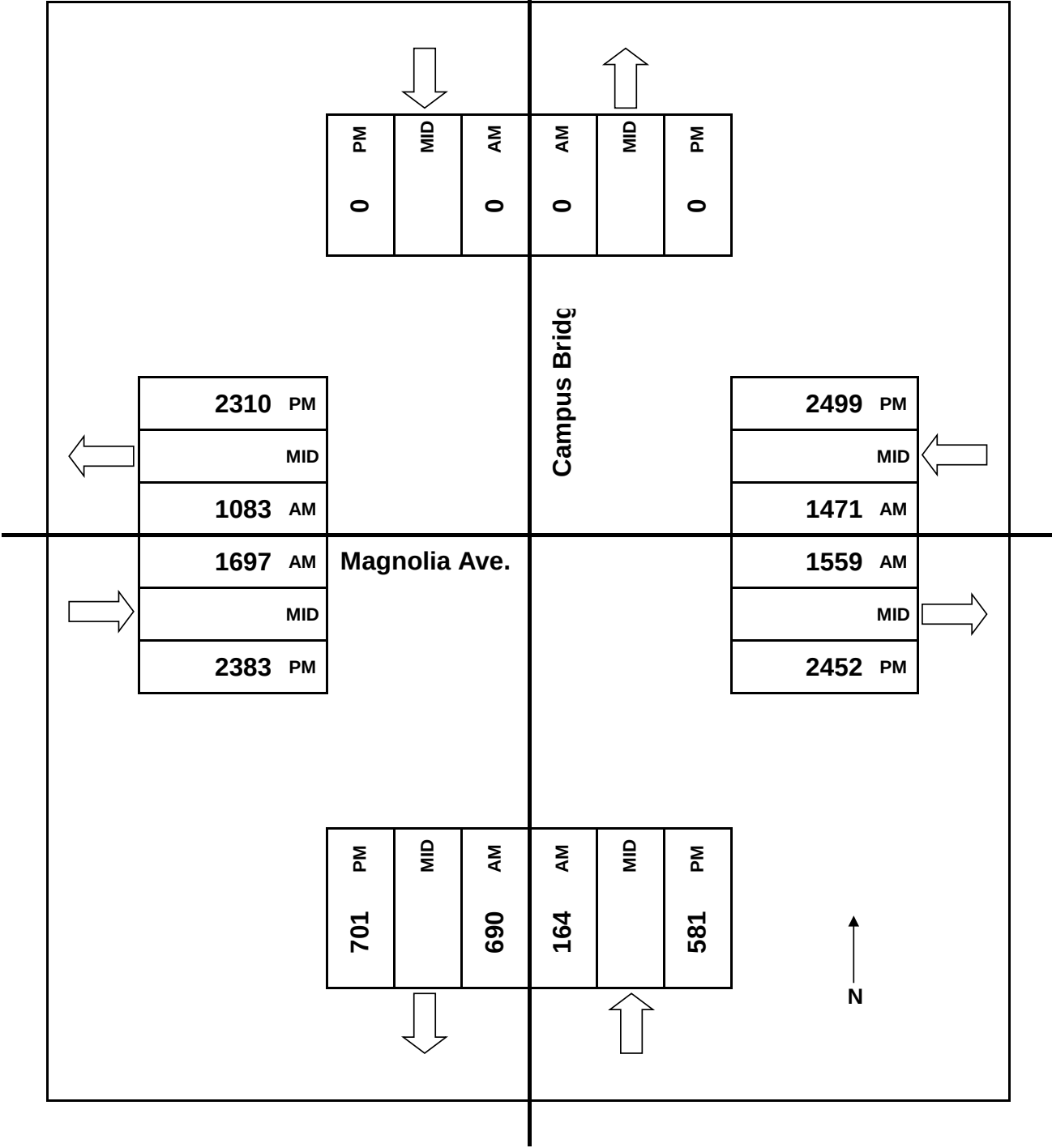
West Leg

East Leg

South Leg

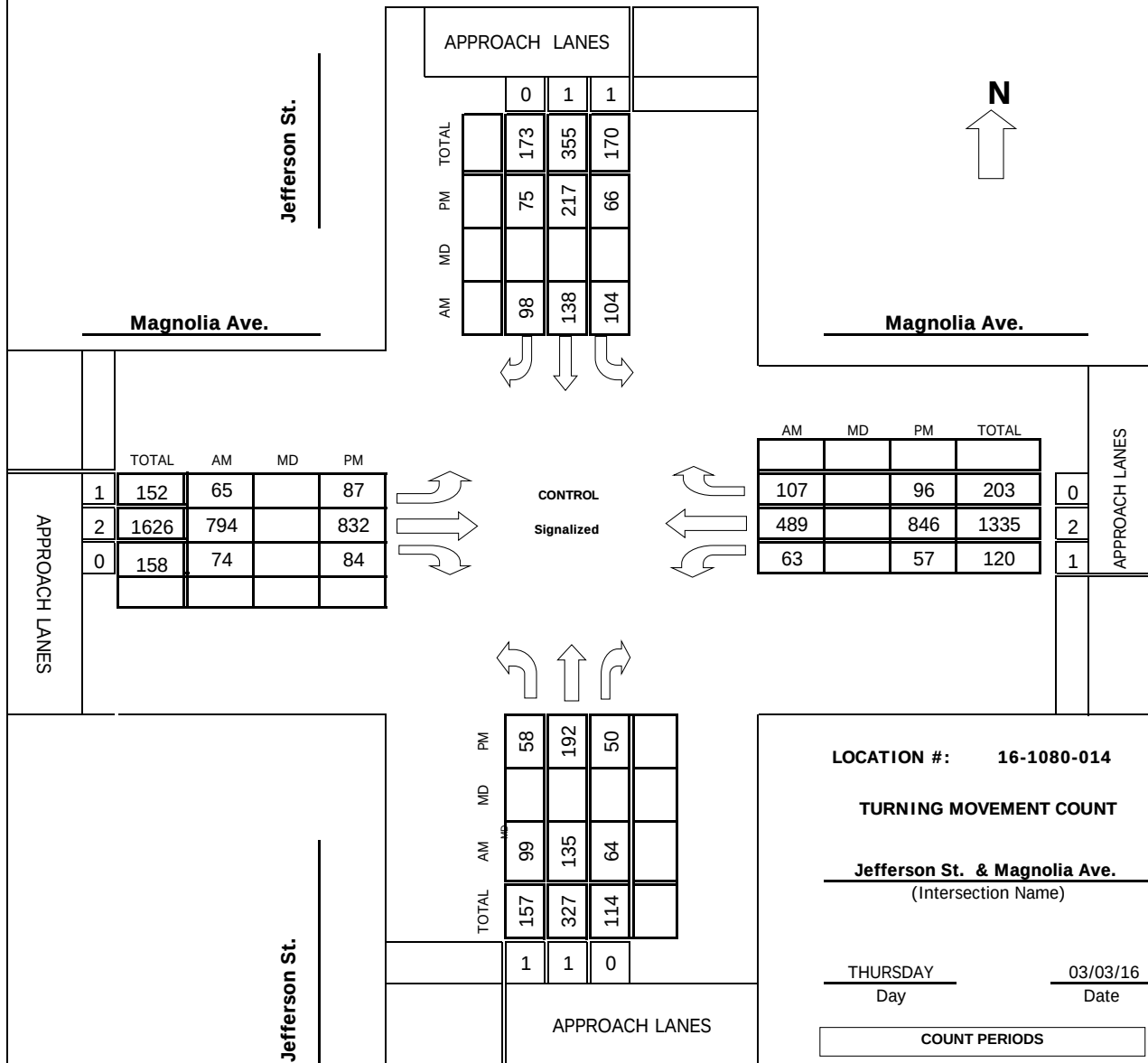
JOB# 16-1080-013
VALIDATED: _____

DATE: 03/03/2016
DAY: THURSDAY



Project #: 16-1080-014

TMC SUMMARY OF Jefferson St. & Magnolia Ave.



AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 500 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Jefferson St.** DATE: **03/03/16** LOCATION: **Riverside**
E-W STREET: **Magnolia Ave.** DAY: **THURSDAY** PROJECT# **16-1080-014**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	9	31	11	5	22	13	13	113	8	5	56	14	300
7:15 AM	10	47	18	26	28	11	16	158	5	8	63	28	418
7:30 AM	21	39	13	24	30	19	13	239	15	15	108	28	564
7:45 AM	33	40	25	35	27	41	32	186	19	17	155	45	655
8:00 AM	33	25	18	28	49	24	13	189	23	19	124	24	569
8:15 AM	12	31	8	17	32	14	7	180	17	12	102	10	442
8:30 AM	12	29	7	9	32	11	7	163	16	8	108	10	412
8:45 AM	13	43	9	13	40	10	8	142	19	16	77	15	405
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	143	285	109	157	260	143	109	1370	122	100	793	174	3765
Approach %	26.63	53.07	20.30	28.04	46.43	25.54	6.81	85.57	7.62	9.37	74.32	16.31	
App/Depart	537	/	568	560	/	482	1601	/	1636	1067	/	1079	

AM Peak Hr Begins at: 730 AM

PEAK

Volumes	99	135	64	104	138	98	65	794	74	63	489	107	2230
Approach %	33.22	45.30	21.48	30.59	40.59	28.82	6.97	85.10	7.93	9.56	74.20	16.24	

PEAK HR.

FACTOR:	0.760	0.825	0.874	0.759	0.851
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CONTROL:

COMMENT 1:

GPS:

Signalized

33.937076, -117.416856



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: **Jefferson St.** DATE: **03/03/16** LOCATION: **Riverside**
E-W STREET: **Magnolia Ave.** DAY: **THURSDAY** PROJECT# **16-1080-014**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	11	40	15	22	55	14	12	260	21	17	208	20	695
4:15 PM	10	34	17	11	70	20	17	192	18	20	196	19	624
4:30 PM	22	49	6	18	58	17	19	196	17	9	221	7	639
4:45 PM	16	51	18	24	54	6	17	204	14	11	205	15	635
5:00 PM	16	35	6	15	47	19	18	237	20	13	228	25	679
5:15 PM	11	62	19	22	73	19	22	215	22	13	194	26	698
5:30 PM	15	38	13	18	38	18	22	197	20	16	213	17	625
5:45 PM	16	57	12	11	59	19	25	183	22	15	211	28	658
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	117	366	106	141	454	132	152	1684	154	114	1676	157	5253
Approach %	19.86	62.14	18.00	19.39	62.45	18.16	7.64	84.62	7.74	5.86	86.08	8.06	
App/Depart	589	/	675	727	/	722	1990	/	1931	1947	/	1925	

PM Peak Hr Begins at: 500 PM

PEAK

Volumes	58	192	50	66	217	75	87	832	84	57	846	96	2660
Approach %	19.33	64.00	16.67	18.44	60.61	20.95	8.67	82.95	8.37	5.71	84.68	9.61	

PEAK HR.

FACTOR:	0.815	0.785	0.912	0.939	0.953
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CONTROL: **Signalized**

COMMENT 1: **0**

GPS: **33.937076, -117.416856**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Jefferson St.
E-W STREET: Magnolia Ave.

Date: 03/03/16
Day: THURSDAY

City: Riverside
Project #: 16-1080-014

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	3	2	1	0
7:15 AM	2	1	1	4
7:30 AM	2	3	2	4
7:45 AM	13	6	9	8
8:00 AM	3	0	1	1
8:15 AM	2	0	1	0
8:30 AM	2	1	1	1
8:45 AM	2	1	1	2
TOTAL	29	14	17	20

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	1	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	1	0	0	0
8:00 AM	1	0	1	0
8:15 AM	0	0	0	0
8:30 AM	0	2	0	0
8:45 AM	2	1	0	0
TOTAL	4	4	1	0

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	3	2	3	3
4:15 PM	3	8	5	0
4:30 PM	3	0	0	0
4:45 PM	1	2	1	0
5:00 PM	1	2	0	3
5:15 PM	0	2	1	0
5:30 PM	0	3	0	0
5:45 PM	0	0	2	2
TOTAL	11	19	12	8

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	1	0	0
4:15 PM	0	1	1	0
4:30 PM	0	1	0	0
4:45 PM	0	0	0	0
5:00 PM	0	3	0	0
5:15 PM	0	1	1	0
5:30 PM	0	2	0	0
5:45 PM	0	0	0	0
TOTAL	0	9	2	0

North Leg

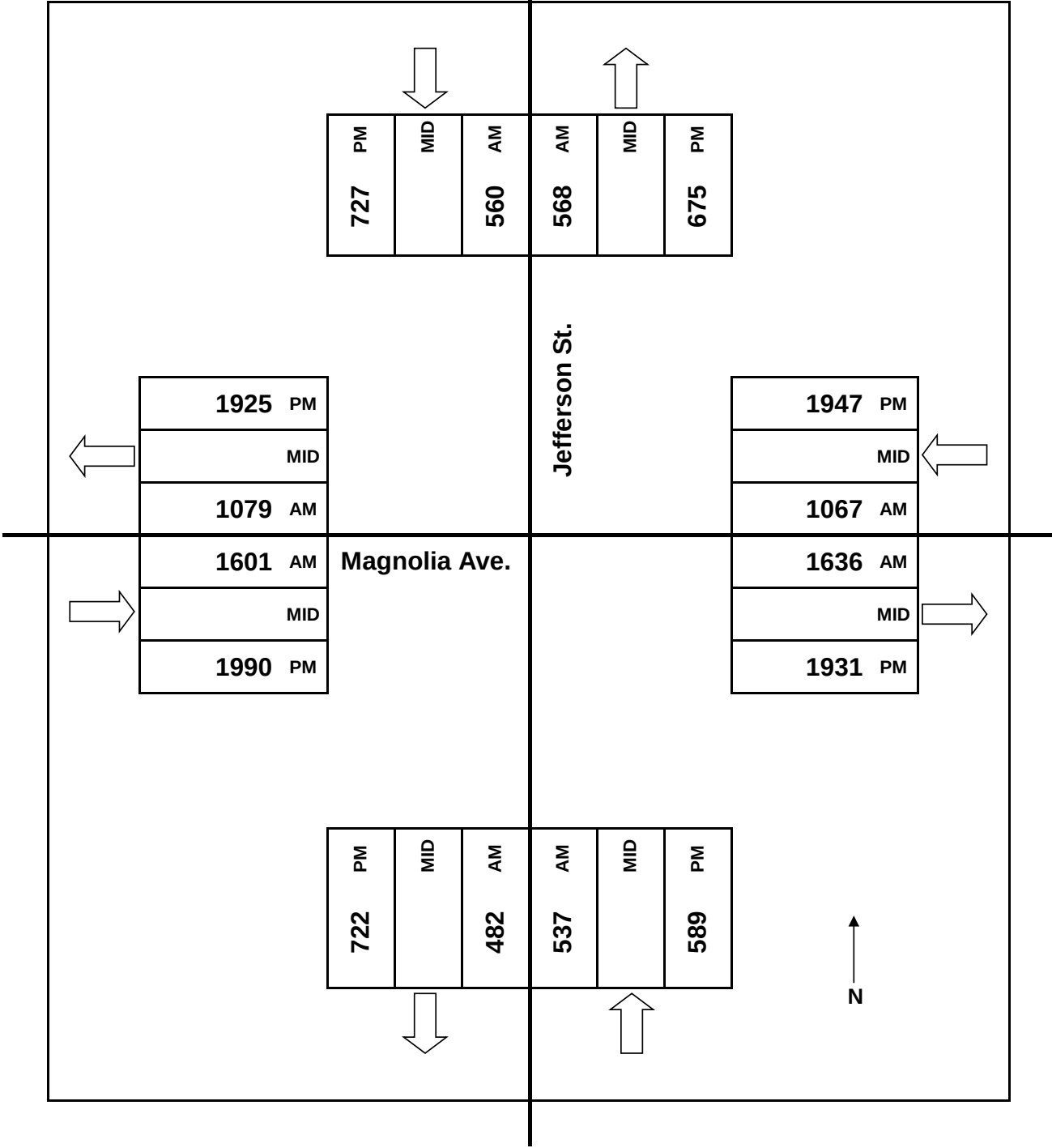
West Leg

East Leg

South Leg

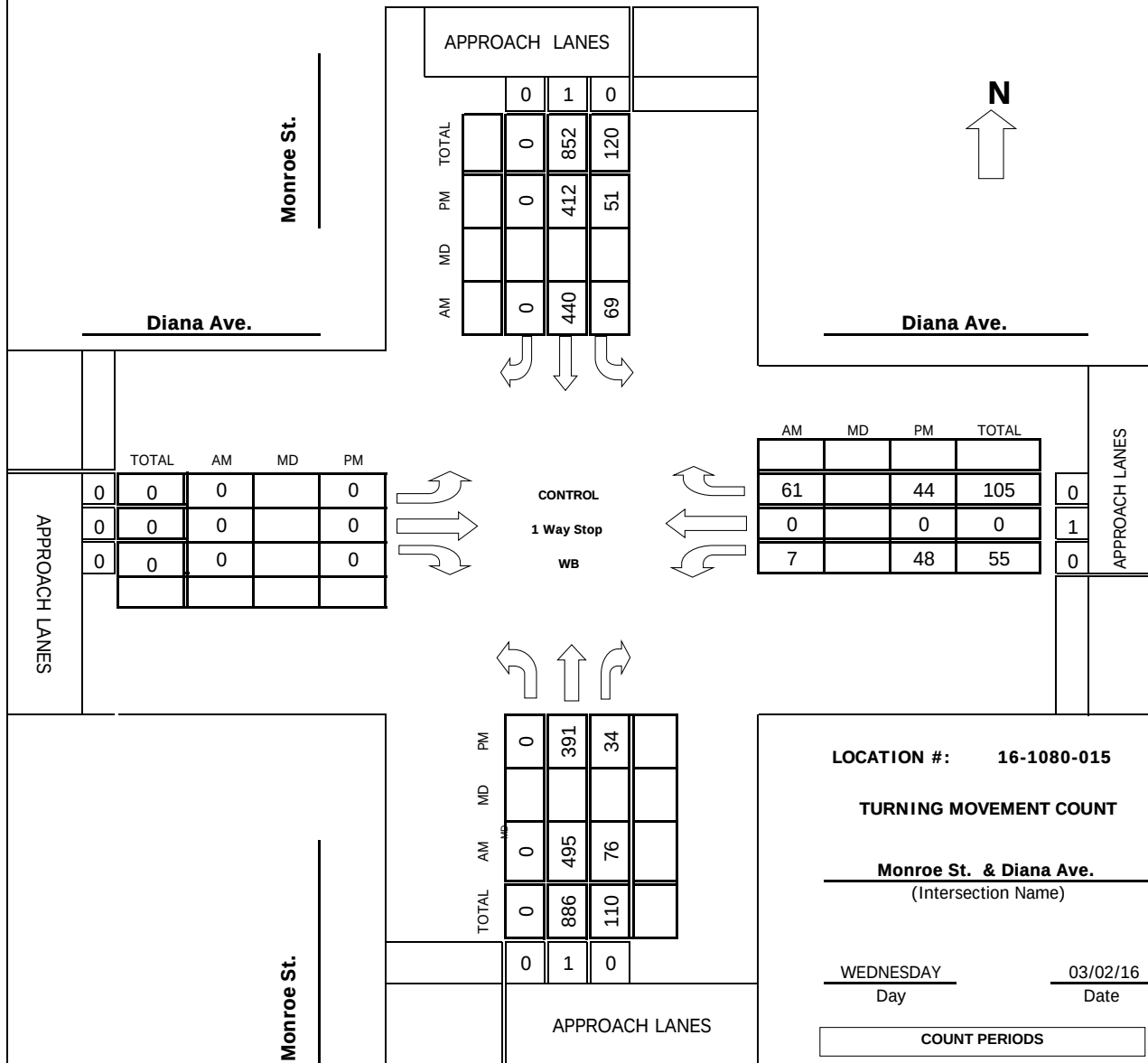
JOB# 16-1080-014
VALIDATED: _____

DATE: 03/03/16
DAY: THURSDAY



Project #: 16-1080-015

TMC SUMMARY OF Monroe St. & Diana Ave.



AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 445 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Monroe St.**

DATE: **03/02/16**

LOCATION: **Riverside**

E-W STREET: **Diana Ave.**

DAY: **WEDNESDAY**

PROJECT# **16-1080-015**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	0	1	0	0	0	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	79	16	14	44	0	0	0	0	1	0	8	162
7:15 AM	0	97	20	21	69	0	0	0	0	4	0	14	225
7:30 AM	0	135	21	20	88	0	0	0	0	1	0	10	275
7:45 AM	0	143	25	19	123	0	0	0	0	2	0	22	334
8:00 AM	0	109	14	16	115	0	0	0	0	3	0	19	276
8:15 AM	0	108	16	14	114	0	0	0	0	1	0	10	263
8:30 AM	0	56	13	10	77	0	0	0	0	1	0	11	168
8:45 AM	0	64	11	10	75	0	0	0	0	2	0	8	170
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	791	136	124	705	0	0	0	0	15	0	102	1873
Approach %	0.00	85.33	14.67	14.96	85.04	0.00	####	####	####	12.82	0.00	87.18	
App/Depart	927	/	893	829	/	720	0	/	260	117	/	0	

AM Peak Hr Begins at: 730 AM

PEAK

Volumes	0	495	76	69	440	0	0	0	0	7	0	61	1148
Approach %	0.00	86.69	13.31	13.56	86.44	0.00	####	####	####	10.29	0.00	89.71	

PEAK HR.

FACTOR:	0.850	0.896	0.000	0.708	0.859
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CONTROL: **1 Way Stop (WB)**

COMMENT 1:

GPS: **33.923541, -117.427270**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: **Monroe St.**

DATE: **03/02/16**

LOCATION: **Riverside**

E-W STREET: **Diana Ave.**

DAY: **WEDNESDAY**

PROJECT# **16-1080-015**

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	0	1	0	0	0	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	79	5	8	70	0	0	0	0	10	0	3	175
4:15 PM	0	70	4	11	95	0	0	0	0	11	0	6	197
4:30 PM	0	75	7	10	97	0	0	0	0	12	0	5	206
4:45 PM	0	97	10	14	111	0	0	0	0	14	0	14	260
5:00 PM	0	95	11	8	113	0	0	0	0	10	0	10	247
5:15 PM	0	99	9	16	90	0	0	0	0	11	0	11	236
5:30 PM	0	100	4	13	98	0	0	0	0	13	0	9	237
5:45 PM	0	97	5	8	79	0	0	0	0	16	0	9	214
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	712	55	88	753	0	0	0	0	97	0	67	1772
Approach %	0.00	92.83	7.17	10.46	89.54	0.00	####	####	####	59.15	0.00	40.85	
App/Depart	767	/	779	841	/	850	0	/	143	164	/	0	

PM Peak Hr Begins at: 445 PM

PEAK

Volumes	0	391	34	51	412	0	0	0	0	48	0	44	980
Approach %	0.00	92.00	8.00	11.02	88.98	0.00	####	####	####	52.17	0.00	47.83	

PEAK HR.

FACTOR:	0.984	0.926	0.000	0.821	0.942
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CONTROL: **1 Way Stop (WB)**

COMMENT 1: **0**

GPS: **33.923541, -117.427270**



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Monroe St.
E-W STREET: Diana Ave.

Date: 03/02/16
Day: WEDNESDAY

City: Riverside
Project #: 16-1080-015

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	2	1
7:15 AM	1	0	1	1
7:30 AM	0	0	0	1
7:45 AM	0	0	1	2
8:00 AM	0	0	2	3
8:15 AM	0	0	1	1
8:30 AM	0	0	1	2
8:45 AM	0	0	2	1
TOTAL	1	0	10	12

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	2	1
7:15 AM	0	0	1	1
7:30 AM	0	0	0	0
7:45 AM	0	0	1	2
8:00 AM	0	0	0	1
8:15 AM	0	0	1	0
8:30 AM	0	0	1	0
8:45 AM	0	0	0	1
TOTAL	0	0	6	6

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	1
4:15 PM	0	0	1	2
4:30 PM	0	0	1	0
4:45 PM	1	1	2	1
5:00 PM	1	0	1	2
5:15 PM	0	0	0	1
5:30 PM	0	0	1	1
5:45 PM	0	0	0	0
TOTAL	2	1	6	8

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	2	2
4:15 PM	0	0	3	0
4:30 PM	0	0	1	1
4:45 PM	0	0	0	0
5:00 PM	0	0	2	1
5:15 PM	0	0	1	1
5:30 PM	0	0	0	0
5:45 PM	0	0	1	1
TOTAL	0	0	10	6

North Leg

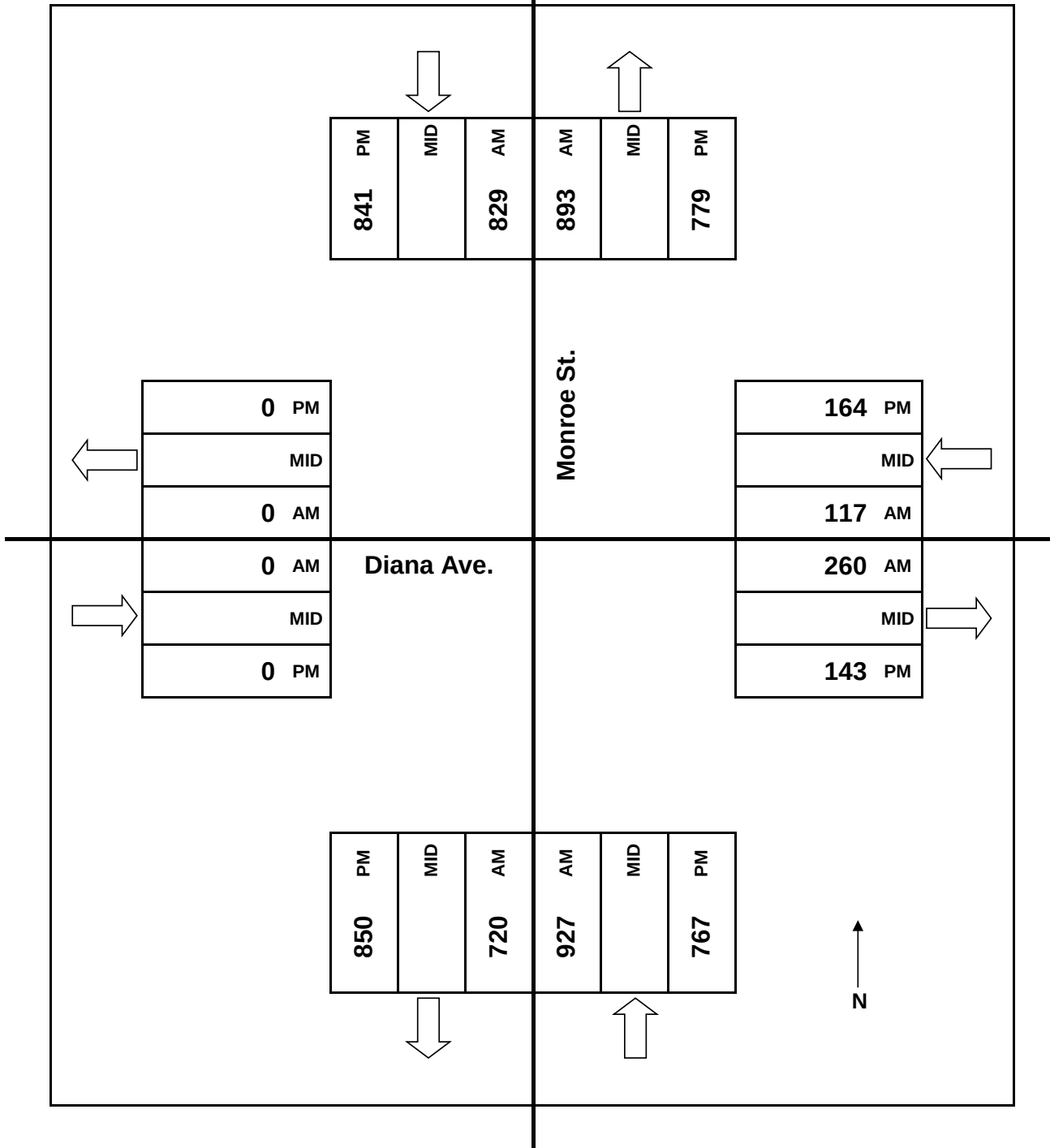
West Leg

East Leg

South Leg

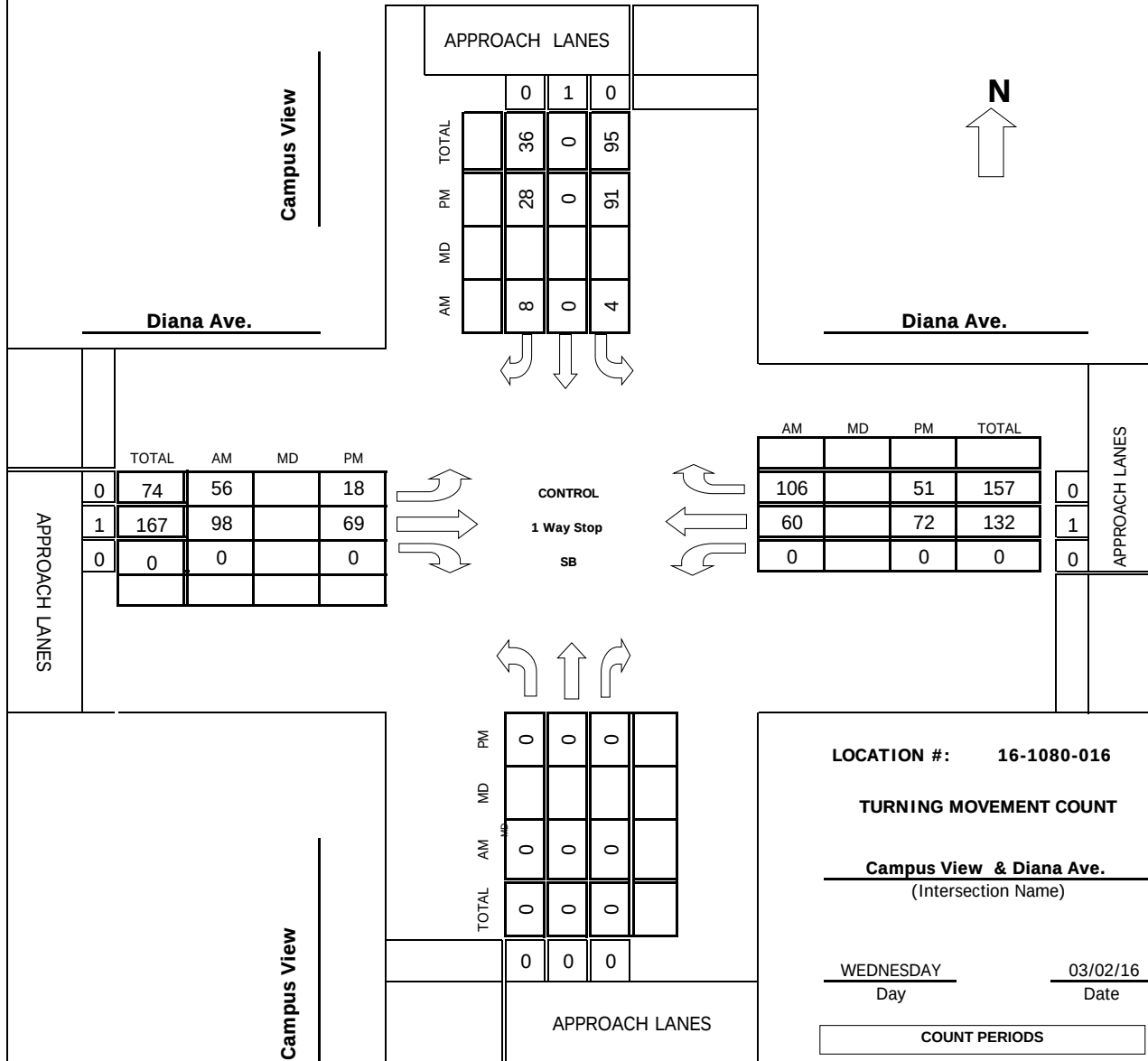
JOB# 16-1080-015
VALIDATED: _____

DATE: 03/02/16
DAY: WEDNESDAY



Project #: 16-1080-016

TMC SUMMARY OF Campus View & Diana Ave.



AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 415 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Campus View

DATE: 03/02/16

LOCATION: Riverside

E-W STREET: Diana Ave.

DAY: WEDNESDAY

PROJECT# 16-1080-016

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	0	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	2	0	1	4	13	0	0	10	14	44
7:15 AM	0	0	0	1	0	1	6	14	0	0	13	21	56
7:30 AM	0	0	0	0	0	2	9	21	0	0	10	20	62
7:45 AM	0	0	0	1	0	3	11	25	0	0	16	33	89
8:00 AM	0	0	0	2	0	1	22	24	0	0	15	29	93
8:15 AM	0	0	0	1	0	2	14	28	0	0	19	24	88
8:30 AM	0	0	0	4	0	1	9	11	0	0	14	20	59
8:45 AM	0	0	0	1	0	1	6	13	0	0	15	19	55
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	12	0	12	81	149	0	0	112	180	546
Approach %	####	####	####	50.00	0.00	50.00	35.22	64.78	0.00	0.00	38.36	61.64	
App/Depart	0	/	261	24	/	0	230	/	161	292	/	124	

AM Peak Hr Begins at: 730 AM

PEAK

Volumes	0	0	0	4	0	8	56	98	0	0	60	106	332
Approach %	####	####	####	33.33	0.00	66.67	36.36	63.64	0.00	0.00	36.14	63.86	

PEAK HR.

FACTOR:	0.000	0.750	0.837	0.847	0.892
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CONTROL: 1 Way Stop (SB)

COMMENT 1:

GPS: 33.925499, -117.423692



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Campus View

DATE: 03/02/16

LOCATION: Riverside

E-W STREET: Diana Ave.

DAY: WEDNESDAY

PROJECT# 16-1080-016

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	0	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	0	0	11	0	2	11	13	0	0	13	13	63
4:15 PM	0	0	0	19	0	4	7	16	0	0	18	16	80
4:30 PM	0	0	0	20	0	7	4	14	0	0	22	14	81
4:45 PM	0	0	0	24	0	11	5	20	0	0	14	10	84
5:00 PM	0	0	0	28	0	6	2	19	0	0	18	11	84
5:15 PM	0	0	0	14	0	9	6	14	0	0	20	8	71
5:30 PM	0	0	0	16	0	5	3	20	0	0	21	13	78
5:45 PM	0	0	0	13	0	8	5	19	0	0	14	19	78
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	145	0	52	43	135	0	0	140	104	619
Approach %	####	####	####	73.60	0.00	26.40	24.16	75.84	0.00	0.00	57.38	42.62	
App/Depart	0	/	147	197	/	0	178	/	280	244	/	192	

PM Peak Hr Begins at: 415 PM

PEAK

Volumes	0	0	0	91	0	28	18	69	0	0	72	51	329
Approach %	####	####	####	76.47	0.00	23.53	20.69	79.31	0.00	0.00	58.54	41.46	

PEAK HR.

FACTOR:	0.000	0.850	0.870	0.854	0.979
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CONTROL: 1 Way Stop (SB)

COMMENT 1: 0

GPS: 33.925499, -117.423692



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Campus View
E-W STREET: Diana Ave.

Date: 03/02/16
Day: WEDNESDAY

City: Riverside
Project #: 16-1080-016

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	1	0	0	0
7:15 AM	2	0	0	0
7:30 AM	0	0	0	0
7:45 AM	1	0	0	0
8:00 AM	2	0	0	0
8:15 AM	1	0	0	0
8:30 AM	3	0	0	0
8:45 AM	2	0	0	0
TOTAL	12	0	0	0

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	1	0	0	0
7:30 AM	1	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	1	0	0	0
8:30 AM	2	0	0	0
8:45 AM	0	0	0	0
TOTAL	5	0	0	0

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	1	0	0	0
4:15 PM	2	0	0	0
4:30 PM	1	0	0	0
4:45 PM	4	0	0	0
5:00 PM	1	0	0	0
5:15 PM	2	0	0	0
5:30 PM	1	0	0	0
5:45 PM	0	0	0	0
TOTAL	12	0	0	0

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	1	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	1	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	1	0	0	0
TOTAL	3	0	0	0

North Leg

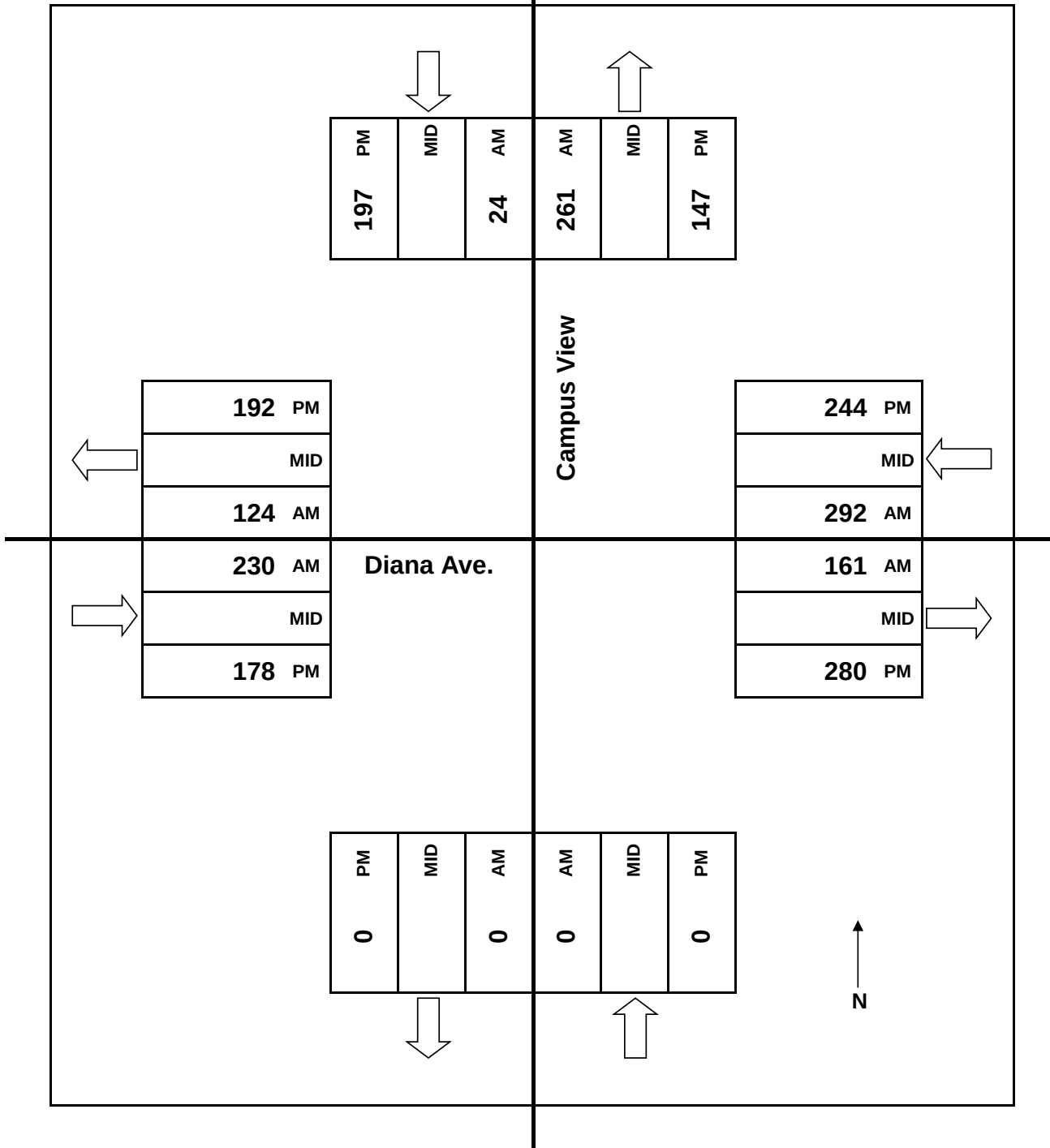
West Leg

East Leg

South Leg

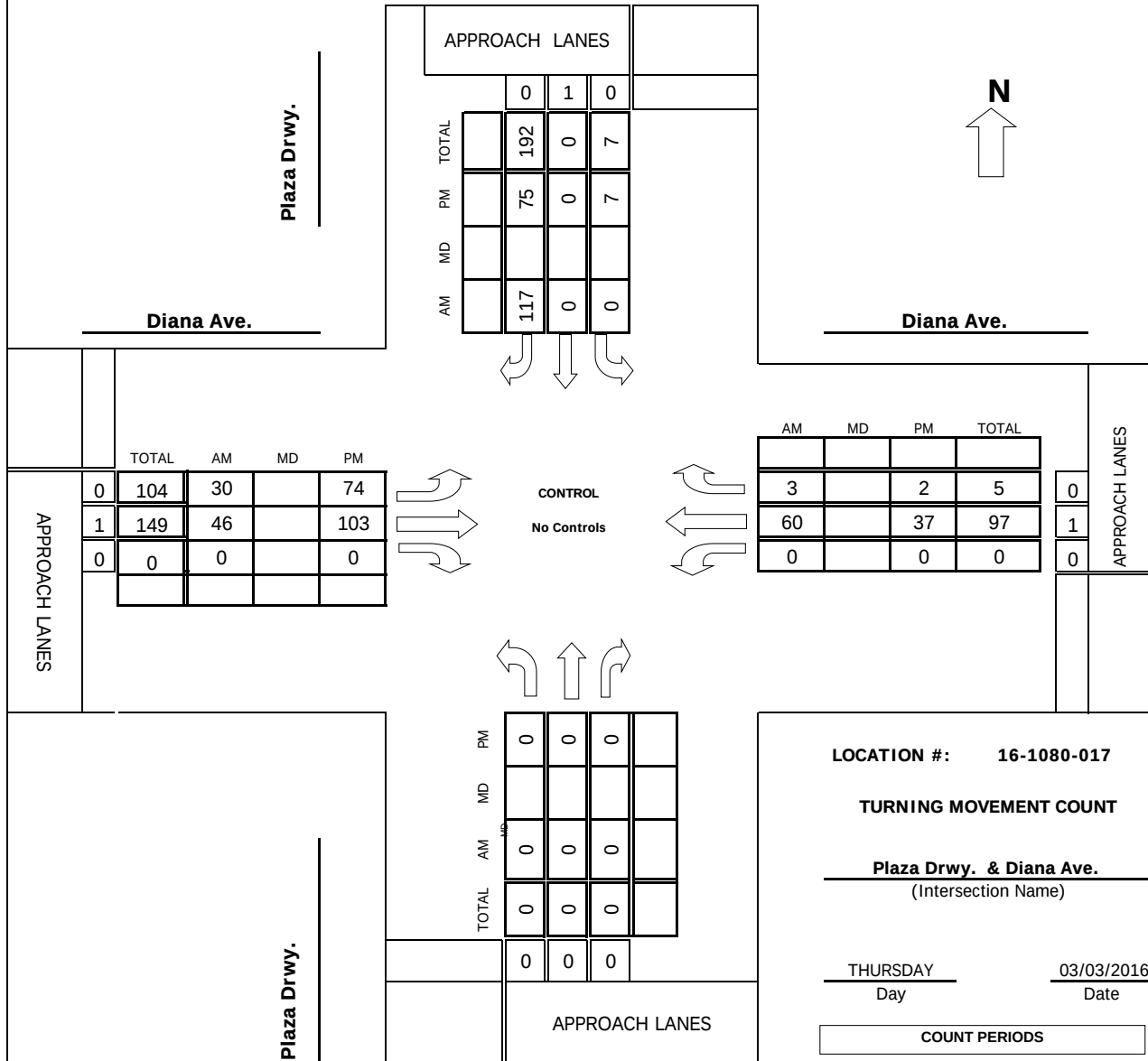
JOB# 16-1080-016
VALIDATED: _____

DATE: 03/02/16
DAY: WEDNESDAY



Project #: 16-1080-017

TMC SUMMARY OF Plaza Drwy. & Diana Ave.



AM PEAK HOUR 800 AM

NOON PEAK HOUR

PM PEAK HOUR 445 PM



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Plaza Drwy.

DATE: 03/03/2016

LOCATION: Riverside

E-W STREET: Diana Ave.

DAY: THURSDAY

PROJECT# 16-1080-017

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	0	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	0	17	4	16	0	0	12	0	49
7:15 AM	0	0	0	0	0	9	5	8	0	0	10	0	32
7:30 AM	0	0	0	0	0	17	8	17	0	0	17	0	59
7:45 AM	0	0	0	0	0	26	2	8	0	0	11	0	47
8:00 AM	0	0	0	0	0	29	5	13	0	0	10	0	57
8:15 AM	0	0	0	0	0	24	4	9	0	0	15	0	52
8:30 AM	0	0	0	0	0	45	13	13	0	0	19	2	92
8:45 AM	0	0	0	0	0	19	8	11	0	0	16	1	55
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	0	0	186	49	95	0	0	110	3	443
Approach %	####	####	####	0.00	0.00	100.00	34.03	65.97	0.00	0.00	97.35	2.65	
App/Depart	0	/	52	186	/	0	144	/	95	113	/	296	

AM Peak Hr Begins at: 800 AM

PEAK

Volumes	0	0	0	0	0	117	30	46	0	0	60	3	256
Approach %	####	####	####	0.00	0.00	100.00	39.47	60.53	0.00	0.00	95.24	4.76	

PEAK HR.

FACTOR:	0.000	0.650	0.731	0.750	0.696
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CONTROL: No Controls

COMMENT 1:

GPS: 33.926663, -117.421813



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Plaza Drwy.

DATE: 03/03/2016

LOCATION: Riverside

E-W STREET: Diana Ave.

DAY: THURSDAY

PROJECT# 16-1080-017

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	0	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	0	0	1	0	10	16	9	0	0	13	0	49
4:15 PM	0	0	0	2	0	19	13	10	0	0	6	0	50
4:30 PM	0	0	0	0	0	18	17	28	0	0	7	0	70
4:45 PM	0	0	0	3	0	21	17	17	0	0	15	1	74
5:00 PM	0	0	0	1	0	23	26	32	0	0	4	0	86
5:15 PM	0	0	0	1	0	13	14	31	0	0	7	0	66
5:30 PM	0	0	0	2	0	18	17	23	0	0	11	1	72
5:45 PM	0	0	0	2	0	22	10	11	0	0	7	0	52
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	12	0	144	130	161	0	0	70	2	519
Approach %	####	####	####	7.69	0.00	92.31	44.67	55.33	0.00	0.00	97.22	2.78	
App/Depart	0	/	132	156	/	0	291	/	173	72	/	214	

PM Peak Hr Begins at: 445 PM

PEAK

Volumes	0	0	0	7	0	75	74	103	0	0	37	2	298
Approach %	####	####	####	8.54	0.00	91.46	41.81	58.19	0.00	0.00	94.87	5.13	

PEAK HR.

FACTOR:	0.000	0.854	0.763	0.609	0.866
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CONTROL: No Controls

COMMENT 1: 0

GPS: 33.926663, -117.421813



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Plaza Drwy.
E-W STREET: Diana Ave.

Date: 03/03/2016
Day: THURSDAY

City: Riverside
Project #: 16-1080-017

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	2	0
7:15 AM	0	0	3	0
7:30 AM	0	0	1	0
7:45 AM	0	0	3	0
8:00 AM	0	0	0	0
8:15 AM	0	0	1	0
8:30 AM	0	0	2	0
8:45 AM	0	0	1	0
TOTAL	0	0	13	0

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	1	0
5:15 PM	0	0	0	0
5:30 PM	0	0	3	0
5:45 PM	0	0	0	0
TOTAL	0	0	4	0

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	0	0	0	0

North Leg

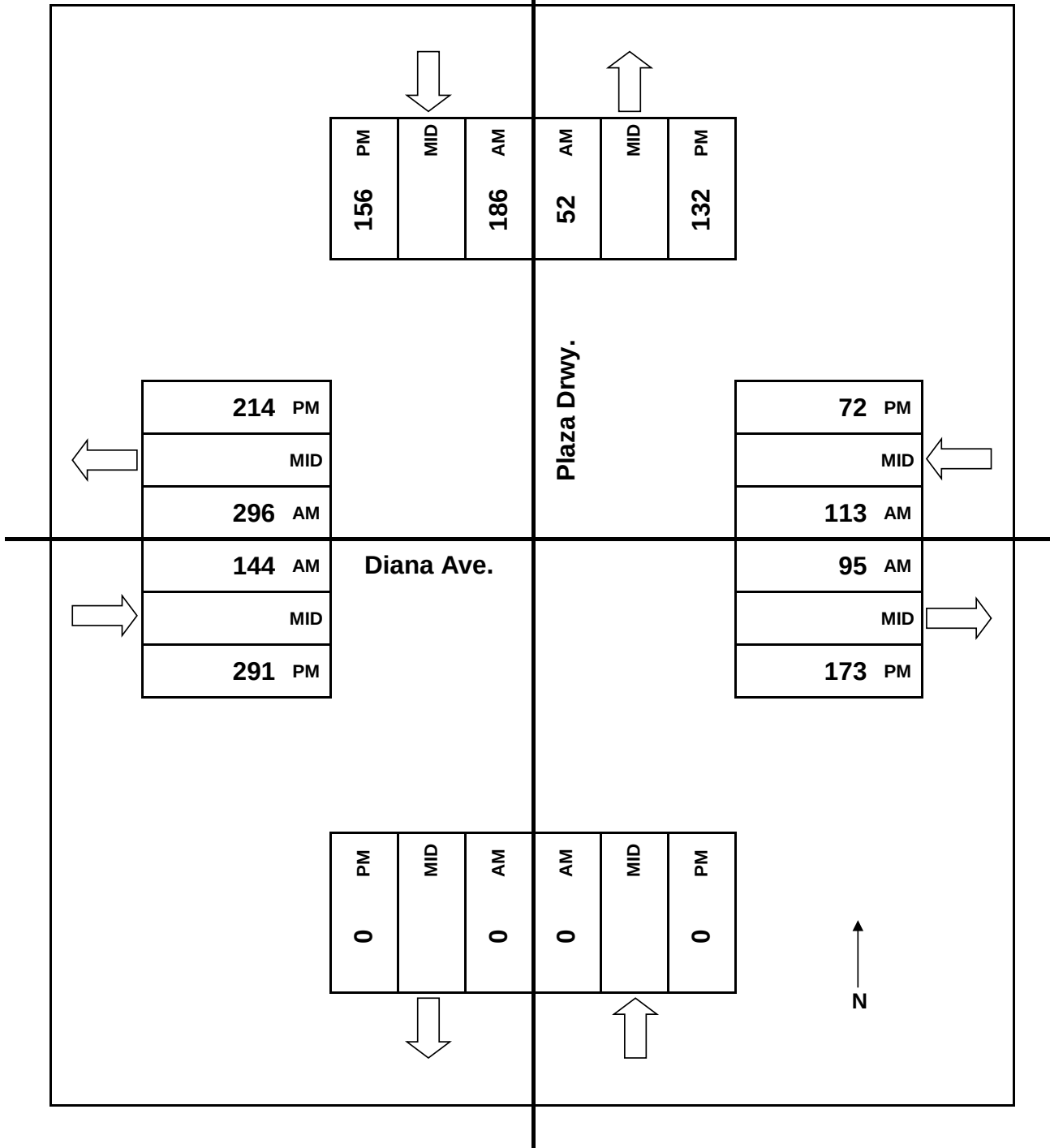
West Leg

East Leg

South Leg

JOB# 16-1080-017
VALIDATED: _____

DATE: 03/03/2016
DAY: THURSDAY



Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-001

Location: Adams St. btwn. California Ave. & Garfield St.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	40	33			12:00	96	122		
00:15	43	35			12:15	112	114		
00:30	42	29			12:30	112	141		
00:45	29	154	18	115	12:45	119	439	116	493
01:00	22	15			13:00	128	123		
01:15	19	14			13:15	124	126		
01:30	23	12			13:30	123	115		
01:45	21	85	16	57	13:45	123	498	127	491
02:00	17	11			14:00	129	112		
02:15	9	4			14:15	140	117		
02:30	16	15			14:30	136	142		
02:45	12	54	5	35	14:45	163	568	113	484
03:00	10	8			15:00	154	130		
03:15	6	11			15:15	157	134		
03:30	5	13			15:30	179	141		
03:45	11	32	10	42	15:45	159	649	187	592
04:00	14	9			16:00	198	189		
04:15	1	13			16:15	172	178		
04:30	14	21			16:30	155	158		
04:45	15	44	36	79	16:45	163	688	145	670
05:00	22	49			17:00	180	150		
05:15	17	71			17:15	187	136		
05:30	23	77			17:30	162	155		
05:45	23	85	70	267	17:45	171	700	132	573
06:00	44	79			18:00	160	184		
06:15	38	74			18:15	187	143		
06:30	32	96			18:30	186	151		
06:45	56	170	86	335	18:45	183	716	148	626
07:00	98	111			19:00	158	132		
07:15	126	134			19:15	173	120		
07:30	106	169			19:30	171	124		
07:45	128	458	166	580	19:45	142	644	116	492
08:00	142	153			20:00	126	88		
08:15	167	174			20:15	110	105		
08:30	230	221			20:30	115	78		
08:45	283	822	215	763	20:45	124	475	73	344
09:00	172	192			21:00	106	96		
09:15	138	154			21:15	100	87		
09:30	118	141			21:30	83	84		
09:45	138	566	112	599	21:45	100	389	71	338
10:00	116	122			22:00	93	75		
10:15	113	113			22:15	93	71		
10:30	96	108			22:30	74	74		
10:45	119	444	105	448	22:45	67	327	49	269
11:00	97	100			23:00	52	43		
11:15	117	121			23:15	47	47		
11:30	134	123			23:30	35	39		
11:45	110	458	102	446	23:45	52	186	27	156

Total Vol. 3372 3766 **7138** 6279 5528 **11807**

GPS Coordinates:

				Daily Totals			
				NB	SB	EB	WB
				9651	9294		
				18945			
AM				PM			
Split %	47.2%	52.8%	37.7%	53.2%	46.8%		62.3%
Peak Hour	08:15	08:15	08:15	18:00	15:45		15:30
Volume	852	802	1654	716	712		1403
P.H.F.	0.75	0.91	0.83	0.96	0.94		0.91

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-002

Location: Adams St. btwn. Garfield St. & Magnolia Ave.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	31	34			12:00	117	129		
00:15	31	31			12:15	112	114		
00:30	25	31			12:30	120	147		
00:45	17	104	20	116	12:45	132	481	128	518
01:00	18	16			13:00	140	140		
01:15	13	13			13:15	129	128		
01:30	13	13			13:30	128	124		
01:45	17	61	16	58	13:45	124	521	136	528
02:00	14	14			14:00	138	120		
02:15	8	7			14:15	151	131		
02:30	14	13			14:30	141	156		
02:45	6	42	7	41	14:45	154	584	127	534
03:00	7	10			15:00	167	141		
03:15	3	12			15:15	155	137		
03:30	3	13			15:30	177	163		
03:45	6	19	13	48	15:45	138	637	218	659
04:00	11	11			16:00	194	182		
04:15	1	15			16:15	171	194		
04:30	10	26			16:30	182	170		
04:45	19	41	41	93	16:45	162	709	152	698
05:00	17	53			17:00	180	157		
05:15	21	86			17:15	196	129		
05:30	42	87			17:30	178	158		
05:45	41	121	84	310	17:45	174	728	127	571
06:00	54	79			18:00	177	191		
06:15	35	86			18:15	183	155		
06:30	33	106			18:30	194	175		
06:45	59	181	100	371	18:45	176	730	160	681
07:00	132	116			19:00	160	146		
07:15	137	149			19:15	176	117		
07:30	132	179			19:30	173	132		
07:45	147	548	183	627	19:45	164	673	131	526
08:00	145	157			20:00	127	97		
08:15	170	195			20:15	107	109		
08:30	226	251			20:30	103	91		
08:45	268	809	265	868	20:45	120	457	83	380
09:00	205	225			21:00	105	100		
09:15	143	197			21:15	102	88		
09:30	139	154			21:30	99	90		
09:45	133	620	134	710	21:45	111	417	101	379
10:00	104	134			22:00	104	81		
10:15	108	119			22:15	112	70		
10:30	111	117			22:30	96	76		
10:45	114	437	118	488	22:45	89	401	54	281
11:00	136	109			23:00	53	45		
11:15	133	130			23:15	47	46		
11:30	128	138			23:30	46	38		
11:45	124	521	115	492	23:45	55	201	23	152

Total Vol. 3504 4222 **7726** 6539 5907 **12446**

GPS Coordinates:

				Daily Totals	
				NB	SB
				EB	WB
				10043	10129
				20172	

AM				PM		
Split %	45.4%	54.6%	38.3%	52.5%	47.5%	61.7%
Peak Hour	08:15	08:30	08:15	18:00	15:45	15:45
Volume	869	938	1805	730	764	1449
P.H.F.	0.81	0.88	0.85	0.94	0.88	0.96

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-003

Location: Adams St. btwn. Magnolia Ave. & Lancer Ln./Briarwood Dr.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	70	65			12:00	171	150		
00:15	58	39			12:15	169	164		
00:30	52	55			12:30	173	184		
00:45	41	221	34	193	12:45	203	716	190	688
01:00	31	38			13:00	209	205		
01:15	38	24			13:15	182	219		
01:30	34	21			13:30	182	180		
01:45	29	132	21	104	13:45	158	731	184	788
02:00	20	18			14:00	185	175		
02:15	10	15			14:15	211	202		
02:30	23	19			14:30	227	211		
02:45	16	69	7	59	14:45	249	872	208	796
03:00	20	14			15:00	221	198		
03:15	10	16			15:15	241	191		
03:30	10	15			15:30	246	190		
03:45	14	54	17	62	15:45	229	937	245	824
04:00	20	13			16:00	264	256		
04:15	4	19			16:15	239	275		
04:30	17	35			16:30	281	247		
04:45	24	65	41	108	16:45	258	1042	212	990
05:00	22	59			17:00	279	218		
05:15	23	91			17:15	266	208		
05:30	23	90			17:30	260	237		
05:45	31	99	96	336	17:45	268	1073	205	868
06:00	50	91			18:00	259	248		
06:15	99	100			18:15	273	208		
06:30	102	124			18:30	243	216		
06:45	158	409	112	427	18:45	258	1033	179	851
07:00	172	124			19:00	215	218		
07:15	223	167			19:15	255	199		
07:30	203	192			19:30	235	222		
07:45	266	864	206	689	19:45	202	907	206	845
08:00	270	186			20:00	186	192		
08:15	312	228			20:15	147	177		
08:30	366	246			20:30	139	171		
08:45	375	1323	279	939	20:45	142	614	148	688
09:00	274	206			21:00	105	186		
09:15	273	202			21:15	129	164		
09:30	273	175			21:30	93	163		
09:45	247	1067	140	723	21:45	107	434	190	703
10:00	172	146			22:00	93	158		
10:15	150	136			22:15	98	150		
10:30	158	146			22:30	77	166		
10:45	188	668	129	557	22:45	89	357	118	592
11:00	199	140			23:00	81	103		
11:15	193	176			23:15	60	62		
11:30	217	167			23:30	57	55		
11:45	167	776	134	617	23:45	81	279	40	260

Total Vol. 5747 4814 **10561** 8995 8893 **17888**

GPS Coordinates:

				Daily Totals	
				NB	SB
				EB	WB
				14742	13707
				28449	

AM				PM		
Split %	54.4%	45.6%	37.1%	50.3%	49.7%	62.9%
Peak Hour	08:15	08:15	08:15	16:30	15:45	15:45
Volume	1327	959	2286	1084	1023	2036
P.H.F.	0.88	0.86	0.87	0.96	0.93	0.96

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-004

Location: Adams St. btwn. Lancer Ln./Briarwood Dr. & Diana Ave.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	55	39			12:00	171	174		
00:15	60	33			12:15	155	185		
00:30	46	30			12:30	163	181		
00:45	38	199	54	156	12:45	194	683	214	754
01:00	29	41			13:00	186	236		
01:15	39	42			13:15	165	258		
01:30	34	28			13:30	169	222		
01:45	28	130	24	135	13:45	157	677	208	924
02:00	21	21			14:00	179	214		
02:15	11	14			14:15	195	185		
02:30	21	16			14:30	229	199		
02:45	16	69	13	64	14:45	237	840	209	807
03:00	19	11			15:00	211	236		
03:15	7	10			15:15	228	222		
03:30	10	14			15:30	227	208		
03:45	16	52	18	53	15:45	222	888	241	907
04:00	16	20			16:00	224	243		
04:15	4	24			16:15	221	262		
04:30	18	29			16:30	257	259		
04:45	21	59	33	106	16:45	210	912	230	994
05:00	22	54			17:00	238	224		
05:15	25	85			17:15	230	218		
05:30	21	89			17:30	221	199		
05:45	32	100	90	318	17:45	239	928	170	811
06:00	53	99			18:00	241	244		
06:15	40	123			18:15	273	239		
06:30	52	131			18:30	245	214		
06:45	85	230	128	481	18:45	235	994	185	882
07:00	153	124			19:00	243	186		
07:15	191	152			19:15	270	189		
07:30	176	196			19:30	254	177		
07:45	250	770	214	686	19:45	219	986	175	727
08:00	247	222			20:00	190	200		
08:15	281	252			20:15	147	169		
08:30	336	245			20:30	158	181		
08:45	350	1214	252	971	20:45	160	655	138	688
09:00	279	217			21:00	137	175		
09:15	271	196			21:15	150	156		
09:30	273	199			21:30	120	151		
09:45	239	1062	166	778	21:45	132	539	144	626
10:00	174	139			22:00	120	137		
10:15	146	133			22:15	126	133		
10:30	164	131			22:30	108	129		
10:45	176	660	128	531	22:45	108	462	110	509
11:00	192	145			23:00	88	94		
11:15	181	152			23:15	63	85		
11:30	203	159			23:30	66	60		
11:45	159	735	139	595	23:45	89	306	65	304

Total Vol.	5280	4874	10154	8870	8933	17803
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GPS Coordinates:

				Daily Totals			
				NB	SB	EB	WB
				14150	13807		
				27957			
AM				PM			
Split %	52.0%	48.0%	36.3 %	49.8%	50.2%	63.7 %	
Peak Hour	08:15	08:00	08:15	18:45	15:45	15:45	
Volume	1246	971	2212	1002	1005	1929	
P.H.F.	0.89	0.96	0.92	0.93	0.96	0.93	

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-005

Location: Adams St. btwn. SR-91 WB Ramps & SR-91 EB Ramps

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	49	41			12:00	169	169		
00:15	55	43			12:15	163	181		
00:30	50	39			12:30	166	185		
00:45	54	208	33	156	12:45	185	683	214	749
01:00	28	30			13:00	188	236		
01:15	24	35			13:15	187	255		
01:30	29	54			13:30	175	241		
01:45	30	111	45	164	13:45	196	746	245	977
02:00	32	50			14:00	199	239		
02:15	28	28			14:15	214	222		
02:30	24	24			14:30	228	214		
02:45	21	105	29	131	14:45	252	893	210	885
03:00	14	20			15:00	256	233		
03:15	16	21			15:15	258	232		
03:30	13	14			15:30	244	258		
03:45	19	62	19	74	15:45	275	1033	244	967
04:00	16	16			16:00	285	230		
04:15	17	20			16:15	266	243		
04:30	18	24			16:30	263	237		
04:45	20	71	41	101	16:45	239	1053	248	958
05:00	24	45			17:00	241	199		
05:15	28	85			17:15	241	170		
05:30	26	89			17:30	239	181		
05:45	33	111	99	318	17:45	233	954	184	734
06:00	63	128			18:00	230	218		
06:15	66	133			18:15	210	221		
06:30	60	131			18:30	228	195		
06:45	87	276	128	520	18:45	241	909	192	826
07:00	133	144			19:00	236	187		
07:15	161	175			19:15	258	185		
07:30	211	186			19:30	242	196		
07:45	228	733	189	694	19:45	214	950	166	734
08:00	222	204			20:00	185	154		
08:15	233	248			20:15	177	147		
08:30	292	234			20:30	141	141		
08:45	295	1042	235	921	20:45	143	646	128	570
09:00	258	214			21:00	139	133		
09:15	277	185			21:15	133	130		
09:30	278	196			21:30	120	128		
09:45	285	1098	192	787	21:45	100	492	124	515
10:00	196	143			22:00	85	141		
10:15	166	139			22:15	96	122		
10:30	161	133			22:30	99	104		
10:45	154	677	121	536	22:45	90	370	85	452
11:00	178	145			23:00	87	60		
11:15	182	152			23:15	75	65		
11:30	214	159			23:30	77	55		
11:45	209	783	163	619	23:45	76	315	50	230

Total Vol.	5277	5021	10298	9044	8597	17641
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GPS Coordinates:

				Daily Totals		
				NB	SB	EB
				WB	Combined	
				14321	13618	27939
AM				PM		
Split %	51.2%	48.8%	36.9%	51.3%	48.7%	63.1%
Peak Hour	08:30	08:15	08:15	15:45	13:15	15:30
Volume	1122	931	2009	1089	980	2045
P.H.F.	0.95	0.94	0.95	0.96	0.96	0.99

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-006

Location: Adams St. btwn. SR-91 EB Ramps & Indiana Ave.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	39	33			12:00	178	178		
00:15	33	28			12:15	185	181		
00:30	30	24			12:30	166	185		
00:45	35	137	28	113	12:45	187	716	196	740
01:00	32	29			13:00	185	214		
01:15	28	30			13:15	182	244		
01:30	24	32			13:30	199	245		
01:45	29	113	54	145	13:45	199	765	258	961
02:00	20	41			14:00	175	263		
02:15	21	42			14:15	199	239		
02:30	14	28			14:30	214	214		
02:45	19	74	24	135	14:45	258	846	241	957
03:00	13	41			15:00	255	245		
03:15	11	42			15:15	263	258		
03:30	10	21			15:30	299	252		
03:45	14	48	14	118	15:45	285	1102	263	1018
04:00	18	19			16:00	243	239		
04:15	16	16			16:15	217	244		
04:30	18	20			16:30	228	245		
04:45	20	72	24	79	16:45	179	867	241	969
05:00	24	41			17:00	207	185		
05:15	25	75			17:15	201	196		
05:30	28	78			17:30	187	199		
05:45	29	106	80	274	17:45	193	788	177	757
06:00	75	136			18:00	241	185		
06:15	69	133			18:15	214	214		
06:30	66	131			18:30	185	185		
06:45	87	297	125	525	18:45	214	854	166	750
07:00	93	190			19:00	236	163		
07:15	146	220			19:15	222	154		
07:30	105	214			19:30	208	175		
07:45	164	508	220	844	19:45	214	880	152	644
08:00	202	249			20:00	185	152		
08:15	203	257			20:15	163	147		
08:30	239	271			20:30	139	141		
08:45	239	883	293	1070	20:45	130	617	143	583
09:00	248	244			21:00	128	139		
09:15	277	214			21:15	104	130		
09:30	278	185			21:30	85	128		
09:45	285	1088	199	842	21:45	60	377	124	521
10:00	214	166			22:00	65	104		
10:15	185	154			22:15	58	108		
10:30	196	147			22:30	54	96		
10:45	199	794	141	608	22:45	75	252	99	407
11:00	163	145			23:00	50	60		
11:15	154	152			23:15	54	65		
11:30	178	159			23:30	75	58		
11:45	214	709	199	655	23:45	50	229	54	237

Total Vol.	4829	5408	10237	8293	8544	16837
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GPS Coordinates:

				Daily Totals		
	NB	SB	EB	WB	Combined	
	13122	13952			27074	

AM				PM		
Split %	47.2%	52.8%	37.8 %	49.3%	50.7%	62.2 %
Peak Hour	09:00	08:00	08:30	15:00	15:00	15:00
Volume	1088	1070	2025	1102	1018	2120
P.H.F.	0.95	0.91	0.95	0.92	0.97	0.96

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-007

Location: Adams St. btwn. Indiana Ave. & Lincoln Ave.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	6	10			12:00	98	124		
00:15	7	22			12:15	100	86		
00:30	14	12			12:30	105	105		
00:45	10	37	15	59	12:45	111	414	114	429
01:00	17	14			13:00	129	117		
01:15	13	8			13:15	119	125		
01:30	15	6			13:30	92	99		
01:45	6	51	7	35	13:45	129	469	112	453
02:00	8	7			14:00	106	103		
02:15	2	5			14:15	113	105		
02:30	8	13			14:30	153	127		
02:45	4	22	2	27	14:45	109	481	108	443
03:00	9	2			15:00	142	105		
03:15	3	4			15:15	157	115		
03:30	4	2			15:30	153	115		
03:45	5	21	7	15	15:45	161	613	109	444
04:00	10	5			16:00	153	149		
04:15	4	3			16:15	163	127		
04:30	15	10			16:30	156	133		
04:45	10	39	9	27	16:45	151	623	118	527
05:00	18	10			17:00	147	191		
05:15	19	10			17:15	139	167		
05:30	16	13			17:30	138	128		
05:45	26	79	15	48	17:45	146	570	134	620
06:00	25	21			18:00	180	185		
06:15	25	29			18:15	143	133		
06:30	31	40			18:30	116	117		
06:45	42	123	78	168	18:45	114	553	126	561
07:00	58	54			19:00	123	118		
07:15	60	85			19:15	120	111		
07:30	84	110			19:30	98	71		
07:45	114	316	129	378	19:45	86	427	56	356
08:00	105	141			20:00	83	82		
08:15	149	155			20:15	67	51		
08:30	165	150			20:30	47	52		
08:45	135	554	144	590	20:45	43	240	29	214
09:00	211	214			21:00	69	61		
09:15	150	169			21:15	45	42		
09:30	112	162			21:30	61	27		
09:45	135	608	181	726	21:45	58	233	37	167
10:00	89	136			22:00	60	50		
10:15	111	130			22:15	34	27		
10:30	101	118			22:30	47	34		
10:45	101	402	109	493	22:45	28	169	23	134
11:00	110	115			23:00	30	24		
11:15	103	101			23:15	20	15		
11:30	100	90			23:30	31	16		
11:45	96	409	93	399	23:45	8	89	16	71

Total Vol.	2661	2965	5626	4881	4419	9300
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GPS Coordinates:

				Daily Totals		
				NB	SB	EB
				7542	7384	14926

AM				PM		
Split %	47.3%	52.7%	37.7%	52.5%	47.5%	62.3%
Peak Hour	08:30	09:00	08:30	15:45	17:00	17:15
Volume	661	726	1338	633	620	1217
P.H.F.	0.78	0.85	0.79	0.97	0.81	0.83

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-008

Location: Magnolia Ave. btwn. Jackson St. & Overland St.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			48	39	12:00			169	198
00:15			32	35	12:15			196	201
00:30			30	30	12:30			182	190
00:45			31	141	12:45			185	732
01:00			31	12	13:00			175	208
01:15			17	16	13:15			174	227
01:30			14	11	13:30			187	201
01:45			18	80	13:45			166	702
02:00			9	11	14:00			196	185
02:15			12	4	14:15			189	182
02:30			9	9	14:30			193	187
02:45			2	32	14:45			189	767
03:00			5	3	15:00			211	197
03:15			10	5	15:15			218	203
03:30			12	10	15:30			230	227
03:45			5	32	15:45			270	929
04:00			6	8	16:00			295	252
04:15			6	7	16:15			299	256
04:30			11	6	16:30			272	252
04:45			4	27	16:45			277	1143
05:00			6	23	17:00			275	229
05:15			9	18	17:15			302	271
05:30			8	28	17:30			295	212
05:45			14	37	17:45			309	1181
06:00			20	25	18:00			295	230
06:15			24	24	18:15			333	239
06:30			54	39	18:30			258	213
06:45			69	167	18:45			225	1111
07:00			108	84	19:00			196	180
07:15			124	84	19:15			190	199
07:30			132	99	19:30			186	173
07:45			169	533	19:45			157	729
08:00			221	131	20:00			173	134
08:15			305	166	20:15			135	135
08:30			364	214	20:30			134	118
08:45			330	1220	20:45			131	573
09:00			246	196	21:00			121	131
09:15			216	181	21:15			101	114
09:30			150	147	21:30			104	105
09:45			148	760	21:45			110	436
10:00			118	156	22:00			89	76
10:15			136	160	22:15			89	96
10:30			150	168	22:30			95	71
10:45			122	526	22:45			73	346
11:00			166	179	23:00			62	57
11:15			171	175	23:15			46	39
11:30			178	172	23:30			38	35
11:45			181	696	23:45			34	180

Total Vol. 4251 3717 **7968** 8829 8281 **17110**

GPS Coordinates:

				Daily Totals			
				NB	SB	EB	WB Combined
						13080	11998 25078
AM				PM			
Split %	53.4%	46.6%	31.8 %			51.6%	48.4% 68.2 %
Peak Hour	08:15	08:30	08:15			17:30	16:00 17:15
Volume	1245	837	2067			1232	1000 2148
P.H.F.	0.86	0.85	0.89			0.92	0.98 0.94

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-009

Location: Magnolia Ave. btwn. Overland St. & Monroe St.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			48	40	12:00			148	190
00:15			30	34	12:15			158	169
00:30			30	28	12:30			170	151
00:45			30	138	12:45			202	678
01:00			32	13	13:00			179	204
01:15			15	16	13:15			164	190
01:30			13	11	13:30			181	186
01:45			21	81	13:45			203	727
02:00			10	12	14:00			183	180
02:15			12	4	14:15			203	178
02:30			11	7	14:30			164	181
02:45			2	35	14:45			212	762
03:00			6	3	15:00			188	212
03:15			10	5	15:15			221	222
03:30			13	12	15:30			288	215
03:45			7	36	15:45			279	976
04:00			6	8	16:00			317	237
04:15			7	8	16:15			295	257
04:30			10	5	16:30			260	232
04:45			4	27	16:45			289	1161
05:00			6	14	17:00			284	224
05:15			8	14	17:15			303	275
05:30			8	20	17:30			304	204
05:45			14	36	17:45			293	1184
06:00			19	16	18:00			290	240
06:15			12	22	18:15			239	284
06:30			24	38	18:30			266	205
06:45			53	108	18:45			250	1045
07:00			72	79	19:00			208	172
07:15			86	84	19:15			189	207
07:30			101	90	19:30			175	165
07:45			132	391	19:45			137	709
08:00			185	141	20:00			125	127
08:15			269	174	20:15			139	113
08:30			353	217	20:30			115	96
08:45			370	1177	20:45			120	499
09:00			208	188	21:00			125	99
09:15			148	177	21:15			105	92
09:30			157	163	21:30			136	94
09:45			144	657	21:45			88	454
10:00			114	142	22:00			77	67
10:15			128	148	22:15			84	91
10:30			147	141	22:30			80	67
10:45			126	515	22:45			66	307
11:00			157	183	23:00			72	56
11:15			172	166	23:15			42	39
11:30			160	182	23:30			62	37
11:45			135	624	23:45			35	211

Total Vol.	3825	3664	7489	8713	7926	16639
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GPS Coordinates:

				Daily Totals		
				NB	SB	Combined
				EB	WB	
				12538	11590	24128
				PM		
Split %	51.1%	48.9%	31.0 %	52.4%	47.6%	69.0 %
Peak Hour	08:15	08:30	08:15	17:15	16:30	17:15
Volume	1200	849	2046	1190	978	2145
P.H.F.	0.81	0.79	0.80	0.98	0.89	0.93

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-010

Location: Magnolia Ave. btwn. Monroe St. & Campus Bridge Dr.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			48	42	12:00			196	184
00:15			34	40	12:15			169	161
00:30			29	28	12:30			152	162
00:45			28	139	12:45			141	658
01:00			35	15	13:00			147	208
01:15			17	17	13:15			154	196
01:30			18	14	13:30			166	182
01:45			24	94	13:45			163	630
02:00			12	16	14:00			172	181
02:15			13	4	14:15			173	175
02:30			9	8	14:30			187	178
02:45			2	36	14:45			178	710
03:00			8	3	15:00			192	193
03:15			14	5	15:15			171	221
03:30			12	11	15:30			244	245
03:45			10	44	15:45			276	883
04:00			5	7	16:00			277	285
04:15			7	8	16:15			301	249
04:30			12	6	16:30			257	243
04:45			5	29	16:45			283	1118
05:00			5	11	17:00			286	264
05:15			11	16	17:15			295	251
05:30			9	18	17:30			286	219
05:45			17	42	17:45			292	1159
06:00			21	12	18:00			287	236
06:15			26	23	18:15			312	258
06:30			41	27	18:30			237	215
06:45			78	166	18:45			224	1060
07:00			99	51	19:00			182	182
07:15			109	60	19:15			185	206
07:30			124	66	19:30			176	178
07:45			154	486	19:45			154	697
08:00			195	106	20:00			154	140
08:15			268	138	20:15			129	113
08:30			298	183	20:30			137	98
08:45			321	1082	20:45			128	548
09:00			235	172	21:00			106	110
09:15			174	159	21:15			106	100
09:30			188	166	21:30			106	103
09:45			179	776	21:45			103	421
10:00			122	125	22:00			93	76
10:15			135	139	22:15			87	91
10:30			153	128	22:30			79	84
10:45			133	543	22:45			73	332
11:00			169	191	23:00			70	58
11:15			198	189	23:15			38	39
11:30			206	161	23:30			41	39
11:45			181	754	23:45			31	180

Total Vol. 4191 3295 **7486** 8396 8207 **16603**

GPS Coordinates:

				Daily Totals			
				NB	SB	EB	WB Combined
						12587	11502 24089
AM				PM			
Split %	56.0%	44.0%	31.1%			50.6%	49.4% 68.9%
Peak Hour	08:15	11:00	08:15			17:30	15:30 15:45
Volume	1122	727	1813			1177	1057 2166
P.H.F.	0.87	0.95	0.87			0.94	0.93 0.96

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-011

Location: Magnolia Ave. btwn. Campus Bridge Dr. & Adams St.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			58	39	12:00			205	191
00:15			49	41	12:15			201	182
00:30			49	42	12:30			236	196
00:45			36	192	12:45			225	867
01:00			46	21	13:00			242	222
01:15			31	14	13:15			245	208
01:30			24	19	13:30			196	191
01:45			24	125	13:45			187	870
02:00			19	13	14:00			247	175
02:15			16	11	14:15			218	196
02:30			17	10	14:30			210	214
02:45			2	54	14:45			183	858
03:00			9	4	15:00			217	296
03:15			13	8	15:15			240	299
03:30			13	5	15:30			256	263
03:45			8	43	15:45			274	987
04:00			9	11	16:00			306	293
04:15			7	10	16:15			307	279
04:30			8	14	16:30			311	280
04:45			11	35	16:45			300	1224
05:00			9	16	17:00			293	309
05:15			11	20	17:15			278	310
05:30			8	24	17:30			308	320
05:45			21	49	17:45			281	1160
06:00			24	33	18:00			251	313
06:15			38	30	18:15			237	264
06:30			45	42	18:30			230	236
06:45			81	188	18:45			228	946
07:00			99	120	19:00			221	185
07:15			106	130	19:15			220	166
07:30			124	134	19:30			222	154
07:45			147	476	19:45			217	880
08:00			196	178	20:00			214	141
08:15			256	199	20:15			179	152
08:30			285	230	20:30			163	196
08:45			269	1006	20:45			163	719
09:00			189	177	21:00			127	154
09:15			153	175	21:15			145	128
09:30			157	185	21:30			170	104
09:45			167	666	21:45			141	583
10:00			117	166	22:00			153	85
10:15			141	139	22:15			115	60
10:30			154	166	22:30			54	65
10:45			139	551	22:45			85	407
11:00			164	178	23:00			58	54
11:15			205	185	23:15			44	41
11:30			164	181	23:30			51	42
11:45			167	700	23:45			49	202

Total Vol. 4085 4112 **8197** 9703 9204 **18907**

GPS Coordinates:

				Daily Totals			
				NB	SB	EB	WB Combined
						13788	13316 27104
AM				PM			
Split %	49.8%	50.2%	30.2%			51.3%	48.7% 69.8%
Peak Hour	08:00	08:00	08:00			16:00	17:15 17:00
Volume	1006	851	1857			1224	1274 2430
P.H.F.	0.88	0.87	0.90			0.98	0.96 0.97

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-012

Location: Magnolia Ave. btwn. Adams St. & Jefferson St.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			63	34	12:00			232	221
00:15			41	38	12:15			214	207
00:30			21	33	12:30			241	232
00:45			29	154	12:45			291	978
01:00			25	31	13:00			282	253
01:15			35	8	13:15			243	269
01:30			16	10	13:30			268	232
01:45			18	94	13:45			244	1037
02:00			23	17	14:00			261	268
02:15			12	7	14:15			234	265
02:30			15	11	14:30			294	237
02:45			0	50	14:45			231	1020
03:00			13	4	15:00			235	287
03:15			9	4	15:15			256	263
03:30			11	7	15:30			279	249
03:45			12	45	15:45			301	1071
04:00			10	6	16:00			310	325
04:15			3	4	16:15			272	251
04:30			10	12	16:30			295	201
04:45			8	31	16:45			300	1177
05:00			15	10	17:00			242	248
05:15			13	10	17:15			305	228
05:30			14	20	17:30			240	181
05:45			19	61	17:45			236	1023
06:00			29	22	18:00			230	270
06:15			28	26	18:15			292	302
06:30			25	28	18:30			220	257
06:45			33	115	18:45			271	1013
07:00			75	60	19:00			174	221
07:15			84	77	19:15			196	273
07:30			126	75	19:30			154	198
07:45			195	480	19:45			137	661
08:00			255	119	20:00			77	157
08:15			329	149	20:15			77	143
08:30			386	240	20:30			60	110
08:45			345	1315	20:45			93	307
09:00			316	180	21:00			65	116
09:15			301	167	21:15			75	128
09:30			219	140	21:30			42	94
09:45			244	1080	21:45			37	219
10:00			187	122	22:00			56	90
10:15			182	146	22:15			78	114
10:30			197	130	22:30			64	86
10:45			197	763	22:45			69	267
11:00			212	169	23:00			65	61
11:15			226	190	23:15			37	66
11:30			238	153	23:30			41	69
11:45			246	922	23:45			49	192

Total Vol. 5110 3515 **8625** 8965 9455 **18420**

GPS Coordinates:

				Daily Totals			
				NB	SB	EB	WB Combined
						14075	12970 27045
AM				PM			
Split %	59.2%	40.8%	31.9%			48.7%	51.3% 68.1%
Peak Hour	08:15	08:30	08:15			15:45	15:15 15:30
Volume	1376	888	2246			1178	1088 2238
P.H.F.	0.89	0.74	0.87			0.95	0.84 0.88

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-013

Location: Monroe St. btwn. Garfield St. & Magnolia St.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	14	8			12:00	47	57		
00:15	11	11			12:15	46	57		
00:30	23	10			12:30	62	73		
00:45	16	64	14	43	12:45	68	223	51	238
01:00	6	8			13:00	77	53		
01:15	3	5			13:15	49	68		
01:30	8	6			13:30	38	71		
01:45	8	25	3	22	13:45	42	206	59	251
02:00	8	2			14:00	40	76		
02:15	6	5			14:15	42	61		
02:30	4	2			14:30	54	68		
02:45	2	20	1	10	14:45	56	192	78	283
03:00	5	4			15:00	52	78		
03:15	4	1			15:15	54	105		
03:30	1	5			15:30	61	100		
03:45	3	13	2	12	15:45	60	227	121	404
04:00	4	6			16:00	108	79		
04:15	3	3			16:15	90	103		
04:30	10	2			16:30	78	83		
04:45	4	21	5	16	16:45	66	342	87	352
05:00	12	8			17:00	91	94		
05:15	20	5			17:15	94	89		
05:30	11	9			17:30	110	105		
05:45	25	68	14	36	17:45	93	388	103	391
06:00	20	18			18:00	143	89		
06:15	27	22			18:15	112	83		
06:30	30	20			18:30	122	87		
06:45	40	117	24	84	18:45	96	473	83	342
07:00	38	43			19:00	110	74		
07:15	45	42			19:15	80	79		
07:30	63	59			19:30	88	83		
07:45	65	211	60	204	19:45	90	368	70	306
08:00	82	63			20:00	82	71		
08:15	113	107			20:15	84	58		
08:30	125	151			20:30	57	62		
08:45	152	472	149	470	20:45	74	297	59	250
09:00	119	128			21:00	60	61		
09:15	109	87			21:15	69	28		
09:30	110	85			21:30	66	24		
09:45	82	420	86	386	21:45	60	255	41	154
10:00	70	89			22:00	48	42		
10:15	60	83			22:15	32	28		
10:30	58	70			22:30	42	22		
10:45	82	270	71	313	22:45	40	162	20	112
11:00	48	70			23:00	25	21		
11:15	51	72			23:15	25	14		
11:30	31	73			23:30	19	19		
11:45	46	176	69	284	23:45	20	89	13	67

Total Vol. 1877 1880 **3757** 3222 3150 **6372**

GPS Coordinates:

				Daily Totals			
				NB	SB	EB	WB
				5099	5030		
				10129			
AM				PM			
Split %	50.0%	50.0%	37.1%	50.6%	49.4%	62.9%	
Peak Hour	08:15	08:15	08:15	18:00	15:15	17:30	
Volume	509	535	1044	473	405	838	
P.H.F.	0.84	0.89	0.87	0.83	0.84	0.90	

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-014

Location: Monroe St. btwn. Magnolia St. & Diana Ave.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	4	11			12:00	47	42		
00:15	11	4			12:15	41	34		
00:30	8	14			12:30	42	34		
00:45	5	28	10	39	12:45	67	197	51	161
01:00	6	2			13:00	55	53		
01:15	1	2			13:15	55	46		
01:30	8	7			13:30	48	52		
01:45	7	22	2	13	13:45	52	210	47	198
02:00	5	5			14:00	56	43		
02:15	3	3			14:15	63	40		
02:30	1	3			14:30	55	35		
02:45	3	12	0	11	14:45	73	247	62	180
03:00	8	0			15:00	73	53		
03:15	0	0			15:15	83	72		
03:30	1	2			15:30	83	129		
03:45	3	12	0	2	15:45	84	323	117	371
04:00	0	2			16:00	124	120		
04:15	4	3			16:15	107	110		
04:30	8	4			16:30	84	117		
04:45	5	17	4	13	16:45	84	399	103	450
05:00	3	10			17:00	87	108		
05:15	9	4			17:15	78	92		
05:30	8	5			17:30	100	95		
05:45	9	29	12	31	17:45	99	364	109	404
06:00	10	11			18:00	93	95		
06:15	13	14			18:15	85	98		
06:30	24	25			18:30	84	103		
06:45	53	100	39	89	18:45	85	347	67	363
07:00	57	41			19:00	70	76		
07:15	69	50			19:15	66	67		
07:30	75	62			19:30	64	61		
07:45	90	291	79	232	19:45	51	251	50	254
08:00	97	80			20:00	57	45		
08:15	142	81			20:15	48	44		
08:30	189	159			20:30	37	27		
08:45	181	609	180	500	20:45	37	179	28	144
09:00	127	109			21:00	33	34		
09:15	83	65			21:15	44	41		
09:30	71	54			21:30	49	35		
09:45	63	344	43	271	21:45	25	151	35	145
10:00	45	38			22:00	28	23		
10:15	57	36			22:15	17	24		
10:30	36	28			22:30	20	31		
10:45	42	180	31	133	22:45	18	83	24	102
11:00	39	61			23:00	17	23		
11:15	60	49			23:15	15	12		
11:30	45	35			23:30	18	5		
11:45	37	181	45	190	23:45	11	61	10	50

Total Vol.	1825	1524	3349	2812	2822	5634
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GPS Coordinates:

				Daily Totals		
				NB	SB	EB
				WB	Combined	
				4637	4346	8983
AM				PM		
Split %	54.5%	45.5%	37.3 %	49.9%	50.1%	62.7 %
Peak Hour	08:15	08:15	08:15	15:45	15:30	15:30
Volume	639	529	1168	399	476	874
P.H.F.	0.85	0.73	0.81	0.80	0.92	0.90

Total Vol.	1950	1447	3397	2665	3150	5815		
GPS Coordinates:				Daily Totals				
				NB	SB	EB	WB	Combined
				4615	4597	9212		
AM				PM				
Split %	57.4%	42.6%	36.9 %	45.8%	54.2%	63.1 %		
Peak Hour	08:15	08:15	08:15	15:45	15:30	15:30		
Volume	617	494	1111	378	507	881		
P.H.F.	0.88	0.69	0.78	0.78	0.86	0.95		

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-016

Location: Diana Ave. btwn. Monroe St. & Campus View

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			2	2	12:00			14	20
00:15			1	0	12:15			10	23
00:30			0	1	12:30			11	17
00:45			1	4	12:45			13	48
01:00			2	0	13:00			16	21
01:15			1	0	13:15			14	22
01:30			0	0	13:30			10	12
01:45			0	3	13:45			11	51
02:00			0	1	14:00			17	19
02:15			1	0	14:15			17	25
02:30			0	1	14:30			20	23
02:45			0	1	14:45			35	89
03:00			1	1	15:00			21	21
03:15			2	0	15:15			28	14
03:30			1	0	15:30			17	17
03:45			3	7	15:45			18	84
04:00			2	5	16:00			20	21
04:15			1	0	16:15			25	15
04:30			4	1	16:30			22	24
04:45			1	8	16:45			14	81
05:00			5	8	17:00			15	21
05:15			8	8	17:15			18	18
05:30			11	8	17:30			18	18
05:45			10	34	17:45			24	75
06:00			14	8	18:00			44	27
06:15			15	10	18:15			34	15
06:30			12	21	18:30			30	23
06:45			11	52	18:45			33	141
07:00			20	5	19:00			17	7
07:15			24	8	19:15			12	21
07:30			29	21	19:30			13	10
07:45			30	103	19:45			20	62
08:00			34	14	20:00			10	6
08:15			36	16	20:15			10	6
08:30			43	24	20:30			8	8
08:45			40	153	20:45			14	42
09:00			65	35	21:00			6	5
09:15			54	45	21:15			8	7
09:30			41	46	21:30			8	10
09:45			28	188	21:45			4	26
10:00			21	23	22:00			5	6
10:15			14	27	22:15			4	11
10:30			16	10	22:30			8	6
10:45			13	64	22:45			1	18
11:00			11	16	23:00			4	3
11:15			10	44	23:15			0	3
11:30			14	24	23:30			0	2
11:45			19	54	23:45			0	4

Total Vol. 671 582 **1253** 721 715 **1436**

GPS Coordinates:

					Daily Totals				
					NB	SB	EB	WB	Combined
							1392	1297	2689
AM					PM				
Split %	53.6%	46.4%	46.6 %		Split %	50.2%	49.8%	53.4 %	
Peak Hour	08:30	08:45	08:45		Peak Hour	18:00	12:15	17:45	
Volume	202	159	359		Volume	141	104	226	
P.H.F.	0.78	0.86	0.90		P.H.F.	0.80	0.60	0.80	

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 02, 2016

City: Riverside

Project #: 16-1080-017

Location: Diana Ave. btwn. Campus View & Adams St.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			1	1	12:00			24	26
00:15			1	2	12:15			33	21
00:30			1	1	12:30			27	28
00:45			0	3	12:45			45	129
01:00			1	1	13:00			48	46
01:15			0	3	13:15			40	35
01:30			4	1	13:30			21	29
01:45			2	7	13:45			19	128
02:00			0	1	14:00			33	25
02:15			0	0	14:15			40	28
02:30			0	1	14:30			50	37
02:45			2	2	14:45			63	186
03:00			1	0	15:00			47	27
03:15			0	0	15:15			33	25
03:30			0	0	15:30			37	25
03:45			2	3	15:45			35	152
04:00			2	4	16:00			37	29
04:15			2	1	16:15			45	24
04:30			1	0	16:30			40	25
04:45			3	8	16:45			48	170
05:00			5	3	17:00			39	35
05:15			9	0	17:15			34	34
05:30			6	2	17:30			42	30
05:45			8	28	17:45			40	155
06:00			6	1	18:00			69	29
06:15			11	1	18:15			38	32
06:30			20	2	18:30			44	31
06:45			8	45	18:45			21	172
07:00			11	20	19:00			20	23
07:15			13	20	19:15			13	12
07:30			22	28	19:30			15	20
07:45			17	63	19:45			10	58
08:00			15	29	20:00			8	10
08:15			13	26	20:15			8	11
08:30			15	44	20:30			9	9
08:45			25	68	20:45			4	29
09:00			24	37	21:00			5	6
09:15			25	60	21:15			7	7
09:30			24	69	21:30			10	6
09:45			15	88	21:45			9	31
10:00			18	25	22:00			6	3
10:15			17	19	22:15			11	5
10:30			16	25	22:30			5	9
10:45			24	75	22:45			4	26
11:00			16	38	23:00			4	7
11:15			37	61	23:15			3	0
11:30			26	33	23:30			2	4
11:45			17	96	23:45			1	10

Total Vol. 486 754 **1240** 1246 1036 **2282**

GPS Coordinates:

				Daily Totals			
				NB	SB	EB	WB Combined
						1732	1790 3522
				AM		PM	
Split %	39.2%	60.8%	35.2%			54.6%	45.4% 64.8%
Peak Hour	11:15	09:00	08:45			14:15	13:00 14:15
Volume	104	214	310			200	149 332
P.H.F.	0.70	0.78	0.83			0.79	0.81 0.81

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 23, 2016

City: Riverside

Project #: 16-1109-018

Location: Campus View Dr. north of Diana Ave.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	11	8			12:00	46	58		
00:15	2	3			12:15	21	36		
00:30	4	4			12:30	28	45		
00:45	1	18	3	18	12:45	18	113	37	176
01:00	3	6			13:00	18	42		
01:15	1	5			13:15	34	45		
01:30	1	2			13:30	31	41		
01:45	0	5	2	15	13:45	51	134	78	206
02:00	1	2			14:00	39	48		
02:15	4	1			14:15	36	25		
02:30	0	0			14:30	13	23		
02:45	0	5	0	3	14:45	20	108	25	121
03:00	1	2			15:00	22	19		
03:15	1	0			15:15	27	34		
03:30	0	1			15:30	32	36		
03:45	3	5	2	5	15:45	23	104	30	119
04:00	0	0			16:00	27	16		
04:15	3	1			16:15	23	23		
04:30	0	0			16:30	18	33		
04:45	2	5	0	1	16:45	22	90	28	100
05:00	0	0			17:00	16	53		
05:15	1	4			17:15	18	25		
05:30	1	3			17:30	21	25		
05:45	1	3	1	8	17:45	22	77	23	126
06:00	2	1			18:00	28	27		
06:15	15	4			18:15	21	10		
06:30	12	3			18:30	24	23		
06:45	16	45	5	13	18:45	17	90	21	81
07:00	24	1			19:00	17	18		
07:15	10	2			19:15	14	8		
07:30	27	4			19:30	12	9		
07:45	55	116	3	10	19:45	16	59	10	45
08:00	71	8			20:00	11	8		
08:15	58	7			20:15	5	10		
08:30	29	4			20:30	9	11		
08:45	34	192	4	23	20:45	14	39	6	35
09:00	52	8			21:00	5	5		
09:15	105	16			21:15	9	10		
09:30	42	17			21:30	11	11		
09:45	22	221	21	62	21:45	12	37	9	35
10:00	43	11			22:00	18	13		
10:15	28	12			22:15	11	13		
10:30	74	31			22:30	11	10		
10:45	50	195	34	88	22:45	5	45	18	54
11:00	14	13			23:00	5	16		
11:15	23	16			23:15	5	8		
11:30	26	17			23:30	3	8		
11:45	47	110	35	81	23:45	4	17	11	43

Total Vol.	920	327	1247	913	1141	2054
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GPS Coordinates:

				Daily Totals		
				NB	SB	EB
				WB	Combined	
				1833	1468	3301
AM				PM		
Split %	73.8%	26.2%	37.8%	44.4%	55.6%	62.2%
Peak Hour	08:45	11:45	11:45	13:30	13:15	13:15
Volume	233	174	316	157	212	367
P.H.F.	0.55	0.75	0.76	0.77	0.68	0.71

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, March 23, 2016

City: Riverside

Project #: 16-1109-019

Location: Campus Bridge Dr. south of Magnolia Ave.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	23	16			12:00	98	100		
00:15	14	24			12:15	61	56		
00:30	14	11			12:30	49	33		
00:45	12	63	10	61	12:45	22	230	36	225
01:00	9	8			13:00	44	42		
01:15	3	6			13:15	36	42		
01:30	4	8			13:30	76	93		
01:45	2	18	5	27	13:45	158	314	99	276
02:00	1	2			14:00	85	39		
02:15	3	3			14:15	60	35		
02:30	1	1			14:30	48	34		
02:45	2	7	3	9	14:45	56	249	52	160
03:00	3	5			15:00	61	65		
03:15	4	4			15:15	70	59		
03:30	1	1			15:30	108	86		
03:45	2	10	1	11	15:45	55	294	101	311
04:00	0	0			16:00	75	100		
04:15	1	0			16:15	38	90		
04:30	1	1			16:30	73	97		
04:45	1	3	5	6	16:45	66	252	67	354
05:00	1	2			17:00	79	76		
05:15	4	5			17:15	79	67		
05:30	4	8			17:30	61	84		
05:45	10	19	13	28	17:45	64	283	97	324
06:00	3	16			18:00	79	95		
06:15	3	14			18:15	66	64		
06:30	16	20			18:30	97	74		
06:45	11	33	22	72	18:45	86	328	102	335
07:00	6	29			19:00	98	104		
07:15	14	54			19:15	72	68		
07:30	13	75			19:30	64	51		
07:45	18	51	85	243	19:45	56	290	54	277
08:00	25	89			20:00	55	43		
08:15	23	103			20:15	48	57		
08:30	12	199			20:30	57	41		
08:45	25	85	96	487	20:45	86	246	37	178
09:00	15	87			21:00	139	37		
09:15	56	85			21:15	100	34		
09:30	39	86			21:30	79	37		
09:45	21	131	60	318	21:45	107	425	48	156
10:00	20	65			22:00	91	44		
10:15	27	58			22:15	47	31		
10:30	153	54			22:30	41	33		
10:45	55	255	41	218	22:45	24	203	41	149
11:00	30	36			23:00	39	23		
11:15	39	29			23:15	21	25		
11:30	36	55			23:30	33	19		
11:45	154	259	82	202	23:45	30	123	23	90

Total Vol.	934	1682	2616	3237	2835	6072
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GPS Coordinates:

				Daily Totals		
				NB	SB	EB
				WB	Combined	
				4171	4517	8688
AM				PM		
Split %	35.7%	64.3%	30.1%	53.3%	46.7%	69.9%
Peak Hour	11:45	08:00	11:30	21:00	15:45	18:30
Volume	362	487	642	425	388	701
P.H.F.	0.59	0.61	0.68	0.76	0.96	0.87

APPENDIX C

Trip Generation Calculations

Existing driveway volumes @ Magnolia Ave / Campus View &
@ Diana Ave / Campus View

$$\begin{aligned}\text{AM: Entering trips} &= 169 + 285 + 106 + 56 \\ &= 616 \text{ (84\%)}\end{aligned}$$

$$\begin{aligned}\text{Exiting trips} &= 30 + 73 + 4 + 8 \\ &= 115 \text{ (16\%)}\end{aligned}$$

$$\text{Total trips} = 731 \text{ (100\%)}$$

$$\begin{aligned}\text{PM: Entering trips} &= 147 + 231 + 51 + 18 \\ &= 447 \text{ (49\%)}\end{aligned}$$

$$\begin{aligned}\text{Exiting trips} &= 134 + 210 + 91 + 28 \\ &= 463 \text{ (51\%)}\end{aligned}$$

$$\text{Total trips} = 910 \text{ (100\%)}$$

$$\begin{aligned}\text{ADT: Entering trips} &= 1833 + 4517 \\ &= 6350\end{aligned}$$

$$\begin{aligned}\text{Exiting trips} &= 1468 + 4171 \\ &= 5639\end{aligned}$$

$$\text{Total trips} = 11,989$$

Trip Generation based on existing counts/existing students

AM : Rate = 731 trips / 8323 students (existing)
= 0.09 trips/student (existing)

Total trips = 0.09 trips/student $\times$ 12,000 students (2025)
= 1080 Trips
84% Entering, 16% Exiting
907 Entering, 173 Exiting

PM : Rate = 910 trips / 8323 students (existing)
= 0.11 trips/student (existing)

Total trips = 0.11 trips/student $\times$ 12,000 students (2025)
= 1320 Trips
49% Entering, 51% Exiting
647 Entering, 673 Exiting

ADT : Rate = 11,989 trips / 8323 students (existing)
= 1.44 trips/student

Total trips = 1.44 trips/student $\times$ 12,000 students (2025)
= 17,280 trips

New Trips:

INCREASE 47% AM : 1080 - 731 = 349 (293 Entering, 56 Exiting)

AS% PM : 1320 - 910 = 589 (289 Entering, 300 Exiting)

.4 ADT: 17,280 - 11,989 = 5,291

Trip Generation

12,000 total students projected by 2025

Land Use Code 550 : University/College

ADT: $\ln(T) = 0.86 \ln(X) + 1.93$
 $\ln(T) = 0.86 \ln(12,000) + 1.93$
 $\ln(T) = 10.01$
 $T = 22,248 \text{ Trips}$

AM : $\ln(T) = 0.88 \ln(X) - 0.68$
 $\ln(T) = 0.88 \ln(12,000) - 0.68$
 $\ln(T) = 7.59$
 $T = 1978 \text{ Trips}$
78% Entering, 22% Exiting
1543 Entering, 435 Exiting

PM : $\ln(T) = 0.73 \ln(X) + 0.84$
 $\ln(T) = 0.73 \ln(12,000) + 0.84$
 $\ln(T) = 7.70$
 $T = 2208 \text{ Trips}$
32% Entering, 68% Exiting
707 Entering, 1501 Exiting

Trip Generation

12,000 Students projected by 2025

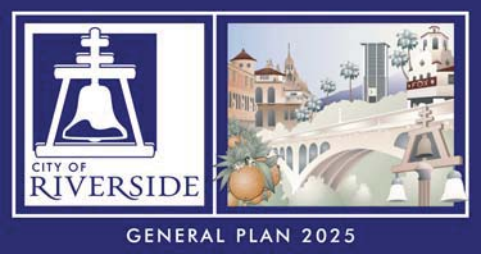
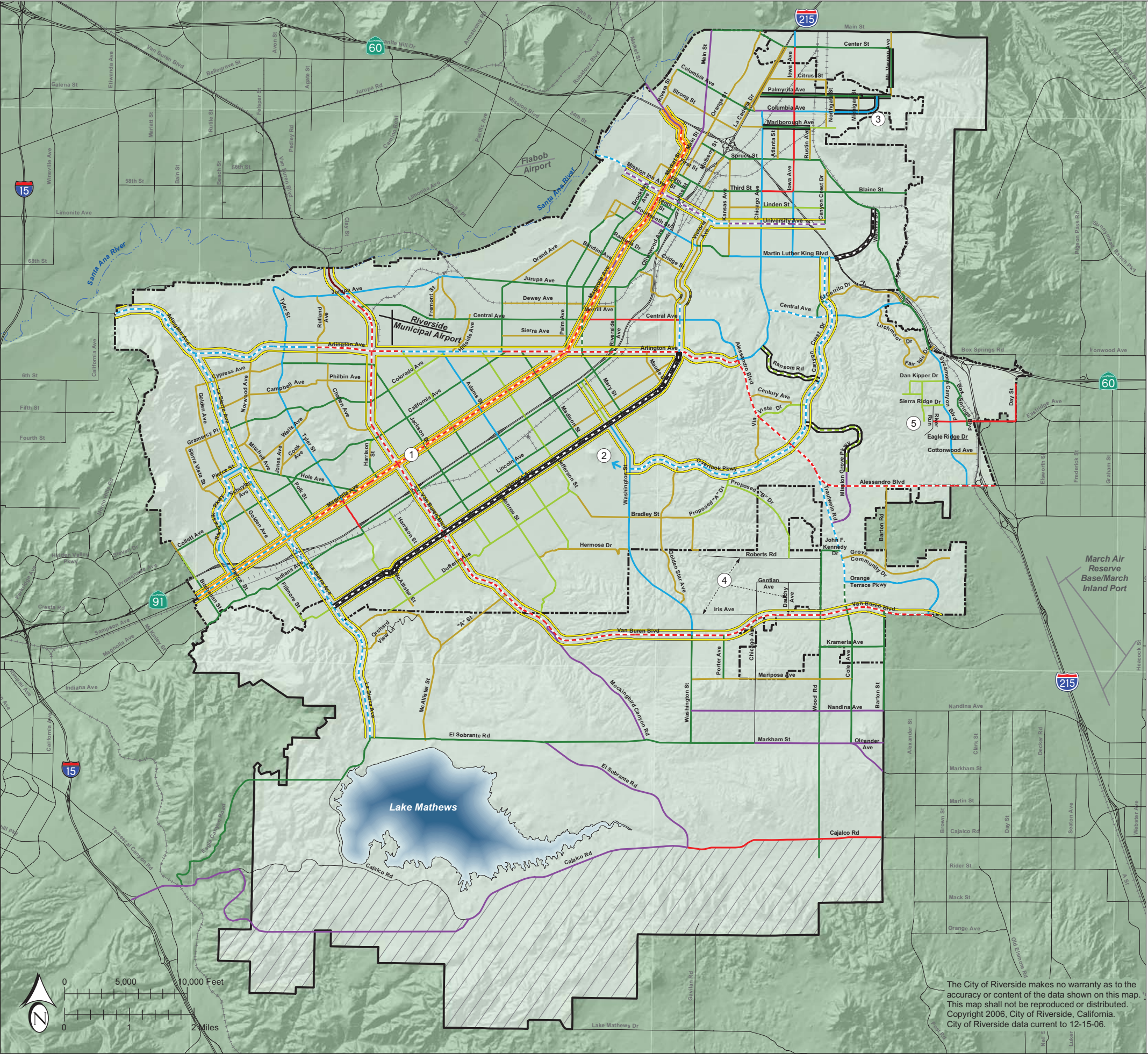
<u>ITE</u>	<u>CBU</u>	<u>% Diff</u>
AM: T = 1,978 Trips	T = 1,080 Trips	-45%
PM: T = 2,208 Trips	T = 1,320 Trips	-40%
ADT: T = 22,248 Trips	T = 17,280 trips	-22%

Counts

Machine - Wed 3/2/16
TMC - THUR 3/3/16

APPENDIX D

City of Riverside Circulation Element



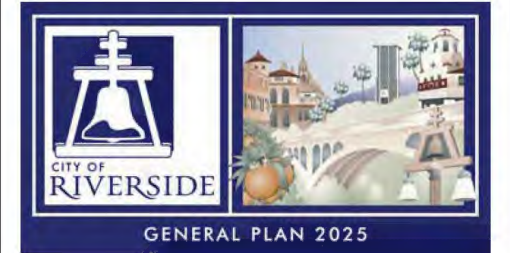
LEGEND

- 66 FT LOCAL 2 LANES *
- 66 FT COLLECTOR 2 LANES
- 80 FT COLLECTOR 2 LANES
- 88 FT ARTERIAL 4 LANES
- 100 FT ARTERIAL 4 LANES
- 110 FT ARTERIAL 4 LANES
- 120 FT ARTERIAL 6 LANES
- 144 FT ARTERIAL 8 LANES
- SCENIC BOULEVARD
REQUIRES SPECIAL LANDSCAPING,
ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED.
- SPECIAL BOULEVARD
TWO-LANE DIVIDED ROADWAY OF
VARIABLE GEOMETRIC DESIGN
- SPECIAL BOULEVARD
VARIABLE WIDTHS AND DESIGN, CONTACT PUBLIC WORKS
FOR DETAIL. SEE OBJECTIVE CCM-3 AND POLICIES CCM-3.1
THROUGH CCM-3.5.
- PARKWAYS
FOR INFORMATION ON PARKWAYS SEE
LAND USE ELEMENT.
- CETAP CORRIDOR AREA
CORRIDOR OPTIONS SUBJECT TO SPECIAL STUDY.
- RIVERSIDE CITY BOUNDARY
- RIVERSIDE PROPOSED SPHERE
OF INFLUENCE

- NOTE:
- * LOCAL STREETS ARE NOT SHOWN ON THIS
PLAN EXCEPT WHERE NEEDED FOR CLARITY.
 - ① MAGNOLIA AVENUE SHALL BE A SPECIAL BLVD, WITH
4 LANES EXCEPT WHERE 6 LANES CURRENTLY EXIST
WITH RIGHT-OF-WAY TO BE DETERMINED BY THE
MAGNOLIA AVENUE SPECIFIC PLAN.
 - ② OVERLOOK PARKWAY SHALL BE A 2-LANE,
110-FOOT ARTERIAL WITH A WIDE MEDIAN PARKWAY.
THE ALIGNMENT OF OVERLOOK PARKWAY WESTERLY
OF WASHINGTON IS NOT YET DETERMINED PENDING
PREPARATION OF SPECIFIC PLAN LEVEL STUDY.
 - ③ COLUMBIA AVENUE IS SHOWN BY HUNTER BUSINESS
PARK SPECIFIC PLAN AS A 134-FOOT ARTERIAL.
ACTUAL STREET WIDTH, DUE TO RAILROAD
OVERCROSSING , WILL BE DETERMINED BY
PUBLIC WORKS.
 - ④ THESE STREETS SHALL BE 66-FOOT LOCAL
ROADWAYS SERVING AS ALTERNATE ROUTES.
 - ⑤ THE STREETS IN SYCAMORE CANYON
BUSINESS PARK SPECIFIC PLAN VARY IN SIZE.
SEE THE SPECIFIC PLAN FOR DETAILS.

SOURCE: CITY OF RIVERSIDE

Figure CCM-4
MASTER PLAN
OF ROADWAYS



NOTE:
FOR PARKWAY CROSS SECTION STANDARDS,
CONSULT THE PUBLIC WORKS DEPARTMENT.

SOURCE: CITY OF RIVERSIDE, 2004.

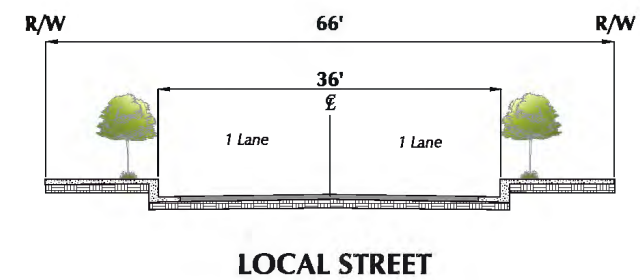
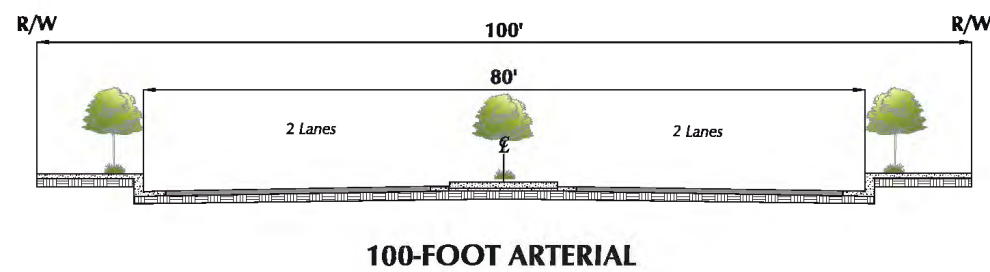
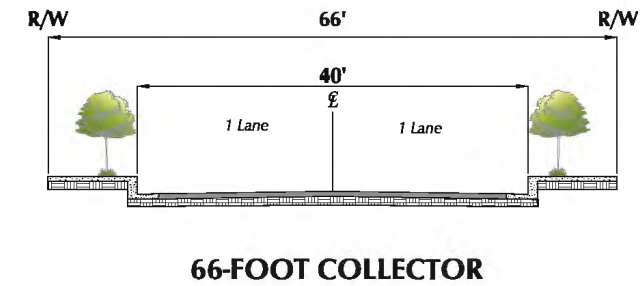
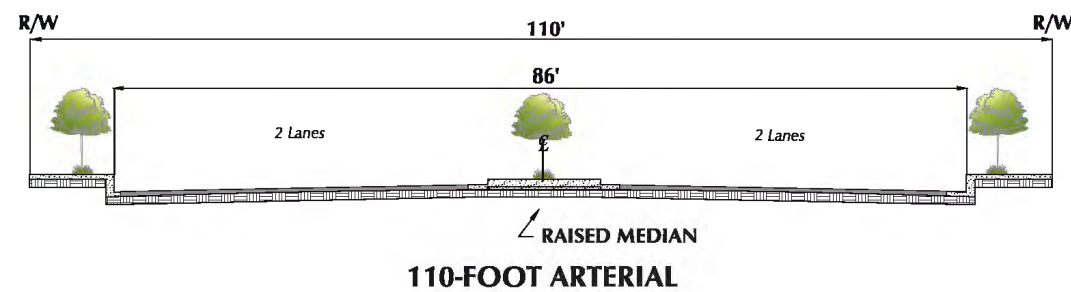
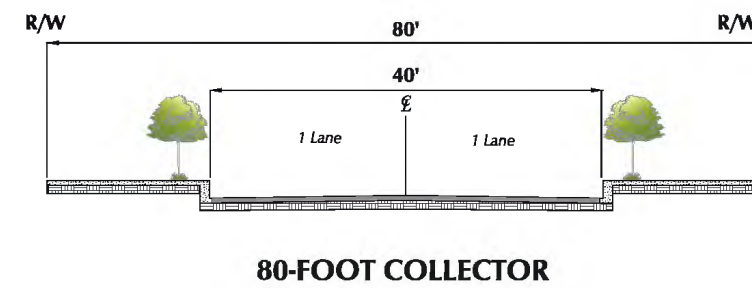
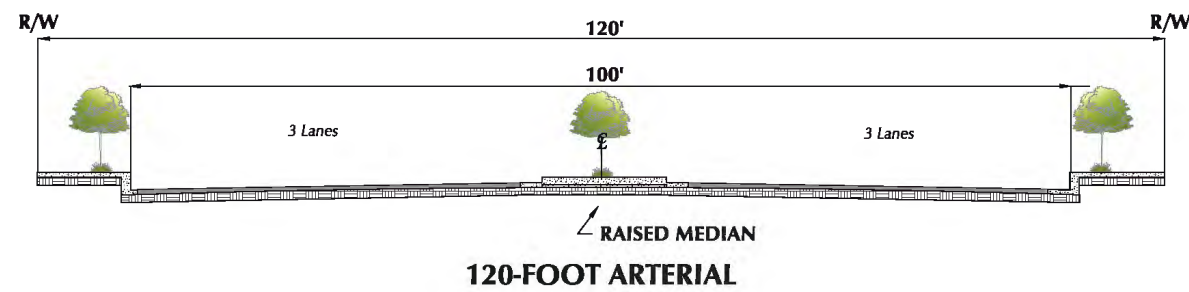
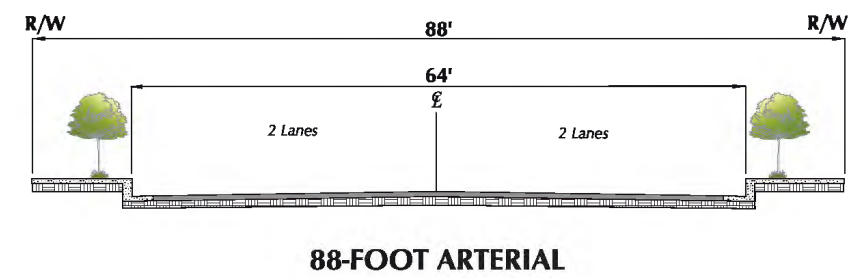
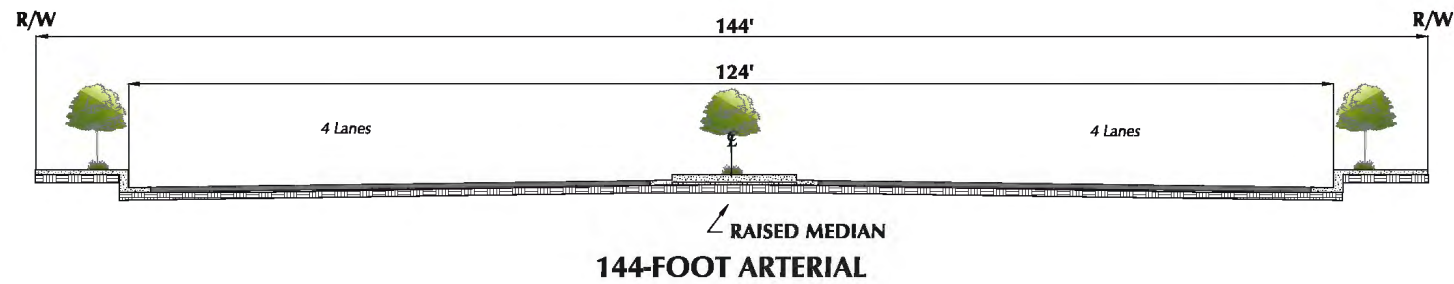
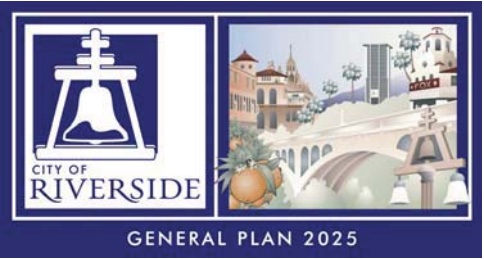
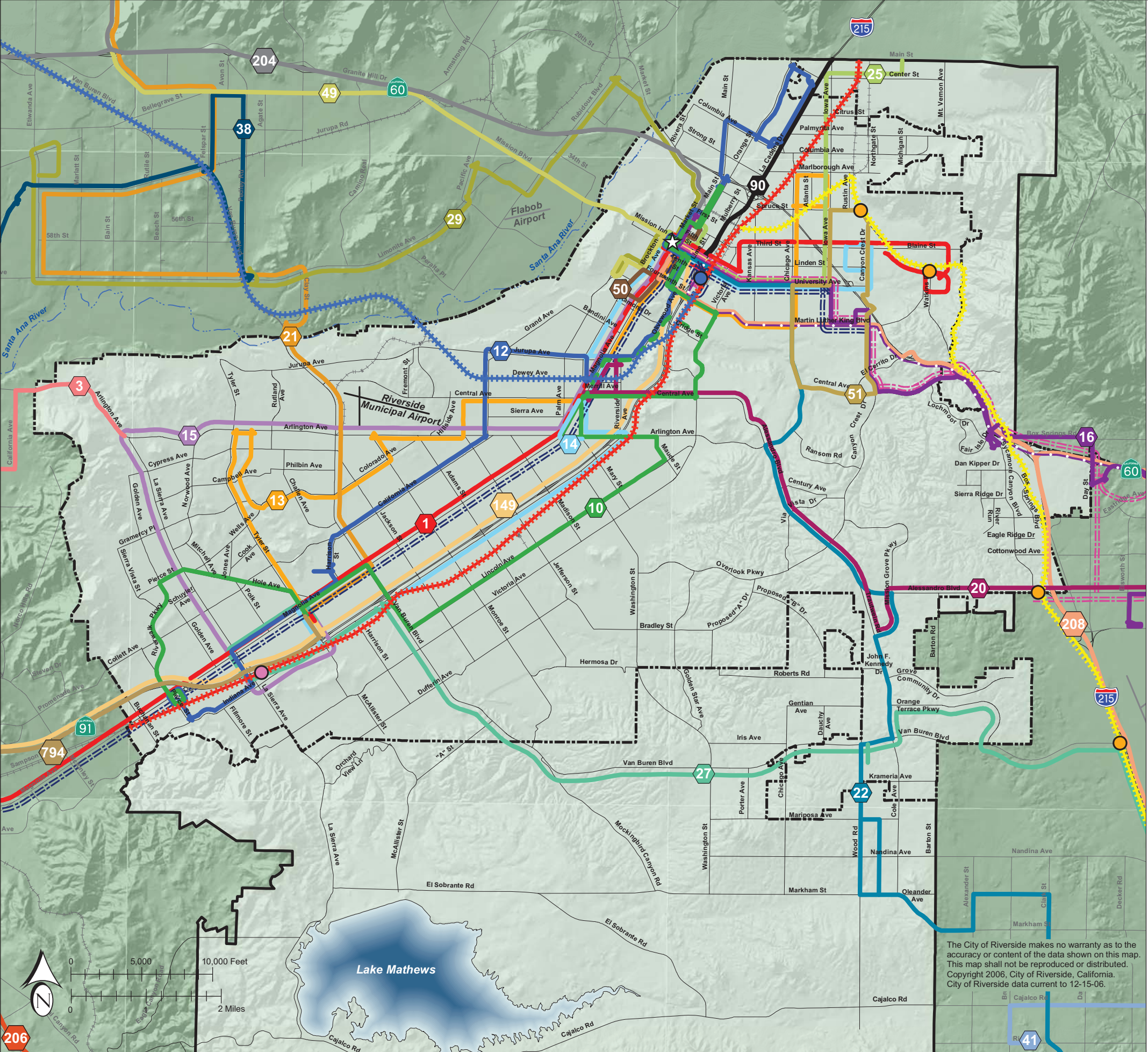


Figure CCM-2
STANDARD
ROADWAY
CROSS SECTION



LEGEND

RAIL CORRIDORS

- 91/ORANGE COUNTY/INLAND EMPIRE LINES
- PROPOSED PERRIS VALLEY METROLINK LINE- POTENTIAL ALIGNMENT
- RIVERSIDE METROLINK LINE
- LA SIERRA STATION
- DOWNTOWN STATION
- POTENTIAL METROLINK STATIONS
- DOWNTOWN TERMINAL

RTA BUS ROUTES AS OF DECEMBER 2006

- | | |
|---|-------------------------------------|
| 1 UCR/DOWNTOWN RIVERSIDE TO WEST CORONA METROLINK | 29 DOWNTOWN TO ETIWANDA/RUBIDOUX |
| 3 ARLINGTON/LA SIERRA TO MAGNOLIA/FULLERTON | 38 RCC NORCO TO JURUPA |
| 10 MAIN/RUSSELL TO PIERCE/STERLING | 41 MEAD VALLEY TO RCR MED CENTER |
| 12 STEPHENS/CENTER TO PIERCE/STERLING | 49 RIVERSIDE TO COUNTRY VILLAGE |
| 13 CHICAGO/MARLBOROUGH TO GALLERIA AT TYLER | 50 JURY TROLLEY SERVICE |
| 14 BLAINE/CANYON CREST TO GALLERIA AT TYLER | 51 UCR TO CANYON CREST TOWN CENTER |
| 15 DOWNTOWN TO GALLERIA AT TYLER | 90 RIVERSIDE TO SAN BERNARDINO |
| 16 MAIN/RUSSELL TO MARCH RESERVE AIR FORCE BASE | 149 RIVERSIDE TO ORANGE |
| 20 MAGNOLIA CENTER TO MORENO VALLEY | 204 RIVERSIDE TO MONTCLAIR |
| 21 COUNTRY VILLAGE TO GALLERIA AT TYLER | 206 TEMECULA AND MURRIETA TO CORONA |
| 22 DOWNTOWN TO LAKE ELSINORE OUTLET CENTER | 208 TEMECULA TO RIVERSIDE METROLINK |
| 25 DOWNTOWN TO LOMA LINDA VA HOSPITAL | 794 GALLERIA AT TYLER TO COSTA MESA |
| 27 GALLERIA AT TYLER TO HEMET VALLEY MALL | |

- RIVERSIDE CITY BOUNDARY
- RIVERSIDE PROPOSED SPHERE OF INFLUENCE
- PROPOSED BRT A
- PROPOSED BRT B

SOURCE: RIVERSIDE TRANSIT AUTHORITY, 2006

Figure CCM-5
TRANSIT FACILITIES

APPENDIX E

Intersection Calculation Sheets

Existing Conditions - AM Peak Hour
1: Adams Street & Garfield Street

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	57	131	31	36	59	87	750	22	44	805	17
Future Volume (veh/h)	19	57	131	31	36	59	87	750	22	44	805	17
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	23	69	158	37	43	71	105	904	27	53	970	20
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	120	236	158	145	177	134	1589	47	77	1493	31
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.08	0.45	0.45	0.04	0.42	0.42
Sat Flow, veh/h	77	527	1039	241	639	781	1774	3509	105	1774	3546	73
Grp Volume(v), veh/h	250	0	0	151	0	0	105	456	475	53	484	506
Grp Sat Flow(s),veh/h/ln	1644	0	0	1661	0	0	1774	1770	1844	1774	1770	1850
Q Serve(g_s), s	1.2	0.0	0.0	0.0	0.0	0.0	2.5	8.2	8.2	1.3	9.5	9.5
Cycle Q Clear(g_c), s	5.9	0.0	0.0	3.2	0.0	0.0	2.5	8.2	8.2	1.3	9.5	9.5
Prop In Lane	0.09		0.63	0.25		0.47	1.00		0.06	1.00		0.04
Lane Grp Cap(c), veh/h	463	0	0	480	0	0	134	802	835	77	745	779
V/C Ratio(X)	0.54	0.00	0.00	0.31	0.00	0.00	0.78	0.57	0.57	0.69	0.65	0.65
Avail Cap(c_a), veh/h	842	0	0	833	0	0	286	898	935	245	857	896
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	0.0	14.2	0.0	0.0	19.7	8.7	8.7	20.5	10.0	10.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.4	0.0	0.0	9.5	0.7	0.6	10.3	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	1.6	0.0	0.0	1.6	4.1	4.2	0.8	4.9	5.1
LnGrp Delay(d),s/veh	16.2	0.0	0.0	14.6	0.0	0.0	29.2	9.4	9.4	30.7	11.4	11.4
LnGrp LOS	B			B			C	A	A	C	B	B
Approach Vol, veh/h		250			151			1036			1043	
Approach Delay, s/veh		16.2			14.6			11.4			12.4	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.8	7.3	22.3		13.8	5.9	23.6				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		20.0	7.0	21.0		20.0	6.0	22.0				
Max Q Clear Time (g_c+I1), s		7.9	4.5	11.5		5.2	3.3	10.2				
Green Ext Time (p_c), s		2.0	0.0	6.8		2.2	0.0	8.0				
Intersection Summary												
HCM 2010 Ctrl Delay			12.5									
HCM 2010 LOS			B									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	589	183	113	384	241	371	591	253	239	674	71
Future Volume (veh/h)	86	589	183	113	384	241	371	591	253	239	674	71
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1885	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	98	669	208	128	436	274	422	672	288	272	766	81
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	122	802	249	158	659	411	501	1016	482	306	1023	108
Arrive On Green	0.07	0.30	0.30	0.09	0.31	0.31	0.14	0.29	0.29	0.17	0.32	0.32
Sat Flow, veh/h	1703	2713	843	1810	2121	1323	3510	3539	1680	1774	3231	342
Grp Volume(v), veh/h	98	445	432	128	368	342	422	672	288	272	419	428
Grp Sat Flow(s),veh/h/ln	1703	1805	1751	1810	1791	1652	1755	1770	1680	1774	1770	1802
Q Serve(g_s), s	5.7	23.4	23.4	7.0	18.0	18.3	11.9	16.9	15.0	15.2	21.5	21.5
Cycle Q Clear(g_c), s	5.7	23.4	23.4	7.0	18.0	18.3	11.9	16.9	15.0	15.2	21.5	21.5
Prop In Lane	1.00		0.48	1.00		0.80	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	122	533	517	158	557	513	501	1016	482	306	560	571
V/C Ratio(X)	0.80	0.83	0.84	0.81	0.66	0.67	0.84	0.66	0.60	0.89	0.75	0.75
Avail Cap(c_a), veh/h	168	570	553	196	583	538	624	1222	580	368	664	676
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	33.4	33.4	45.4	30.3	30.4	42.3	31.8	31.1	41.0	31.0	31.0
Incr Delay (d2), s/veh	17.1	9.9	10.2	18.2	2.6	3.0	8.4	1.0	1.2	20.1	3.9	3.9
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	3.3	13.1	12.7	4.3	9.3	8.7	6.3	8.4	7.1	9.1	11.1	11.3
LnGrp Delay(d),s/veh	63.4	43.2	43.6	63.6	32.9	33.3	50.7	32.8	32.3	61.0	34.9	34.9
LnGrp LOS	E	D	D	E	C	C	D	C	C	E	C	C
Approach Vol, veh/h		975			838			1382			1119	
Approach Delay, s/veh		45.4			37.8			38.2			41.3	
Approach LOS		D			D			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	12.8	33.9	18.5	36.1	11.3	35.5	21.5	33.1				
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	11.0	32.0	18.0	38.0	10.0	33.0	21.0	35.0				
Max Q Clear Time (g_c+I1), s	9.0	25.4	13.9	23.5	7.7	20.3	17.2	18.9				
Green Ext Time (p_c), s	0.1	4.6	0.6	8.5	0.0	7.5	0.3	9.1				
Intersection Summary												
HCM 2010 Ctrl Delay			40.5									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	3	21	45	4	18	26	1047	12	9	820	34
Future Volume (veh/h)	57	3	21	45	4	18	26	1047	12	9	820	34
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1937	1900	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	69	4	25	54	5	22	31	1261	14	11	988	41
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	9	35	141	17	38	40	2843	32	19	2704	112
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.02	0.79	0.79	0.01	0.78	0.78
Sat Flow, veh/h	1131	110	425	1013	211	456	1774	3586	40	1774	3463	144
Grp Volume(v), veh/h	98	0	0	81	0	0	31	622	653	11	505	524
Grp Sat Flow(s),veh/h/ln	1665	0	0	1680	0	0	1774	1770	1856	1774	1770	1837
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	0.0	1.8	11.8	11.8	0.6	9.2	9.2
Cycle Q Clear(g_c), s	5.7	0.0	0.0	4.6	0.0	0.0	1.8	11.8	11.8	0.6	9.2	9.2
Prop In Lane	0.70		0.26	0.67		0.27	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	196	0	0	196	0	0	40	1403	1471	19	1381	1434
V/C Ratio(X)	0.50	0.00	0.00	0.41	0.00	0.00	0.77	0.44	0.44	0.59	0.37	0.37
Avail Cap(c_a), veh/h	529	0	0	531	0	0	422	1403	1471	338	1381	1434
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	46.7	0.0	0.0	46.3	0.0	0.0	51.0	3.5	3.5	51.7	3.5	3.5
Incr Delay (d2), s/veh	2.0	0.0	0.0	1.4	0.0	0.0	26.0	1.0	1.0	16.6	0.4	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	2.9	0.0	0.0	2.3	0.0	0.0	1.2	6.1	6.4	0.4	4.5	4.7
LnGrp Delay(d),s/veh	48.7	0.0	0.0	47.7	0.0	0.0	77.0	4.5	4.4	68.4	4.0	4.0
LnGrp LOS	D			D			E	A	A	E	A	A
Approach Vol, veh/h		98			81			1306			1040	
Approach Delay, s/veh		48.7			47.7			6.2			4.7	
Approach LOS		D			D			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.7	6.4	86.0		12.7	5.1	87.3				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		32.0	25.0	36.0		32.0	20.0	41.0				
Max Q Clear Time (g_c+I1), s		7.7	3.8	11.2		6.6	2.6	13.8				
Green Ext Time (p_c), s		1.0	0.0	16.2		1.0	0.0	17.2				
Intersection Summary												
HCM 2010 Ctrl Delay			8.5									
HCM 2010 LOS			A									

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	4	20	158	1074	888	14
Future Vol, veh/h	4	20	158	1074	888	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	97	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	23	182	1234	1021	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2009	518	1037	0	-	0
Stage 1	1029	-	-	-	-	-
Stage 2	980	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	51	502	666	-	-	-
Stage 1	306	-	-	-	-	-
Stage 2	324	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	37	502	666	-	-	-
Mov Cap-2 Maneuver	37	-	-	-	-	-
Stage 1	306	-	-	-	-	-
Stage 2	235	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	31.7	1.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	666	-	162	-	-
HCM Lane V/C Ratio	0.273	-	0.17	-	-
HCM Control Delay (s)	12.4	-	31.7	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	1.1	-	0.6	-	-

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	39	0	0	7	0	1314	16	0	864	48
Future Vol, veh/h	0	0	39	0	0	7	0	1314	16	0	864	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	47	0	0	8	0	1583	19	0	1041	58
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1862	2672	549	2009	2692	801	1099	0	0	1602	0	0
Stage 1	1070	1070	-	1593	1593	-	-	-	-	-	-	-
Stage 2	792	1602	-	416	1099	-	-	-	-	-	-	-
Critical Hdwy	6.95	6.5	7.1	6.95	6.5	6.9	5.3	-	-	4.1	-	-
Critical Hdwy Stg 1	7.3	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.7	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4	3.9	3.65	4	3.3	3.1	-	-	2.2	-	-
Pot Cap-1 Maneuver	60	23	415	48	22	332	356	-	-	414	-	-
Stage 1	185	300	-	112	168	-	-	-	-	-	-	-
Stage 2	343	167	-	557	291	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	58	23	415	43	22	332	356	-	-	414	-	-
Mov Cap-2 Maneuver	58	23	-	43	22	-	-	-	-	-	-	-
Stage 1	185	300	-	112	168	-	-	-	-	-	-	-
Stage 2	334	167	-	494	291	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	14.8			16.1			0			0		
HCM LOS	B			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	356	-	-	415	332	414	-	-				
HCM Lane V/C Ratio	-	-	-	0.113	0.025	-	-	-				
HCM Control Delay (s)	0	-	-	14.8	16.1	0	-	-				
HCM Lane LOS	A	-	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	0	-	-				

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	322	0	547	199	721	0	0	529	402
Future Volume (veh/h)	0	0	0	322	0	547	199	721	0	0	529	402
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				388	203	524	240	869	0	0	637	484
Adj No. of Lanes				0	1	1	1	2	0	0	3	0
Peak Hour Factor				0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				434	227	581	277	1971	0	0	1231	575
Arrive On Green				0.37	0.37	0.37	0.05	0.18	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1184	619	1583	1774	3632	0	0	3558	1583
Grp Volume(v), veh/h				591	0	524	240	869	0	0	637	484
Grp Sat Flow(s),veh/h/ln				1804	0	1583	1774	1770	0	0	1695	1583
Q Serve(g_s), s				32.4	0.0	32.9	14.1	22.9	0.0	0.0	13.6	28.0
Cycle Q Clear(g_c), s				32.4	0.0	32.9	14.1	22.9	0.0	0.0	13.6	28.0
Prop In Lane				0.66		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				662	0	581	277	1971	0	0	1231	575
V/C Ratio(X)				0.89	0.00	0.90	0.87	0.44	0.00	0.00	0.52	0.84
Avail Cap(c_a), veh/h				739	0	648	355	1971	0	0	1231	575
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.33	1.33
Upstream Filter(I)				1.00	0.00	1.00	0.91	0.91	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.3	0.0	31.5	48.7	28.3	0.0	0.0	20.8	24.5
Incr Delay (d2), s/veh				12.4	0.0	14.9	15.2	0.7	0.0	0.0	1.6	14.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				18.4	0.0	16.7	8.1	11.4	0.0	0.0	6.6	14.4
LnGrp Delay(d),s/veh				43.7	0.0	46.4	63.9	29.0	0.0	0.0	22.4	38.5
LnGrp LOS				D		D	E	C			C	D
Approach Vol, veh/h					1115			1109			1121	
Approach Delay, s/veh					45.0			36.5			29.3	
Approach LOS					D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			20.4	42.1		42.5		62.5				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			21.0	29.0		43.0		54.0				
Max Q Clear Time (g_c+I1), s			16.1	30.0		34.9		24.9				
Green Ext Time (p_c), s			0.3	0.0		3.6		16.1				
Intersection Summary												
HCM 2010 Ctrl Delay			36.9									
HCM 2010 LOS			D									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			 	
Traffic Volume (veh/h)	445	2	551	0	0	0	0	463	209	255	568	0
Future Volume (veh/h)	445	2	551	0	0	0	0	463	209	255	568	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	473	2	586				0	493	222	271	604	0
Adj No. of Lanes	0	1	1				0	3	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	699	3	626				0	1116	484	300	1869	0
Arrive On Green	0.40	0.40	0.40				0.00	0.11	0.11	0.34	1.00	0.00
Sat Flow, veh/h	1767	7	1583				0	3645	1509	1774	3632	0
Grp Volume(v), veh/h	475	0	586				0	480	235	271	604	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1596	1774	1770	0
Q Serve(g_s), s	23.2	0.0	37.3				0.0	13.9	14.5	15.3	0.0	0.0
Cycle Q Clear(g_c), s	23.2	0.0	37.3				0.0	13.9	14.5	15.3	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.95	1.00		0.00
Lane Grp Cap(c), veh/h	702	0	626				0	1088	512	300	1869	0
V/C Ratio(X)	0.68	0.00	0.94				0.00	0.44	0.46	0.90	0.32	0.00
Avail Cap(c_a), veh/h	744	0	663				0	1088	512	439	1869	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.90	0.90	0.72	0.72	0.00
Uniform Delay (d), s/veh	26.2	0.0	30.4				0.0	38.1	38.4	33.9	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	20.1				0.0	1.2	2.6	12.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	0.0	19.8				0.0	6.7	6.8	8.5	0.1	0.0
LnGrp Delay(d),s/veh	28.5	0.0	50.5				0.0	39.3	41.0	46.4	0.3	0.0
LnGrp LOS	C		D					D	D	D	A	
Approach Vol, veh/h		1061						715			875	
Approach Delay, s/veh		40.7						39.9			14.6	
Approach LOS		D						D			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		45.5		59.5			21.8	37.7				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		44.0		53.0			26.0	23.0				
Max Q Clear Time (g_c+I1), s		39.3		2.0			17.3	16.5				
Green Ext Time (p_c), s		2.3		10.7			0.5	4.0				
Intersection Summary												
HCM 2010 Ctrl Delay			31.8									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	418	39	38	119	94	19	442	28	346	699	95
Future Volume (veh/h)	103	418	39	38	119	94	19	442	28	346	699	95
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	113	459	43	42	131	103	21	486	31	380	768	104
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	581	54	53	250	183	31	1385	88	408	1950	264
Arrive On Green	0.08	0.18	0.18	0.03	0.13	0.13	0.02	0.41	0.41	0.46	1.00	1.00
Sat Flow, veh/h	1774	3273	305	1774	1953	1427	1774	3379	215	1774	3133	424
Grp Volume(v), veh/h	113	247	255	42	118	116	21	254	263	380	434	438
Grp Sat Flow(s),veh/h/ln	1774	1770	1809	1774	1770	1611	1774	1770	1825	1774	1770	1788
Q Serve(g_s), s	6.6	14.0	14.1	2.5	6.5	7.1	1.2	10.4	10.4	21.3	0.0	0.0
Cycle Q Clear(g_c), s	6.6	14.0	14.1	2.5	6.5	7.1	1.2	10.4	10.4	21.3	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.89	1.00		0.12	1.00		0.24
Lane Grp Cap(c), veh/h	141	314	321	53	227	206	31	726	748	408	1102	1113
V/C Ratio(X)	0.80	0.79	0.79	0.79	0.52	0.56	0.68	0.35	0.35	0.93	0.39	0.39
Avail Cap(c_a), veh/h	220	388	396	101	270	245	84	726	748	591	1102	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87	0.80	0.80	0.80
Uniform Delay (d), s/veh	47.5	41.3	41.3	50.6	42.7	43.0	51.3	21.3	21.4	27.6	0.0	0.0
Incr Delay (d2), s/veh	10.9	8.4	8.6	21.8	1.8	2.4	20.2	1.2	1.1	14.4	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	7.6	7.8	1.5	3.3	3.3	0.8	5.3	5.5	11.9	0.3	0.3
LnGrp Delay(d),s/veh	58.5	49.7	50.0	72.4	44.6	45.4	71.5	22.5	22.5	42.0	0.8	0.8
LnGrp LOS	E	D	D	E	D	D	E	C	C	D	A	A
Approach Vol, veh/h		615			276			538			1252	
Approach Delay, s/veh		51.4			49.2			24.4			13.3	
Approach LOS		D			D			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+Rc), s	7.2	22.6	5.8	69.4	12.3	17.5	28.1	47.0				
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	6.0	23.0	5.0	55.0	13.0	16.0	35.0	25.0				
Max Q Clear Time (g_c+I1), s	4.5	16.1	3.2	2.0	8.6	9.1	23.3	12.4				
Green Ext Time (p_c), s	0.0	2.5	0.0	10.3	0.1	2.5	0.9	6.3				
Intersection Summary												
HCM 2010 Ctrl Delay			28.0									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	176	10	4	178	120	12	361	13	115	135	51
Future Volume (veh/h)	111	176	10	4	178	120	12	361	13	115	135	51
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	141	223	13	5	225	152	15	457	16	146	171	65
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	970	56	9	391	253	26	1118	39	185	1040	381
Arrive On Green	0.10	0.29	0.29	0.01	0.19	0.19	0.01	0.32	0.32	0.10	0.41	0.41
Sat Flow, veh/h	1774	3400	197	1774	2061	1336	1774	3489	122	1774	2538	931
Grp Volume(v), veh/h	141	115	121	5	192	185	15	231	242	146	117	119
Grp Sat Flow(s),veh/h/ln	1774	1770	1828	1774	1770	1627	1774	1770	1841	1774	1770	1699
Q Serve(g_s), s	4.4	2.8	2.8	0.2	5.5	5.8	0.5	5.7	5.8	4.5	2.4	2.5
Cycle Q Clear(g_c), s	4.4	2.8	2.8	0.2	5.5	5.8	0.5	5.7	5.8	4.5	2.4	2.5
Prop In Lane	1.00		0.11	1.00		0.82	1.00		0.07	1.00		0.55
Lane Grp Cap(c), veh/h	179	505	521	9	336	309	26	567	590	185	725	696
V/C Ratio(X)	0.79	0.23	0.23	0.53	0.57	0.60	0.57	0.41	0.41	0.79	0.16	0.17
Avail Cap(c_a), veh/h	190	662	684	126	599	550	126	567	590	190	725	696
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	15.4	15.4	27.9	20.7	20.8	27.5	14.9	14.9	24.6	10.5	10.5
Incr Delay (d2), s/veh	18.8	0.2	0.2	38.7	1.5	1.9	17.8	2.2	2.1	19.5	0.5	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	3.0	1.4	1.4	0.2	2.8	2.8	0.4	3.1	3.2	3.2	1.2	1.3
LnGrp Delay(d),s/veh	43.5	15.6	15.6	66.6	22.2	22.7	45.3	17.1	17.0	44.1	11.0	11.0
LnGrp LOS	D	B	B	E	C	C	D	B	B	D	B	B
Approach Vol, veh/h		377			382			488			382	
Approach Delay, s/veh		26.0			23.0			17.9			23.6	
Approach LOS		C			C			B			C	
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	4.3	20.0	4.8	27.0	9.7	14.7	9.8	22.0				
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	4.0	21.0	4.0	20.0	6.0	19.0	6.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	4.8	2.5	4.5	6.4	7.8	6.5	7.8				
Green Ext Time (p_c), s	0.0	3.4	0.0	3.4	0.0	2.8	0.0	2.8				
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)	116	779	90	74	502	113	81	403	98	105	266	93
Future Volume (veh/h)	116	779	90	74	502	113	81	403	98	105	266	93
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	140	939	108	89	605	136	98	486	118	127	320	112
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	1113	128	114	897	201	125	691	167	145	661	227
Arrive On Green	0.10	0.35	0.35	0.06	0.31	0.31	0.07	0.24	0.24	0.08	0.26	0.26
Sat Flow, veh/h	1774	3199	368	1774	2874	645	1774	2829	683	1774	2586	889
Grp Volume(v), veh/h	140	519	528	89	372	369	98	303	301	127	217	215
Grp Sat Flow(s),veh/h/ln	1774	1770	1798	1774	1770	1749	1774	1770	1742	1774	1770	1706
Q Serve(g_s), s	4.7	16.5	16.5	3.0	11.2	11.2	3.3	9.5	9.6	4.3	6.4	6.6
Cycle Q Clear(g_c), s	4.7	16.5	16.5	3.0	11.2	11.2	3.3	9.5	9.6	4.3	6.4	6.6
Prop In Lane	1.00		0.20	1.00		0.37	1.00		0.39	1.00		0.52
Lane Grp Cap(c), veh/h	177	616	626	114	553	546	125	432	425	145	452	436
V/C Ratio(X)	0.79	0.84	0.84	0.78	0.67	0.68	0.78	0.70	0.71	0.87	0.48	0.49
Avail Cap(c_a), veh/h	203	637	648	116	553	546	145	522	513	145	522	503
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	18.4	18.4	28.2	18.3	18.3	27.9	21.1	21.1	27.7	19.3	19.4
Incr Delay (d2), s/veh	16.7	9.8	9.7	28.2	3.2	3.3	20.9	3.3	3.5	40.4	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	9.8	9.9	2.4	6.0	5.9	2.4	5.0	5.0	3.7	3.2	3.1
LnGrp Delay(d),s/veh	43.6	28.2	28.1	56.3	21.5	21.6	48.8	24.3	24.6	68.2	20.1	20.2
LnGrp LOS	D	C	C	E	C	C	D	C	C	E	C	C
Approach Vol, veh/h		1187			830			702			559	
Approach Delay, s/veh		29.9			25.3			27.9			31.1	
Approach LOS		C			C			C			C	
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	7.9	25.3	8.3	19.6	10.1	23.1	9.0	18.9				
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	4.0	22.0	5.0	18.0	7.0	19.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.0	18.5	5.3	8.6	6.7	13.2	6.3	11.6				
Green Ext Time (p_c), s	0.0	2.7	0.0	4.3	0.0	4.4	0.0	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay			28.5									
HCM 2010 LOS			C									

Existing Conditions - AM Peak Hour
11: Overland Street & Magnolia Avenue

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	879	150	93	603	35	12	13	4	30	96	58
Future Volume (veh/h)	34	879	150	93	603	35	12	13	4	30	96	58
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	38	988	169	104	678	39	13	15	4	34	108	65
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	572	1951	333	394	2195	126	193	180	37	127	170	92
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	731	3024	517	484	3402	196	448	1051	214	181	990	536
Grp Volume(v), veh/h	38	578	579	104	352	365	32	0	0	207	0	0
Grp Sat Flow(s),veh/h/ln	731	1770	1772	484	1770	1828	1713	0	0	1706	0	0
Q Serve(g_s), s	1.1	7.5	7.5	6.3	3.8	3.9	0.0	0.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	4.9	7.5	7.5	13.8	3.8	3.9	0.6	0.0	0.0	4.9	0.0	0.0
Prop In Lane	1.00		0.29	1.00		0.11	0.41		0.12	0.16		0.31
Lane Grp Cap(c), veh/h	572	1141	1143	394	1141	1179	410	0	0	389	0	0
V/C Ratio(X)	0.07	0.51	0.51	0.26	0.31	0.31	0.08	0.00	0.00	0.53	0.00	0.00
Avail Cap(c_a), veh/h	671	1380	1381	459	1380	1426	772	0	0	793	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	4.5	4.1	4.1	7.7	3.4	3.4	15.2	0.0	0.0	17.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.4	0.2	0.1	0.1	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.6	3.7	0.9	1.9	2.0	0.3	0.0	0.0	2.5	0.0	0.0
LnGrp Delay(d),s/veh	4.6	4.4	4.4	8.1	3.6	3.6	15.3	0.0	0.0	18.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B			B		
Approach Vol, veh/h	1195			821			32			207		
Approach Delay, s/veh	4.4			4.2			15.3			18.1		
Approach LOS	A			A			B			B		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	32.1		11.5		32.1		11.5					
Change Period (Y+Rc), s	4.0		4.0		4.0		4.0					
Max Green Setting (Gmax), s	34.0		18.0		34.0		18.0					
Max Q Clear Time (g_c+I1), s	9.5		6.9		15.8		2.6					
Green Ext Time (p_c), s	15.1		1.0		12.3		1.2					
Intersection Summary												
HCM 2010 Ctrl Delay				5.7								
HCM 2010 LOS				A								

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	694	97	94	328	51	159	237	136	87	277	56
Future Volume (veh/h)	86	694	97	94	328	51	159	237	136	87	277	56
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	901	126	122	426	66	206	308	177	113	360	73
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	1074	150	152	1068	164	241	636	540	143	431	87
Arrive On Green	0.08	0.34	0.34	0.08	0.34	0.34	0.13	0.33	0.33	0.08	0.28	0.28
Sat Flow, veh/h	1737	3182	445	1810	3137	483	1810	1900	1615	1810	1534	311
Grp Volume(v), veh/h	112	511	516	122	244	248	206	308	177	113	0	433
Grp Sat Flow(s),veh/h/ln	1737	1805	1821	1810	1805	1815	1810	1900	1615	1810	0	1845
Q Serve(g_s), s	6.2	25.5	25.5	6.4	10.0	10.2	10.8	12.5	8.0	6.0	0.0	21.4
Cycle Q Clear(g_c), s	6.2	25.5	25.5	6.4	10.0	10.2	10.8	12.5	8.0	6.0	0.0	21.4
Prop In Lane	1.00		0.24	1.00		0.27	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	141	609	615	152	615	618	241	636	540	143	0	518
V/C Ratio(X)	0.79	0.84	0.84	0.80	0.40	0.40	0.86	0.48	0.33	0.79	0.00	0.84
Avail Cap(c_a), veh/h	286	687	693	205	615	618	298	703	598	279	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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.9	29.8	29.8	43.7	24.5	24.5	41.2	25.7	24.2	44.0	0.0	32.9
Incr Delay (d2), s/veh	9.7	8.3	8.2	14.9	0.4	0.4	17.9	0.6	0.4	9.2	0.0	7.3
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	3.3	14.0	14.2	3.9	5.1	5.2	6.6	6.7	3.6	3.3	0.0	12.0
LnGrp Delay(d),s/veh	53.5	38.1	38.0	58.7	24.9	24.9	59.1	26.3	24.5	53.1	0.0	40.2
LnGrp LOS	D	D	D	E	C	C	E	C	C	D		D
Approach Vol, veh/h		1139			614			691			546	
Approach Delay, s/veh		39.6			31.6			35.6			42.9	
Approach LOS		D			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	12.2	36.8	16.9	31.3	11.9	37.1	11.7	36.5				
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	11.0	37.0	16.0	35.0	16.0	32.0	15.0	36.0				
Max Q Clear Time (g_c+I1), s	8.4	27.5	12.8	23.4	8.2	12.2	8.0	14.5				
Green Ext Time (p_c), s	0.1	5.4	0.2	3.9	0.1	9.3	0.1	5.0				
Intersection Summary												
HCM 2010 Ctrl Delay				37.6								
HCM 2010 LOS				D								

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑		↑	↑↑	↑	↑		
Traffic Volume (veh/h)	714	169	285	544	30	73		
Future Volume (veh/h)	714	169	285	544	30	73		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	793	188	317	604	33	81		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1304	309	394	2696	136	121		
Arrive On Green	0.46	0.46	0.22	0.76	0.08	0.08		
Sat Flow, veh/h	2933	673	1774	3632	1774	1583		
Grp Volume(v), veh/h	494	487	317	604	33	81		
Grp Sat Flow(s),veh/h/ln	1770	1744	1774	1770	1774	1583		
Q Serve(g_s), s	10.4	10.4	8.4	2.4	0.9	2.5		
Cycle Q Clear(g_c), s	10.4	10.4	8.4	2.4	0.9	2.5		
Prop In Lane		0.39	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	812	800	394	2696	136	121		
V/C Ratio(X)	0.61	0.61	0.81	0.22	0.24	0.67		
Avail Cap(c_a), veh/h	1180	1163	825	4292	1147	1024		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	10.0	10.0	18.2	1.7	21.5	22.2		
Incr Delay (d2), s/veh	0.7	0.8	3.9	0.0	0.9	6.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.1	5.0	4.5	1.2	0.5	1.3		
LnGrp Delay(d),s/veh	10.8	10.8	22.1	1.7	22.4	28.4		
LnGrp LOS	B	B	C	A	C	C		
Approach Vol, veh/h	981			921	114			
Approach Delay, s/veh	10.8			8.8	26.7			
Approach LOS	B			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.0	26.7				41.7		7.8
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	23.0	33.0				60.0		32.0
Max Q Clear Time (g_c+I1), s	10.4	12.4				4.4		4.5
Green Ext Time (p_c), s	0.7	10.3				14.6		0.3
Intersection Summary								
HCM 2010 Ctrl Delay			10.8					
HCM 2010 LOS			B					

Existing Conditions - AM Peak Hour
14: Jefferson Street & Magnolia Avenue

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	794	74	63	489	107	99	135	64	104	138	98
Future Volume (veh/h)	65	794	74	63	489	107	99	135	64	104	138	98
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	81	992	92	79	611	134	124	169	80	130	172	122
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	1186	110	100	1042	228	152	266	126	152	226	160
Arrive On Green	0.06	0.36	0.36	0.06	0.36	0.36	0.09	0.22	0.22	0.09	0.22	0.22
Sat Flow, veh/h	1774	3275	304	1774	2889	632	1774	1196	566	1774	1015	720
Grp Volume(v), veh/h	81	536	548	79	374	371	124	0	249	130	0	294
Grp Sat Flow(s),veh/h/ln	1774	1770	1809	1774	1770	1751	1774	0	1763	1774	0	1736
Q Serve(g_s), s	2.6	16.2	16.2	2.6	10.0	10.1	4.0	0.0	7.5	4.2	0.0	9.3
Cycle Q Clear(g_c), s	2.6	16.2	16.2	2.6	10.0	10.1	4.0	0.0	7.5	4.2	0.0	9.3
Prop In Lane	1.00		0.17	1.00		0.36	1.00		0.32	1.00		0.41
Lane Grp Cap(c), veh/h	103	641	655	100	638	631	152	0	392	152	0	386
V/C Ratio(X)	0.79	0.84	0.84	0.79	0.59	0.59	0.82	0.00	0.63	0.86	0.00	0.76
Avail Cap(c_a), veh/h	152	665	680	121	638	631	152	0	542	152	0	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.2	17.1	17.1	27.3	15.2	15.2	26.3	0.0	20.6	26.4	0.0	21.3
Incr Delay (d2), s/veh	15.0	8.9	8.7	24.1	1.4	1.4	28.3	0.0	1.7	35.7	0.0	4.2
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	1.7	9.5	9.7	1.9	5.1	5.1	3.2	0.0	3.8	3.6	0.0	4.9
LnGrp Delay(d),s/veh	42.2	26.0	25.8	51.4	16.6	16.6	54.6	0.0	22.3	62.1	0.0	25.5
LnGrp LOS	D	C	C	D	B	B	D		C	E		C
Approach Vol, veh/h		1165			824			373			424	
Approach Delay, s/veh		27.0			19.9			33.1			36.7	
Approach LOS		C			B			C			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	7.3	25.2	9.0	17.0	7.4	25.1	9.0	17.0				
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	4.0	22.0	5.0	18.0	5.0	21.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.6	18.2	6.0	11.3	4.6	12.1	6.2	9.5				
Green Ext Time (p_c), s	0.0	3.0	0.0	1.7	0.0	6.4	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			27.2									
HCM 2010 LOS			C									

Intersection												
Int Delay, s/veh	1.7											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	7	0	61	0	495	76	69	440	0
Future Vol, veh/h	0	0	0	7	0	61	0	495	76	69	440	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	9	0	75	0	611	94	85	543	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1410	1419	543	1372	1372	658	543	0	0	705	0	0
Stage 1	714	714	-	658	658	-	-	-	-	-	-	-
Stage 2	696	705	-	714	714	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	116	137	540	123	146	464	1026	-	-	893	-	-
Stage 1	422	435	-	453	461	-	-	-	-	-	-	-
Stage 2	432	439	-	422	435	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	87	118	540	110	126	464	1026	-	-	893	-	-
Mov Cap-2 Maneuver	87	118	-	110	126	-	-	-	-	-	-	-
Stage 1	422	376	-	453	461	-	-	-	-	-	-	-
Stage 2	362	439	-	365	376	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	18.6	0	1.3
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1026	-	-	- 349	893	-	-
HCM Lane V/C Ratio	-	-	-	- 0.241	0.095	-	-
HCM Control Delay (s)	0	-	-	0 18.6	9.5	0	-
HCM Lane LOS	A	-	-	A C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	- 0.9	0.3	-	-

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	56	98	60	106	4	8
Future Vol, veh/h	56	98	60	106	4	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	131	80	141	5	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	221	0	431
Stage 1	-	-	151
Stage 2	-	-	280
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1348	-	581
Stage 1	-	-	877
Stage 2	-	-	767
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1348	-	546
Mov Cap-2 Maneuver	-	-	546
Stage 1	-	-	877
Stage 2	-	-	721

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1348	-	-	-	738
HCM Lane V/C Ratio	0.055	-	-	-	0.022
HCM Control Delay (s)	7.8	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Intersection

Int Delay, s/veh 5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	30	46	60	3	0	117
Future Vol, veh/h	30	46	60	3	0	117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	61	79	4	0	154

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	83	0	220
Stage 1	-	-	81
Stage 2	-	-	139
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1514	-	768
Stage 1	-	-	942
Stage 2	-	-	888
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1514	-	747
Mov Cap-2 Maneuver	-	-	747
Stage 1	-	-	942
Stage 2	-	-	864

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1514	-	-	-	979
HCM Lane V/C Ratio	0.026	-	-	-	0.157
HCM Control Delay (s)	7.4	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Existing Conditions - PM Peak Hour
1: Adams Street & Garfield Street

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	10	37	24	4	17	40	703	32	18	536	17
Future Volume (veh/h)	25	10	37	24	4	17	40	703	32	18	536	17
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	26	10	38	24	4	17	41	717	33	18	547	17
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	17	66	230	12	49	67	1906	88	33	1871	58
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.04	0.55	0.55	0.02	0.53	0.53
Sat Flow, veh/h	571	219	834	881	147	624	1774	3446	159	1774	3504	109
Grp Volume(v), veh/h	74	0	0	45	0	0	41	368	382	18	276	288
Grp Sat Flow(s),veh/h/ln	1624	0	0	1652	0	0	1774	1770	1835	1774	1770	1844
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	0.8	4.0	4.0	0.3	3.0	3.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.8	0.0	0.0	0.8	4.0	4.0	0.3	3.0	3.0
Prop In Lane	0.35		0.51	0.53		0.38	1.00		0.09	1.00		0.06
Lane Grp Cap(c), veh/h	270	0	0	291	0	0	67	979	1015	33	945	984
V/C Ratio(X)	0.27	0.00	0.00	0.15	0.00	0.00	0.61	0.38	0.38	0.55	0.29	0.29
Avail Cap(c_a), veh/h	1044	0	0	1030	0	0	258	979	1015	207	945	984
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	0.0	14.9	0.0	0.0	16.3	4.3	4.3	16.7	4.4	4.4
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.2	0.0	0.0	8.8	1.1	1.1	13.8	0.8	0.8
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	0.0	0.4	0.0	0.0	0.5	2.2	2.3	0.3	1.6	1.6
LnGrp Delay(d),s/veh	15.7	0.0	0.0	15.2	0.0	0.0	25.0	5.4	5.4	30.5	5.2	5.2
LnGrp LOS	B			B			C	A	A	C	A	A
Approach Vol, veh/h		74			45			791			582	
Approach Delay, s/veh		15.7			15.2			6.4			6.0	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.7	5.3	22.3		6.7	4.6	23.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		20.0	5.0	18.0		20.0	4.0	19.0				
Max Q Clear Time (g_c+l1), s		3.4	2.8	5.0		2.8	2.3	6.0				
Green Ext Time (p_c), s		0.5	0.0	6.0		0.5	0.0	6.0				
Intersection Summary												
HCM 2010 Ctrl Delay			7.0									
HCM 2010 LOS			A									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	876	381	142	875	134	454	442	161	174	378	85
Future Volume (veh/h)	124	876	381	142	875	134	454	442	161	174	378	85
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1895	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	127	894	389	145	893	137	463	451	164	178	386	87
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	155	948	409	176	1226	188	526	835	396	211	590	132
Arrive On Green	0.09	0.39	0.39	0.10	0.39	0.39	0.15	0.24	0.24	0.12	0.21	0.21
Sat Flow, veh/h	1703	2457	1061	1810	3130	480	3510	3539	1680	1774	2877	642
Grp Volume(v), veh/h	127	655	628	145	514	516	463	451	164	178	236	237
Grp Sat Flow(s),veh/h/ln	1703	1805	1713	1810	1800	1810	1755	1770	1680	1774	1770	1749
Q Serve(g_s), s	7.2	34.5	35.1	7.8	24.0	24.0	12.7	11.0	8.2	9.7	12.1	12.3
Cycle Q Clear(g_c), s	7.2	34.5	35.1	7.8	24.0	24.0	12.7	11.0	8.2	9.7	12.1	12.3
Prop In Lane	1.00		0.62	1.00		0.27	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	155	696	661	176	705	709	526	835	396	211	363	359
V/C Ratio(X)	0.82	0.94	0.95	0.82	0.73	0.73	0.88	0.54	0.41	0.84	0.65	0.66
Avail Cap(c_a), veh/h	207	713	677	183	705	709	533	1255	596	270	627	620
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	29.2	29.4	43.7	25.6	25.6	41.1	33.0	31.9	42.6	36.0	36.1
Incr Delay (d2), s/veh	16.9	20.3	22.9	24.7	3.8	3.8	15.4	0.5	0.7	17.2	2.0	2.1
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	4.1	21.0	20.8	5.1	12.6	12.7	7.3	5.5	3.9	5.8	6.1	6.1
LnGrp Delay(d),s/veh	60.9	49.6	52.2	68.4	29.4	29.4	56.5	33.6	32.6	59.8	38.0	38.2
LnGrp LOS	E	D	D	E	C	C	E	C	C	E	D	D
Approach Vol, veh/h		1410			1175			1078			651	
Approach Delay, s/veh		51.8			34.2			43.3			44.0	
Approach LOS		D			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	13.6	42.1	18.8	24.2	13.0	42.7	15.7	27.3				
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	10.0	39.0	15.0	35.0	12.0	37.0	15.0	35.0				
Max Q Clear Time (g_c+I1), s	9.8	37.1	14.7	14.3	9.2	26.0	11.7	13.0				
Green Ext Time (p_c), s	0.0	1.0	0.1	5.9	0.1	9.0	0.1	6.1				
Intersection Summary												
HCM 2010 Ctrl Delay			43.7									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	7	67	27	2	14	35	950	16	8	843	74
Future Volume (veh/h)	98	7	67	27	2	14	35	950	16	8	843	74
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1937	1900	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	105	8	72	29	2	15	38	1022	17	9	906	80
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	17	90	182	24	70	48	2564	43	16	2308	204
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.03	0.72	0.72	0.01	0.70	0.70
Sat Flow, veh/h	852	121	619	830	162	480	1774	3563	59	1774	3291	291
Grp Volume(v), veh/h	185	0	0	46	0	0	38	508	531	9	487	499
Grp Sat Flow(s),veh/h/ln	1592	0	0	1472	0	0	1774	1770	1852	1774	1770	1811
Q Serve(g_s), s	8.2	0.0	0.0	0.0	0.0	0.0	2.0	10.7	10.7	0.5	10.8	10.8
Cycle Q Clear(g_c), s	10.6	0.0	0.0	2.4	0.0	0.0	2.0	10.7	10.7	0.5	10.8	10.8
Prop In Lane	0.57		0.39	0.63		0.33	1.00		0.03	1.00		0.16
Lane Grp Cap(c), veh/h	290	0	0	275	0	0	48	1274	1333	16	1241	1271
V/C Ratio(X)	0.64	0.00	0.00	0.17	0.00	0.00	0.79	0.40	0.40	0.57	0.39	0.39
Avail Cap(c_a), veh/h	585	0	0	557	0	0	467	1274	1333	411	1241	1271
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	39.1	0.0	0.0	35.7	0.0	0.0	45.9	5.2	5.2	46.9	5.8	5.8
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.3	0.0	0.0	24.0	0.9	0.9	17.5	0.5	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	4.9	0.0	0.0	1.1	0.0	0.0	1.3	5.5	5.8	0.3	5.3	5.5
LnGrp Delay(d),s/veh	41.4	0.0	0.0	35.9	0.0	0.0	69.9	6.2	6.1	64.3	6.4	6.4
LnGrp LOS	D			D			E	A	A	E	A	A
Approach Vol, veh/h		185			46			1077			995	
Approach Delay, s/veh		41.4			35.9			8.4			6.9	
Approach LOS		D			D			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.8	6.6	70.6		17.8	4.8	72.4				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		32.0	25.0	26.0		32.0	22.0	29.0				
Max Q Clear Time (g_c+I1), s		12.6	4.0	12.8		4.4	2.5	12.7				
Green Ext Time (p_c), s		1.3	0.1	9.1		1.4	0.0	10.6				
Intersection Summary												
HCM 2010 Ctrl Delay			11.0									
HCM 2010 LOS			B									

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	3	89	90	999	928	17
Future Vol, veh/h	3	89	90	999	928	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	97	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	94	95	1052	977	18

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1701	497	995 0
Stage 1	986	-	- -
Stage 2	715	-	- -
Critical Hdwy	6.84	6.94	4.14 -
Critical Hdwy Stg 1	5.84	-	- -
Critical Hdwy Stg 2	5.84	-	- -
Follow-up Hdwy	3.52	3.32	2.22 -
Pot Cap-1 Maneuver	83	519	691 -
Stage 1	322	-	- -
Stage 2	446	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	72	519	691 -
Mov Cap-2 Maneuver	72	-	- -
Stage 1	322	-	- -
Stage 2	385	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	15.7	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	691	-	432	-	-
HCM Lane V/C Ratio	0.137	-	0.224	-	-
HCM Control Delay (s)	11	-	15.7	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.5	-	0.8	-	-

Intersection												
Int Delay, s/veh	0.9											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	115	0	0	9	0	1095	39	0	1026	22
Future Vol, veh/h	0	0	115	0	0	9	0	1095	39	0	1026	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	120	0	0	9	0	1141	41	0	1069	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1650	2261	546	1589	2253	591	1092	0	0	1181	0	0
Stage 1	1080	1080	-	1161	1161	-	-	-	-	-	-	-
Stage 2	570	1181	-	428	1092	-	-	-	-	-	-	-
Critical Hdwy	6.95	6.5	7.1	6.95	6.5	6.9	5.3	-	-	4.1	-	-
Critical Hdwy Stg 1	7.3	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.7	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4	3.9	3.65	4	3.3	3.1	-	-	2.2	-	-
Pot Cap-1 Maneuver	84	42	417	92	42	455	359	-	-	599	-	-
Stage 1	182	297	-	206	272	-	-	-	-	-	-	-
Stage 2	464	266	-	548	293	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	82	42	417	66	42	455	359	-	-	599	-	-
Mov Cap-2 Maneuver	82	42	-	66	42	-	-	-	-	-	-	-
Stage 1	182	297	-	206	272	-	-	-	-	-	-	-
Stage 2	454	266	-	391	293	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.1	13.1	0	0
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	359	-	-	417 455	599	-	-
HCM Lane V/C Ratio	-	-	-	0.287 0.021	-	-	-
HCM Control Delay (s)	0	-	-	17.1 13.1	0	-	-
HCM Lane LOS	A	-	-	C B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.2 0.1	0	-	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	205	0	403	327	673	0	0	630	458
Future Volume (veh/h)	0	0	0	205	0	403	327	673	0	0	630	458
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				211	153	313	337	694	0	0	649	472
Adj No. of Lanes				0	1	1	1	2	0	0	3	0
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				243	176	367	368	2436	0	0	1495	698
Arrive On Green				0.23	0.23	0.23	0.41	1.00	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1049	761	1583	1774	3632	0	0	3558	1583
Grp Volume(v), veh/h				364	0	313	337	694	0	0	649	472
Grp Sat Flow(s),veh/h/ln				1810	0	1583	1774	1770	0	0	1695	1583
Q Serve(g_s), s				19.3	0.0	18.9	17.9	0.0	0.0	0.0	13.2	23.7
Cycle Q Clear(g_c), s				19.3	0.0	18.9	17.9	0.0	0.0	0.0	13.2	23.7
Prop In Lane				0.58		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				420	0	367	368	2436	0	0	1495	698
V/C Ratio(X)				0.87	0.00	0.85	0.92	0.28	0.00	0.00	0.43	0.68
Avail Cap(c_a), veh/h				507	0	443	568	2436	0	0	1495	698
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.52	0.52	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.9	0.0	36.8	28.5	0.0	0.0	0.0	19.3	22.3
Incr Delay (d2), s/veh				12.9	0.0	12.8	8.3	0.2	0.0	0.0	0.9	5.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.2	0.0	9.6	9.5	0.1	0.0	0.0	6.3	11.4
LnGrp Delay(d),s/veh				49.8	0.0	49.6	36.8	0.2	0.0	0.0	20.2	27.4
LnGrp LOS				D		D	D	A			C	C
Approach Vol, veh/h					677			1031			1121	
Approach Delay, s/veh					49.7			12.1			23.3	
Approach LOS					D			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			24.7	48.1		27.2		72.8				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			32.0	28.0		28.0		64.0				
Max Q Clear Time (g_c+I1), s			19.9	25.7		21.3		2.0				
Green Ext Time (p_c), s			0.8	1.9		1.8		18.6				
Intersection Summary												
HCM 2010 Ctrl Delay			25.5									
HCM 2010 LOS			C									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			 	
Traffic Volume (veh/h)	612	9	650	0	0	0	0	394	345	447	392	0
Future Volume (veh/h)	612	9	650	0	0	0	0	394	345	447	392	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	658	10	699				0	424	371	481	422	0
Adj No. of Lanes	0	1	1				0	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	699	11	633				0	635	296	519	1840	0
Arrive On Green	0.40	0.40	0.40				0.00	0.19	0.19	0.10	0.17	0.00
Sat Flow, veh/h	1749	27	1583				0	3558	1583	1774	3632	0
Grp Volume(v), veh/h	668	0	699				0	424	371	481	422	0
Grp Sat Flow(s),veh/h/ln	1775	0	1583				0	1695	1583	1774	1770	0
Q Serve(g_s), s	36.2	0.0	40.0				0.0	11.6	18.7	26.9	10.3	0.0
Cycle Q Clear(g_c), s	36.2	0.0	40.0				0.0	11.6	18.7	26.9	10.3	0.0
Prop In Lane	0.99		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	710	0	633				0	635	296	519	1840	0
V/C Ratio(X)	0.94	0.00	1.10				0.00	0.67	1.25	0.93	0.23	0.00
Avail Cap(c_a), veh/h	710	0	633				0	635	296	550	1840	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.79	0.79	0.82	0.82	0.00
Uniform Delay (d), s/veh	28.9	0.0	30.0				0.0	37.8	40.6	44.1	24.1	0.0
Incr Delay (d2), s/veh	20.6	0.0	67.6				0.0	4.4	133.4	18.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.7	0.0	29.3				0.0	5.8	19.1	15.9	5.1	0.0
LnGrp Delay(d),s/veh	49.4	0.0	97.6				0.0	42.1	174.1	62.5	24.4	0.0
LnGrp LOS	D		F					D	F	E	C	
Approach Vol, veh/h		1367						795			903	
Approach Delay, s/veh		74.0						103.7			44.7	
Approach LOS		E						F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		44.0		56.0			33.3	22.7				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		40.0		52.0			31.0	17.0				
Max Q Clear Time (g_c+I1), s		42.0		12.3			28.9	20.7				
Green Ext Time (p_c), s		0.0		9.3			0.4	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			73.1									
HCM 2010 LOS			E									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	321	52	33	202	183	37	422	46	261	609	137
Future Volume (veh/h)	169	321	52	33	202	183	37	422	46	261	609	137
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	194	369	60	38	232	210	43	485	53	300	700	157
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	790	127	53	313	271	223	828	90	401	1027	230
Arrive On Green	0.11	0.26	0.26	0.03	0.17	0.17	0.13	0.26	0.26	0.23	0.36	0.36
Sat Flow, veh/h	1774	3053	492	1774	1799	1558	1774	3220	351	1774	2874	644
Grp Volume(v), veh/h	194	213	216	38	228	214	43	266	272	300	431	426
Grp Sat Flow(s),veh/h/ln	1774	1770	1776	1774	1770	1588	1774	1770	1801	1774	1770	1749
Q Serve(g_s), s	7.6	7.1	7.2	1.5	8.5	9.0	1.5	9.2	9.3	11.0	14.5	14.5
Cycle Q Clear(g_c), s	7.6	7.1	7.2	1.5	8.5	9.0	1.5	9.2	9.3	11.0	14.5	14.5
Prop In Lane	1.00		0.28	1.00		0.98	1.00		0.19	1.00		0.37
Lane Grp Cap(c), veh/h	203	458	459	53	308	277	223	455	463	401	632	625
V/C Ratio(X)	0.96	0.46	0.47	0.72	0.74	0.77	0.19	0.58	0.59	0.75	0.68	0.68
Avail Cap(c_a), veh/h	203	480	482	127	404	363	223	455	463	401	632	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)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.77	0.77	0.77
Uniform Delay (d), s/veh	30.8	21.9	21.9	33.7	27.4	27.6	27.4	22.7	22.8	25.2	19.1	19.1
Incr Delay (d2), s/veh	50.8	0.7	0.8	16.5	5.0	7.4	0.4	5.3	5.3	6.0	4.6	4.6
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	6.6	3.5	3.6	1.0	4.6	4.5	0.8	5.2	5.3	6.1	7.9	7.8
LnGrp Delay(d),s/veh	81.6	22.6	22.7	50.2	32.4	35.0	27.8	28.1	28.1	31.2	23.7	23.8
LnGrp LOS	F	C	C	D	C	C	C	C	C	C	C	C
Approach Vol, veh/h		623			480			581			1157	
Approach Delay, s/veh		41.0			35.0			28.0			25.7	
Approach LOS		D			C			C			C	
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	22.1	12.8	29.0	12.0	16.2	19.8	22.0				
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	5.0	19.0	5.0	25.0	8.0	16.0	12.0	18.0				
Max Q Clear Time (g_c+I1), s	3.5	9.2	3.5	16.5	9.6	11.0	13.0	11.3				
Green Ext Time (p_c), s	0.0	2.3	0.2	3.2	0.0	1.2	0.0	1.6				
Intersection Summary												
HCM 2010 Ctrl Delay			31.1									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	134	13	11	254	71	4	124	7	119	288	93
Future Volume (veh/h)	51	134	13	11	254	71	4	124	7	119	288	93
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	62	163	16	13	310	87	5	151	9	145	351	113
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	740	72	23	533	147	10	1178	70	186	1180	374
Arrive On Green	0.05	0.23	0.23	0.01	0.19	0.19	0.01	0.35	0.35	0.10	0.45	0.45
Sat Flow, veh/h	1774	3260	317	1774	2742	757	1774	3396	201	1774	2645	839
Grp Volume(v), veh/h	62	88	91	13	198	199	5	78	82	145	233	231
Grp Sat Flow(s),veh/h/ln	1774	1770	1807	1774	1770	1729	1774	1770	1827	1774	1770	1715
Q Serve(g_s), s	1.8	2.1	2.1	0.4	5.3	5.4	0.1	1.6	1.6	4.1	4.4	4.5
Cycle Q Clear(g_c), s	1.8	2.1	2.1	0.4	5.3	5.4	0.1	1.6	1.6	4.1	4.4	4.5
Prop In Lane	1.00		0.18	1.00		0.44	1.00		0.11	1.00		0.49
Lane Grp Cap(c), veh/h	81	401	410	23	344	336	10	614	634	186	790	765
V/C Ratio(X)	0.77	0.22	0.22	0.56	0.58	0.59	0.53	0.13	0.13	0.78	0.30	0.30
Avail Cap(c_a), veh/h	137	648	662	137	648	633	137	614	634	274	790	765
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	16.3	16.3	25.4	19.0	19.0	25.7	11.6	11.6	22.6	9.2	9.2
Incr Delay (d2), s/veh	14.0	0.3	0.3	19.1	1.5	1.7	38.4	0.4	0.4	8.4	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.1	1.1	0.3	2.7	2.7	0.2	0.8	0.9	2.4	2.3	2.3
LnGrp Delay(d),s/veh	38.5	16.6	16.6	44.5	20.5	20.7	64.2	12.0	12.0	31.0	10.1	10.2
LnGrp LOS	D	B	B	D	C	C	E	B	B	C	B	B
Approach Vol, veh/h		241			410			165			609	
Approach Delay, s/veh		22.2			21.3			13.6			15.1	
Approach LOS		C			C			B			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	4.7	15.8	4.3	27.1	6.4	14.1	9.4	22.0				
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	4.0	19.0	4.0	22.0	4.0	19.0	8.0	18.0				
Max Q Clear Time (g_c+I1), s	2.4	4.1	2.1	6.5	3.8	7.4	6.1	3.6				
Green Ext Time (p_c), s	0.0	3.0	0.0	3.0	0.0	2.7	0.1	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay				17.9								
HCM 2010 LOS				B								

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	1167	95	67	927	66	77	279	33	87	321	187
Future Volume (veh/h)	124	1167	95	67	927	66	77	279	33	87	321	187
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	136	1282	104	74	1019	73	85	307	36	96	353	205
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	172	1278	103	94	1143	82	108	735	86	118	512	292
Arrive On Green	0.10	0.39	0.39	0.05	0.34	0.34	0.06	0.23	0.23	0.07	0.24	0.24
Sat Flow, veh/h	1774	3317	268	1774	3350	240	1774	3195	372	1774	2173	1240
Grp Volume(v), veh/h	136	683	703	74	538	554	85	169	174	96	286	272
Grp Sat Flow(s),veh/h/ln	1774	1770	1815	1774	1770	1820	1774	1770	1797	1774	1770	1644
Q Serve(g_s), s	4.5	23.2	23.2	2.5	17.4	17.4	2.8	4.9	5.0	3.2	8.9	9.1
Cycle Q Clear(g_c), s	4.5	23.2	23.2	2.5	17.4	17.4	2.8	4.9	5.0	3.2	8.9	9.1
Prop In Lane	1.00		0.15	1.00		0.13	1.00		0.21	1.00		0.75
Lane Grp Cap(c), veh/h	172	682	700	94	604	621	108	407	414	118	417	387
V/C Ratio(X)	0.79	1.00	1.01	0.79	0.89	0.89	0.78	0.41	0.42	0.82	0.69	0.70
Avail Cap(c_a), veh/h	177	682	700	118	616	634	118	528	536	118	528	491
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	18.5	18.5	28.2	18.8	18.8	27.9	19.8	19.8	27.8	21.0	21.1
Incr Delay (d2), s/veh	20.6	34.7	35.4	24.0	15.0	14.7	26.8	0.7	0.7	34.1	2.6	3.2
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	3.2	17.7	18.3	1.8	10.9	11.2	2.2	2.5	2.5	2.7	4.6	4.5
LnGrp Delay(d),s/veh	47.3	53.2	53.9	52.2	33.8	33.5	54.7	20.4	20.5	61.9	23.7	24.3
LnGrp LOS	D	F	F	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		1522			1166			428			654	
Approach Delay, s/veh		53.0			34.8			27.3			29.6	
Approach LOS		D			C			C			C	
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	7.2	27.2	7.7	18.2	9.9	24.6	8.0	17.9				
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	4.0	23.0	4.0	18.0	6.0	21.0	4.0	18.0				
Max Q Clear Time (g_c+I1), s	4.5	25.2	4.8	11.1	6.5	19.4	5.2	7.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.1	0.0	1.2	0.0	4.2				
Intersection Summary												
HCM 2010 Ctrl Delay			40.4									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	1292	29	15	1063	11	15	8	7	3	9	18
Future Volume (veh/h)	32	1292	29	15	1063	11	15	8	7	3	9	18
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	33	1346	30	16	1107	11	16	8	7	3	9	19
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	502	2606	58	417	2643	26	188	21	19	114	25	53
Arrive On Green	0.74	0.74	0.74	0.74	0.74	0.74	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	502	3540	79	393	3590	36	835	417	365	165	495	1045
Grp Volume(v), veh/h	33	672	704	16	546	572	31	0	0	31	0	0
Grp Sat Flow(s),veh/h/ln	502	1770	1849	393	1770	1856	1617	0	0	1705	0	0
Q Serve(g_s), s	1.0	6.1	6.1	0.7	4.4	4.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.4	6.1	6.1	6.8	4.4	4.4	0.6	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.02	0.52		0.23	0.10		0.61
Lane Grp Cap(c), veh/h	502	1303	1361	417	1303	1367	227	0	0	192	0	0
V/C Ratio(X)	0.07	0.52	0.52	0.04	0.42	0.42	0.14	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	587	1603	1674	484	1603	1681	881	0	0	892	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	2.9	2.1	2.1	3.5	1.9	1.9	17.2	0.0	0.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.3	0.0	0.2	0.2	0.3	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	0.1	2.9	3.0	0.1	2.2	2.3	0.3	0.0	0.0	0.3	0.0	0.0
LnGrp Delay(d),s/veh	3.0	2.4	2.4	3.6	2.1	2.1	17.5	0.0	0.0	17.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B			B		
Approach Vol, veh/h		1409			1134			31			31	
Approach Delay, s/veh		2.4			2.1			17.5			17.6	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.6		5.9		31.6		5.9				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		34.0		18.0		34.0		18.0				
Max Q Clear Time (g_c+I1), s		8.1		2.6		8.8		2.6				
Green Ext Time (p_c), s		19.3		0.2		18.9		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			2.7									
HCM 2010 LOS			A									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	1098	72	135	858	62	79	281	88	61	312	58
Future Volume (veh/h)	74	1098	72	135	858	62	79	281	88	61	312	58
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	84	1248	82	153	975	70	90	319	100	69	355	66
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	107	1427	94	183	1553	112	114	535	455	89	417	78
Arrive On Green	0.06	0.42	0.42	0.10	0.45	0.45	0.06	0.28	0.28	0.05	0.27	0.27
Sat Flow, veh/h	1737	3440	226	1810	3416	245	1810	1900	1615	1810	1559	290
Grp Volume(v), veh/h	84	654	676	153	515	530	90	319	100	69	0	421
Grp Sat Flow(s),veh/h/ln	1737	1805	1860	1810	1805	1857	1810	1900	1615	1810	0	1849
Q Serve(g_s), s	5.0	34.8	34.9	8.7	22.8	22.8	5.1	15.2	5.0	3.9	0.0	22.6
Cycle Q Clear(g_c), s	5.0	34.8	34.9	8.7	22.8	22.8	5.1	15.2	5.0	3.9	0.0	22.6
Prop In Lane	1.00		0.12	1.00		0.13	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	107	749	772	183	821	844	114	535	455	89	0	495
V/C Ratio(X)	0.79	0.87	0.88	0.84	0.63	0.63	0.79	0.60	0.22	0.77	0.00	0.85
Avail Cap(c_a), veh/h	183	794	818	190	821	844	121	636	541	121	0	619
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.4	28.1	28.1	46.1	21.8	21.8	48.3	32.4	28.8	49.1	0.0	36.3
Incr Delay (d2), s/veh	12.0	10.2	10.1	25.8	1.5	1.5	27.1	1.1	0.2	19.0	0.0	9.1
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	19.4	20.0	5.6	11.7	12.0	3.4	8.1	2.2	2.4	0.0	12.7
LnGrp Delay(d),s/veh	60.4	38.2	38.2	72.0	23.3	23.2	75.4	33.5	29.0	68.1	0.0	45.4
LnGrp LOS	E	D	D	E	C	C	E	C	C	E		D
Approach Vol, veh/h		1414			1198			509			490	
Approach Delay, s/veh		39.5			29.5			40.0			48.6	
Approach LOS		D			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	14.6	47.4	10.6	32.0	10.4	51.5	9.1	33.4				
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	11.0	46.0	7.0	35.0	11.0	46.0	7.0	35.0				
Max Q Clear Time (g_c+I1), s	10.7	36.9	7.1	24.6	7.0	24.8	5.9	17.2				
Green Ext Time (p_c), s	0.0	6.5	0.0	3.4	0.1	15.4	0.0	4.4				
Intersection Summary												
HCM 2010 Ctrl Delay				37.5								
HCM 2010 LOS				D								

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑		↑	↑↑	↑	↑		
Traffic Volume (veh/h)	1118	147	231	1134	134	210		
Future Volume (veh/h)	1118	147	231	1134	134	210		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1189	156	246	1206	143	223		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1573	206	290	2537	314	280		
Arrive On Green	0.50	0.50	0.16	0.72	0.18	0.18		
Sat Flow, veh/h	3241	412	1774	3632	1774	1583		
Grp Volume(v), veh/h	667	678	246	1206	143	223		
Grp Sat Flow(s),veh/h/ln	1770	1790	1774	1770	1774	1583		
Q Serve(g_s), s	22.7	22.9	10.1	11.0	5.4	10.1		
Cycle Q Clear(g_c), s	22.7	22.9	10.1	11.0	5.4	10.1		
Prop In Lane		0.23	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	884	895	290	2537	314	280		
V/C Ratio(X)	0.75	0.76	0.85	0.48	0.46	0.80		
Avail Cap(c_a), veh/h	943	954	378	2828	756	675		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	15.1	15.1	30.5	4.6	27.7	29.6		
Incr Delay (d2), s/veh	3.3	3.3	13.1	0.1	1.0	5.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	11.7	11.9	6.0	5.2	2.8	4.8		
LnGrp Delay(d),s/veh	18.3	18.5	43.6	4.7	28.7	34.8		
LnGrp LOS	B	B	D	A	C	C		
Approach Vol, veh/h	1345			1452	366			
Approach Delay, s/veh	18.4			11.3	32.4			
Approach LOS	B			B	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.3	41.5				57.8		17.3
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	40.0				60.0		32.0
Max Q Clear Time (g_c+I1), s	12.1	24.9				13.0		12.1
Green Ext Time (p_c), s	0.3	12.6				30.0		1.1
Intersection Summary								
HCM 2010 Ctrl Delay			16.8					
HCM 2010 LOS			B					

Existing Conditions - PM Peak Hour
14: Jefferson Street & Magnolia Avenue

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	832	84	57	846	96	58	192	50	66	217	75
Future Volume (veh/h)	87	832	84	57	846	96	58	192	50	66	217	75
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	93	885	89	61	900	102	62	204	53	70	231	80
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	1158	117	76	1066	121	78	416	108	89	394	136
Arrive On Green	0.07	0.36	0.36	0.04	0.33	0.33	0.04	0.29	0.29	0.05	0.30	0.30
Sat Flow, veh/h	1774	3248	327	1774	3205	363	1774	1427	371	1774	1324	458
Grp Volume(v), veh/h	93	482	492	61	497	505	62	0	257	70	0	311
Grp Sat Flow(s),veh/h/ln	1774	1770	1805	1774	1770	1799	1774	0	1797	1774	0	1782
Q Serve(g_s), s	3.2	14.9	14.9	2.1	16.1	16.1	2.1	0.0	7.3	2.4	0.0	9.2
Cycle Q Clear(g_c), s	3.2	14.9	14.9	2.1	16.1	16.1	2.1	0.0	7.3	2.4	0.0	9.2
Prop In Lane	1.00		0.18	1.00		0.20	1.00		0.21	1.00		0.26
Lane Grp Cap(c), veh/h	119	631	644	76	589	598	78	0	524	89	0	530
V/C Ratio(X)	0.78	0.76	0.76	0.80	0.84	0.84	0.80	0.00	0.49	0.79	0.00	0.59
Avail Cap(c_a), veh/h	172	659	672	115	601	611	115	0	524	115	0	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.4	17.6	17.6	29.3	19.1	19.1	29.3	0.0	18.1	29.0	0.0	18.5
Incr Delay (d2), s/veh	13.2	5.1	5.0	20.1	10.5	10.3	20.6	0.0	3.3	23.7	0.0	4.7
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	2.0	8.1	8.3	1.4	9.6	9.7	1.5	0.0	4.0	1.8	0.0	5.2
LnGrp Delay(d),s/veh	41.6	22.7	22.6	49.4	29.6	29.5	49.8	0.0	21.4	52.8	0.0	23.2
LnGrp LOS	D	C	C	D	C	C	D		C	D		C
Approach Vol, veh/h	1067			1063			319			381		
Approach Delay, s/veh	24.3			30.7			26.9			28.6		
Approach LOS	C			C			C			C		
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	6.7	26.0	6.7	22.4	8.1	24.6	7.1	22.0				
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	4.0	23.0	4.0	18.0	6.0	21.0	4.0	18.0				
Max Q Clear Time (g_c+I1), s	4.1	16.9	4.1	11.2	5.2	18.1	4.4	9.3				
Green Ext Time (p_c), s	0.0	4.9	0.0	1.8	0.0	2.5	0.0	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			27.6									
HCM 2010 LOS			C									

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	48	0	44	0	391	34	51	412	0
Future Vol, veh/h	0	0	0	48	0	44	0	391	34	51	412	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	56	0	51	0	455	40	59	479	0
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1098	1092	479	1072	1072	474	479	0	0	494	0	0
Stage 1	598	598	-	474	474	-	-	-	-	-	-	-
Stage 2	500	494	-	598	598	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	190	215	587	198	220	590	1083	-	-	1070	-	-
Stage 1	489	491	-	571	558	-	-	-	-	-	-	-
Stage 2	553	546	-	489	491	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	164	199	587	187	204	590	1083	-	-	1070	-	-
Mov Cap-2 Maneuver	164	199	-	187	204	-	-	-	-	-	-	-
Stage 1	489	454	-	571	558	-	-	-	-	-	-	-
Stage 2	505	546	-	452	454	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			25.8			0			0.9		
HCM LOS	A			D								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1083	-	-	-	278	1070	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.385	0.055	-	-				
HCM Control Delay (s)	0	-	-	0	25.8	8.6	0	-				
HCM Lane LOS	A	-	-	A	D	A	A	-				
HCM 95th %tile O(veh)	0	-	-	-	1.7	0.2	-	-				

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	74	103	37	2	7	75
Future Vol, veh/h	74	103	37	2	7	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	110	39	2	7	80

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	41	0	307
Stage 1	-	-	40
Stage 2	-	-	267
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1568	-	685
Stage 1	-	-	982
Stage 2	-	-	778
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1568	-	648
Mov Cap-2 Maneuver	-	-	648
Stage 1	-	-	982
Stage 2	-	-	736

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1568	-	-	-	981
HCM Lane V/C Ratio	0.05	-	-	-	0.089
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection

Int Delay, s/veh 4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	18	69	72	51	91	28
Future Vol, veh/h	18	69	72	51	91	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	71	74	53	94	29

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	127	0	209
Stage 1	-	-	101
Stage 2	-	-	108
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1459	-	779
Stage 1	-	-	923
Stage 2	-	-	916
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1459	-	768
Mov Cap-2 Maneuver	-	-	768
Stage 1	-	-	923
Stage 2	-	-	903

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1459	-	-	-	805
HCM Lane V/C Ratio	0.013	-	-	-	0.152
HCM Control Delay (s)	7.5	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Existing + Ambient Conditions - AM Peak Hour
1: Adams Street & Garfield Street

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	62	143	34	39	64	95	818	24	48	878	19
Future Volume (veh/h)	21	62	143	34	39	64	95	818	24	48	878	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	25	75	172	41	47	77	114	986	29	58	1058	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	121	240	154	147	181	146	1658	49	80	1540	33
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.08	0.47	0.47	0.05	0.43	0.43
Sat Flow, veh/h	79	525	1038	256	638	783	1774	3511	103	1774	3542	77
Grp Volume(v), veh/h	272	0	0	165	0	0	114	497	518	58	529	552
Grp Sat Flow(s),veh/h/ln	1642	0	0	1677	0	0	1774	1770	1845	1774	1770	1849
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	3.0	9.8	9.8	1.5	11.5	11.5
Cycle Q Clear(g_c), s	7.2	0.0	0.0	3.9	0.0	0.0	3.0	9.8	9.8	1.5	11.5	11.5
Prop In Lane	0.09		0.63	0.25		0.47	1.00		0.06	1.00		0.04
Lane Grp Cap(c), veh/h	461	0	0	481	0	0	146	836	871	80	769	804
V/C Ratio(X)	0.59	0.00	0.00	0.34	0.00	0.00	0.78	0.59	0.59	0.73	0.69	0.69
Avail Cap(c_a), veh/h	699	0	0	702	0	0	261	929	969	186	855	893
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	0.0	15.6	0.0	0.0	21.4	9.2	9.2	22.4	10.8	10.8
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.4	0.0	0.0	8.6	0.9	0.8	11.8	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	1.9	0.0	0.0	1.8	4.9	5.1	1.0	6.0	6.3
LnGrp Delay(d),s/veh	18.0	0.0	0.0	16.0	0.0	0.0	30.0	10.1	10.0	34.2	12.9	12.8
LnGrp LOS	B			B			C	B	B	C	B	B
Approach Vol, veh/h		272			165			1129			1139	
Approach Delay, s/veh		18.0			16.0			12.1			13.9	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.0	7.9	24.7		15.0	6.1	26.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	7.0	23.0		18.0	5.0	25.0				
Max Q Clear Time (g_c+I1), s		9.2	5.0	13.5		5.9	3.5	11.8				
Green Ext Time (p_c), s		1.8	0.0	7.2		2.2	0.0	9.4				
Intersection Summary												
HCM 2010 Ctrl Delay			13.7									
HCM 2010 LOS			B									

Existing + Ambient Conditions - AM Peak Hour
2: Adams Street & Magnolia Avenue

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	642	200	123	419	263	404	644	276	261	735	77
Future Volume (veh/h)	94	642	200	123	419	263	404	644	276	261	735	77
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1885	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	107	730	227	140	476	299	459	732	314	297	835	88
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	134	789	245	166	644	403	547	868	412	334	897	95
Arrive On Green	0.08	0.29	0.29	0.09	0.30	0.30	0.16	0.25	0.25	0.19	0.28	0.28
Sat Flow, veh/h	1703	2713	844	1810	2118	1325	3510	3539	1680	1774	3232	341
Grp Volume(v), veh/h	107	486	471	140	402	373	459	732	314	297	457	466
Grp Sat Flow(s),veh/h/ln	1703	1805	1751	1810	1791	1652	1755	1770	1680	1774	1770	1803
Q Serve(g_s), s	5.4	22.7	22.7	6.6	17.5	17.7	11.1	17.1	15.1	14.2	21.9	21.9
Cycle Q Clear(g_c), s	5.4	22.7	22.7	6.6	17.5	17.7	11.1	17.1	15.1	14.2	21.9	21.9
Prop In Lane	1.00		0.48	1.00		0.80	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	134	525	509	166	545	502	547	868	412	334	491	500
V/C Ratio(X)	0.80	0.93	0.93	0.84	0.74	0.74	0.84	0.84	0.76	0.89	0.93	0.93
Avail Cap(c_a), veh/h	176	539	523	166	545	502	645	895	425	367	491	500
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	29.9	29.9	38.9	27.2	27.2	35.7	31.2	30.5	34.5	30.6	30.6
Incr Delay (d2), s/veh	17.2	21.7	22.2	30.3	5.3	5.9	8.4	7.2	7.7	21.4	24.6	24.3
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	3.2	14.5	14.1	4.7	9.4	8.8	6.0	9.2	7.8	8.9	14.0	14.2
LnGrp Delay(d),s/veh	56.6	51.7	52.2	69.2	32.4	33.1	44.1	38.5	38.2	55.9	55.3	55.0
LnGrp LOS	E	D	D	E	C	C	D	D	D	E	E	D
Approach Vol, veh/h		1064			915			1505			1220	
Approach Delay, s/veh		52.4			38.3			40.1			55.3	
Approach LOS		D			D			D			E	
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	12.0	29.3	17.6	28.2	10.9	30.5	20.4	25.4				
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	8.0	26.0	16.0	24.0	9.0	25.0	18.0	22.0				
Max Q Clear Time (g_c+I1), s	8.6	24.7	13.1	23.9	7.4	19.7	16.2	19.1				
Green Ext Time (p_c), s	0.0	0.6	0.5	0.1	0.0	4.0	0.2	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			46.5									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	3	8	49	4	20	28	1141	13	10	894	37
Future Volume (veh/h)	62	3	8	49	4	20	28	1141	13	10	894	37
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1937	1900	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	75	4	10	59	5	24	34	1375	16	12	1077	45
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	6	14	142	13	37	43	2855	33	20	2713	113
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.02	0.53	0.53	0.01	0.78	0.78
Sat Flow, veh/h	1349	78	181	1082	168	469	1774	3583	42	1774	3462	145
Grp Volume(v), veh/h	89	0	0	88	0	0	34	679	712	12	550	572
Grp Sat Flow(s),veh/h/ln	1607	0	0	1719	0	0	1774	1770	1855	1774	1770	1837
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.0	2.0	25.5	25.5	0.7	10.3	10.4
Cycle Q Clear(g_c), s	5.5	0.0	0.0	5.0	0.0	0.0	2.0	25.5	25.5	0.7	10.3	10.4
Prop In Lane	0.84		0.11	0.67		0.27	1.00		0.02	1.00		0.08
Lane Grp Cap(c), veh/h	189	0	0	192	0	0	43	1410	1478	20	1387	1440
V/C Ratio(X)	0.47	0.00	0.00	0.46	0.00	0.00	0.79	0.48	0.48	0.60	0.40	0.40
Avail Cap(c_a), veh/h	489	0	0	503	0	0	385	1410	1478	335	1387	1440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.17	0.17	0.17
Uniform Delay (d), s/veh	47.5	0.0	0.0	47.3	0.0	0.0	51.9	11.0	11.0	52.2	3.6	3.6
Incr Delay (d2), s/veh	1.8	0.0	0.0	1.7	0.0	0.0	26.5	1.2	1.1	5.0	0.1	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	2.6	0.0	0.0	2.6	0.0	0.0	1.3	12.9	13.5	0.4	4.9	5.1
LnGrp Delay(d),s/veh	49.3	0.0	0.0	49.0	0.0	0.0	78.4	12.1	12.1	57.1	3.7	3.7
LnGrp LOS	D			D			E	B	B	E	A	A
Approach Vol, veh/h		89			88			1425			1134	
Approach Delay, s/veh		49.3			49.0			13.7			4.3	
Approach LOS		D			D			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.4	6.6	87.1		12.4	5.2	88.5				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		30.0	23.0	41.0		30.0	20.0	44.0				
Max Q Clear Time (g_c+I1), s		7.5	4.0	12.4		7.0	2.7	27.5				
Green Ext Time (p_c), s		0.9	0.0	19.7		0.9	0.0	12.9				
Intersection Summary												
HCM 2010 Ctrl Delay			12.1									
HCM 2010 LOS			B									

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	4	22	172	1171	968	15
Future Vol, veh/h	4	22	172	1171	968	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	97	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	25	198	1346	1113	17

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	2189	565	1130 0
Stage 1	1121	-	- -
Stage 2	1068	-	- -
Critical Hdwy	6.84	6.94	4.14 -
Critical Hdwy Stg 1	5.84	-	- -
Critical Hdwy Stg 2	5.84	-	- -
Follow-up Hdwy	3.52	3.32	2.22 -
Pot Cap-1 Maneuver	39	468	614 -
Stage 1	273	-	- -
Stage 2	291	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	26	468	614 -
Mov Cap-2 Maneuver	26	-	- -
Stage 1	273	-	- -
Stage 2	197	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	41.1	1.7	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	614	-	129	-	-
HCM Lane V/C Ratio	0.322	-	0.232	-	-
HCM Control Delay (s)	13.6	-	41.1	-	-
HCM Lane LOS	B	-	E	-	-
HCM 95th %tile Q(veh)	1.4	-	0.8	-	-

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	43	0	0	8	0	1432	17	0	942	52
Future Vol, veh/h	0	0	43	0	0	8	0	1432	17	0	942	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	52	0	0	10	0	1725	20	0	1135	63
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2029	2912	599	2190	2934	873	1198	0	0	1746	0	0
Stage 1	1166	1166	-	1736	1736	-	-	-	-	-	-	-
Stage 2	863	1746	-	454	1198	-	-	-	-	-	-	-
Critical Hdwy	6.95	6.5	7.1	6.95	6.5	6.9	5.3	-	-	4.1	-	-
Critical Hdwy Stg 1	7.3	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.7	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4	3.9	3.65	4	3.3	3.1	-	-	2.2	-	-
Pot Cap-1 Maneuver	46	16	385	36	15	297	319	-	-	364	-	-
Stage 1	158	270	-	91	143	-	-	-	-	-	-	-
Stage 2	312	142	-	529	261	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	45	16	385	31	15	297	319	-	-	364	-	-
Mov Cap-2 Maneuver	45	16	-	31	15	-	-	-	-	-	-	-
Stage 1	158	270	-	91	143	-	-	-	-	-	-	-
Stage 2	302	142	-	458	261	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	15.8			17.5			0			0		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	319	-	-	385	297	364	-	-				
HCM Lane V/C Ratio	-	-	-	0.135	0.032	-	-	-				
HCM Control Delay (s)	0	-	-	15.8	17.5	0	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.5	0.1	0	-	-				

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	351	0	596	217	786	0	0	577	438
Future Volume (veh/h)	0	0	0	351	0	596	217	786	0	0	577	438
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				423	221	570	261	947	0	0	695	528
Adj No. of Lanes				0	1	1	1	2	0	0	3	0
Peak Hour Factor				0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				459	240	613	291	1901	0	0	1136	531
Arrive On Green				0.39	0.39	0.39	0.22	0.71	0.00	0.00	0.22	0.22
Sat Flow, veh/h				1185	619	1583	1774	3632	0	0	3558	1583
Grp Volume(v), veh/h				644	0	570	261	947	0	0	695	528
Grp Sat Flow(s),veh/h/ln				1804	0	1583	1774	1770	0	0	1695	1583
Q Serve(g_s), s				36.1	0.0	36.5	15.2	12.6	0.0	0.0	19.5	35.3
Cycle Q Clear(g_c), s				36.1	0.0	36.5	15.2	12.6	0.0	0.0	19.5	35.3
Prop In Lane				0.66		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				699	0	613	291	1901	0	0	1136	531
V/C Ratio(X)				0.92	0.00	0.93	0.90	0.50	0.00	0.00	0.61	0.99
Avail Cap(c_a), veh/h				732	0	642	351	1901	0	0	1136	531
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	0.67	0.67
Upstream Filter(I)				1.00	0.00	1.00	0.85	0.85	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				30.9	0.0	31.1	40.5	8.8	0.0	0.0	34.9	41.0
Incr Delay (d2), s/veh				16.7	0.0	19.7	19.0	0.8	0.0	0.0	2.5	37.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				21.1	0.0	19.2	8.9	6.3	0.0	0.0	9.5	21.0
LnGrp Delay(d),s/veh				47.7	0.0	50.8	59.6	9.6	0.0	0.0	37.4	78.8
LnGrp LOS				D		D	E	A			D	E
Approach Vol, veh/h					1214			1208			1223	
Approach Delay, s/veh					49.1			20.4			55.3	
Approach LOS					D			C			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			21.4	39.5		45.1		60.9				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			21.0	30.0		43.0		55.0				
Max Q Clear Time (g_c+I1), s			17.2	37.3		38.5		14.6				
Green Ext Time (p_c), s			0.3	0.0		2.5		21.5				
Intersection Summary												
HCM 2010 Ctrl Delay			41.7									
HCM 2010 LOS			D									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			 	
Traffic Volume (veh/h)	485	2	601	0	0	0	0	505	228	278	619	0
Future Volume (veh/h)	485	2	601	0	0	0	0	505	228	278	619	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	516	2	639				0	537	243	296	659	0
Adj No. of Lanes	0	1	1				0	3	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	741	3	664				0	965	423	335	1788	0
Arrive On Green	0.42	0.42	0.42				0.00	0.09	0.09	0.06	0.17	0.00
Sat Flow, veh/h	1768	7	1583				0	3632	1520	1774	3632	0
Grp Volume(v), veh/h	518	0	639				0	525	255	296	659	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1595	1774	1770	0
Q Serve(g_s), s	25.4	0.0	41.6				0.0	15.7	16.2	17.6	17.5	0.0
Cycle Q Clear(g_c), s	25.4	0.0	41.6				0.0	15.7	16.2	17.6	17.5	0.0
Prop In Lane	1.00		1.00				0.00		0.95	1.00		0.00
Lane Grp Cap(c), veh/h	744	0	664				0	944	444	335	1788	0
V/C Ratio(X)	0.70	0.00	0.96				0.00	0.56	0.57	0.88	0.37	0.00
Avail Cap(c_a), veh/h	753	0	672				0	944	444	435	1788	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.86	0.86	0.59	0.59	0.00
Uniform Delay (d), s/veh	25.2	0.0	29.9				0.0	41.9	42.1	48.5	29.2	0.0
Incr Delay (d2), s/veh	2.8	0.0	25.5				0.0	2.0	4.6	10.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	0.0	22.8				0.0	7.7	7.7	9.6	8.7	0.0
LnGrp Delay(d),s/veh	28.0	0.0	55.4				0.0	43.9	46.7	58.6	29.5	0.0
LnGrp LOS	C		E					D	D	E	C	
Approach Vol, veh/h		1157						780			955	
Approach Delay, s/veh		43.1						44.8			38.5	
Approach LOS		D						D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		48.5		57.5			24.0	33.5				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		45.0		53.0			26.0	23.0				
Max Q Clear Time (g_c+l1), s		43.6		19.5			19.6	18.2				
Green Ext Time (p_c), s		0.8		11.1			0.5	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay			42.1									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	456	43	41	130	103	21	482	31	377	762	104
Future Volume (veh/h)	112	456	43	41	130	103	21	482	31	377	762	104
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	123	501	47	45	143	113	23	530	34	414	837	114
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	623	58	57	267	197	33	1277	82	440	1903	259
Arrive On Green	0.09	0.19	0.19	0.03	0.14	0.14	0.02	0.38	0.38	0.50	1.00	1.00
Sat Flow, veh/h	1774	3272	306	1774	1945	1434	1774	3378	216	1774	3131	426
Grp Volume(v), veh/h	123	270	278	45	129	127	23	277	287	414	473	478
Grp Sat Flow(s),veh/h/ln	1774	1770	1809	1774	1770	1610	1774	1770	1825	1774	1770	1787
Q Serve(g_s), s	7.2	15.5	15.6	2.7	7.2	7.8	1.4	12.2	12.3	23.4	0.0	0.0
Cycle Q Clear(g_c), s	7.2	15.5	15.6	2.7	7.2	7.8	1.4	12.2	12.3	23.4	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.89	1.00		0.12	1.00		0.24
Lane Grp Cap(c), veh/h	152	337	344	57	243	221	33	669	690	440	1075	1086
V/C Ratio(X)	0.81	0.80	0.81	0.78	0.53	0.57	0.70	0.41	0.42	0.94	0.44	0.44
Avail Cap(c_a), veh/h	234	401	410	100	267	243	84	669	690	603	1075	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82	0.76	0.76	0.76
Uniform Delay (d), s/veh	47.6	41.0	41.0	50.9	42.6	42.8	51.7	24.3	24.3	25.9	0.0	0.0
Incr Delay (d2), s/veh	11.3	9.6	9.7	20.2	1.8	2.7	19.6	1.6	1.5	15.6	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	8.5	8.7	1.6	3.6	3.7	0.9	6.3	6.5	13.2	0.3	0.3
LnGrp Delay(d),s/veh	58.9	50.6	50.8	71.2	44.4	45.6	71.3	25.9	25.8	41.6	1.0	1.0
LnGrp LOS	E	D	D	E	D	D	E	C	C	D	A	A
Approach Vol, veh/h		671			301			587			1365	
Approach Delay, s/veh		52.2			48.9			27.6			13.3	
Approach LOS		D			D			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+Rc), s	7.4	24.2	6.0	68.4	13.1	18.5	30.3	44.1				
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	24.0	5.0	55.0	14.0	16.0	36.0	24.0				
Max Q Clear Time (g_c+I1), s	4.7	17.6	3.4	2.0	9.2	9.8	25.4	14.3				
Green Ext Time (p_c), s	0.0	2.6	0.0	11.9	0.1	2.5	1.0	5.7				
Intersection Summary												
HCM 2010 Ctrl Delay			28.8									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	192	11	4	194	131	13	394	14	125	147	56
Future Volume (veh/h)	121	192	11	4	194	131	13	394	14	125	147	56
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	153	243	14	5	246	166	16	499	18	158	186	71
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	1004	58	9	405	263	28	1084	39	198	1032	381
Arrive On Green	0.10	0.30	0.30	0.01	0.20	0.20	0.02	0.31	0.31	0.11	0.41	0.41
Sat Flow, veh/h	1774	3403	195	1774	2058	1338	1774	3485	126	1774	2533	934
Grp Volume(v), veh/h	153	126	131	5	210	202	16	253	264	158	128	129
Grp Sat Flow(s),veh/h/ln	1774	1770	1828	1774	1770	1627	1774	1770	1841	1774	1770	1698
Q Serve(g_s), s	4.9	3.1	3.2	0.2	6.3	6.6	0.5	6.7	6.7	5.0	2.7	2.8
Cycle Q Clear(g_c), s	4.9	3.1	3.2	0.2	6.3	6.6	0.5	6.7	6.7	5.0	2.7	2.8
Prop In Lane	1.00		0.11	1.00		0.82	1.00		0.07	1.00		0.55
Lane Grp Cap(c), veh/h	184	522	540	9	348	320	28	551	573	198	721	692
V/C Ratio(X)	0.83	0.24	0.24	0.53	0.60	0.63	0.58	0.46	0.46	0.80	0.18	0.19
Avail Cap(c_a), veh/h	184	612	632	123	551	506	153	551	573	215	721	692
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	15.5	15.5	28.7	21.2	21.3	28.3	16.0	16.0	25.0	11.0	11.0
Incr Delay (d2), s/veh	26.4	0.2	0.2	38.8	1.7	2.0	17.4	2.7	2.7	17.5	0.5	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	3.7	1.5	1.6	0.2	3.2	3.1	0.4	3.7	3.8	3.4	1.4	1.4
LnGrp Delay(d),s/veh	51.8	15.7	15.7	67.5	22.9	23.4	45.6	18.8	18.7	42.5	11.5	11.6
LnGrp LOS	D	B	B	E	C	C	D	B	B	D	B	B
Approach Vol, veh/h		410			417			533			415	
Approach Delay, s/veh		29.2			23.6			19.5			23.3	
Approach LOS		C			C			B			C	
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	4.3	21.1	4.9	27.6	10.0	15.4	10.5	22.0				
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	4.0	20.0	5.0	20.0	6.0	18.0	7.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	5.2	2.5	4.8	6.9	8.6	7.0	8.7				
Green Ext Time (p_c), s	0.0	3.6	0.0	3.7	0.0	2.8	0.0	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay				23.6								
HCM 2010 LOS				C								

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	784	98	81	547	123	88	439	107	115	290	101
Future Volume (veh/h)	126	784	98	81	547	123	88	439	107	115	290	101
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	152	945	118	98	659	148	106	529	129	139	349	122
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	1129	141	125	918	206	135	688	167	159	665	229
Arrive On Green	0.11	0.36	0.36	0.07	0.32	0.32	0.08	0.24	0.24	0.09	0.26	0.26
Sat Flow, veh/h	1774	3167	395	1774	2874	645	1774	2825	686	1774	2585	890
Grp Volume(v), veh/h	152	528	535	98	406	401	106	330	328	139	237	234
Grp Sat Flow(s),veh/h/ln	1774	1770	1793	1774	1770	1749	1774	1770	1742	1774	1770	1706
Q Serve(g_s), s	5.6	18.3	18.3	3.6	13.5	13.5	3.9	11.6	11.7	5.2	7.7	7.9
Cycle Q Clear(g_c), s	5.6	18.3	18.3	3.6	13.5	13.5	3.9	11.6	11.7	5.2	7.7	7.9
Prop In Lane	1.00		0.22	1.00		0.37	1.00		0.39	1.00		0.52
Lane Grp Cap(c), veh/h	191	631	639	125	565	559	135	431	424	159	455	439
V/C Ratio(X)	0.80	0.84	0.84	0.78	0.72	0.72	0.78	0.77	0.77	0.87	0.52	0.53
Avail Cap(c_a), veh/h	239	663	671	133	565	559	159	477	470	159	477	460
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	19.7	19.7	30.5	20.1	20.1	30.3	23.5	23.5	30.0	21.3	21.3
Incr Delay (d2), s/veh	13.8	8.9	8.8	24.4	4.4	4.4	19.1	6.7	7.1	37.3	0.9	1.1
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	3.5	10.4	10.5	2.6	7.2	7.2	2.6	6.4	6.5	4.2	3.9	3.8
LnGrp Delay(d),s/veh	42.9	28.6	28.5	54.9	24.4	24.5	49.4	30.2	30.6	67.3	22.2	22.4
LnGrp LOS	D	C	C	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		1215			905			764			610	
Approach Delay, s/veh		30.4			27.8			33.0			32.6	
Approach LOS		C			C			C			C	
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	8.7	27.8	9.1	21.2	11.2	25.3	10.0	20.3				
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	5.0	25.0	6.0	18.0	9.0	21.0	6.0	18.0				
Max Q Clear Time (g_c+I1), s	5.6	20.3	5.9	9.9	7.6	15.5	7.2	13.7				
Green Ext Time (p_c), s	0.0	3.5	0.0	4.2	0.1	4.3	0.0	2.6				
Intersection Summary												
HCM 2010 Ctrl Delay			30.7									
HCM 2010 LOS			C									

Existing + Ambient Conditions - AM Peak Hour
11: Overland Street & Magnolia Avenue

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	958	164	101	657	38	13	14	4	33	105	63
Future Volume (veh/h)	37	958	164	101	657	38	13	14	4	33	105	63
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	42	1076	184	113	738	43	15	16	4	37	118	71
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	533	1967	336	351	2210	129	201	182	36	121	180	97
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	689	3025	516	439	3399	198	514	1003	196	179	991	536
Grp Volume(v), veh/h	42	628	632	113	384	397	35	0	0	226	0	0
Grp Sat Flow(s),veh/h/ln	689	1770	1772	439	1770	1828	1713	0	0	1707	0	0
Q Serve(g_s), s	1.4	9.2	9.2	9.0	4.6	4.6	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear(g_c), s	6.0	9.2	9.2	18.2	4.6	4.6	0.8	0.0	0.0	5.9	0.0	0.0
Prop In Lane	1.00		0.29	1.00		0.11	0.43		0.11	0.16		0.31
Lane Grp Cap(c), veh/h	533	1151	1152	351	1151	1189	419	0	0	398	0	0
V/C Ratio(X)	0.08	0.55	0.55	0.32	0.33	0.33	0.08	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	577	1264	1266	380	1264	1306	709	0	0	728	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	5.1	4.5	4.5	9.5	3.7	3.7	16.2	0.0	0.0	18.3	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.5	0.2	0.2	0.1	0.0	0.0	1.3	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	0.3	4.5	4.5	1.1	2.3	2.4	0.4	0.0	0.0	2.9	0.0	0.0
LnGrp Delay(d),s/veh	5.1	4.9	4.9	10.0	3.9	3.9	16.3	0.0	0.0	19.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B			B		
Approach Vol, veh/h	1302				894				35		226	
Approach Delay, s/veh	4.9				4.7				16.3		19.6	
Approach LOS	A				A				B		B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	34.9		12.6		34.9		12.6					
Change Period (Y+Rc), s	4.0		4.0		4.0		4.0					
Max Green Setting (Gmax), s	34.0		18.0		34.0		18.0					
Max Q Clear Time (g_c+I1), s	11.2		7.9		20.2		2.8					
Green Ext Time (p_c), s	15.8		1.0		10.7		1.3					
Intersection Summary												
HCM 2010 Ctrl Delay	6.3											
HCM 2010 LOS	A											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	757	106	103	358	56	173	255	148	95	302	61
Future Volume (veh/h)	94	757	106	103	358	56	173	255	148	95	302	61
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	983	138	134	465	73	225	331	192	123	392	79
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	153	1086	152	164	1077	168	247	571	486	154	384	77
Arrive On Green	0.09	0.34	0.34	0.09	0.34	0.34	0.14	0.30	0.30	0.09	0.25	0.25
Sat Flow, veh/h	1737	3180	446	1810	3130	489	1810	1900	1615	1810	1536	310
Grp Volume(v), veh/h	122	558	563	134	267	271	225	331	192	123	0	471
Grp Sat Flow(s),veh/h/ln	1737	1805	1821	1810	1805	1814	1810	1900	1615	1810	0	1845
Q Serve(g_s), s	6.1	25.9	26.0	6.4	10.0	10.1	10.8	13.0	8.3	5.9	0.0	22.0
Cycle Q Clear(g_c), s	6.1	25.9	26.0	6.4	10.0	10.1	10.8	13.0	8.3	5.9	0.0	22.0
Prop In Lane	1.00		0.24	1.00		0.27	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	153	616	622	164	621	624	247	571	486	154	0	461
V/C Ratio(X)	0.80	0.90	0.91	0.82	0.43	0.43	0.91	0.58	0.40	0.80	0.00	1.02
Avail Cap(c_a), veh/h	256	656	662	164	621	624	247	571	486	185	0	461
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.4	27.6	27.6	39.3	22.2	22.3	37.5	26.1	24.4	39.5	0.0	33.0
Incr Delay (d2), s/veh	9.1	15.6	15.6	26.1	0.5	0.5	34.9	1.5	0.5	18.1	0.0	47.6
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	3.3	15.5	15.7	4.4	5.1	5.1	7.8	7.0	3.8	3.7	0.0	17.2
LnGrp Delay(d),s/veh	48.5	43.2	43.2	65.5	22.7	22.7	72.4	27.5	25.0	57.7	0.0	80.6
LnGrp LOS	D	D	D	E	C	C	E	C	C	E		F
Approach Vol, veh/h		1243			672			748			594	
Approach Delay, s/veh		43.7			31.2			40.4			75.9	
Approach LOS		D			C			D			E	
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	12.0	34.1	16.0	26.0	11.8	34.3	11.5	30.5				
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	8.0	32.0	12.0	22.0	13.0	27.0	9.0	25.0				
Max Q Clear Time (g_c+I1), s	8.4	28.0	12.8	24.0	8.1	12.1	7.9	15.0				
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.1	8.7	0.0	3.9				
Intersection Summary												
HCM 2010 Ctrl Delay			46.2									
HCM 2010 LOS			D									

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑		↑	↑↑	↑	↑		
Traffic Volume (veh/h)	778	184	311	593	33	80		
Future Volume (veh/h)	778	184	311	593	33	80		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	864	204	346	659	37	89		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1284	303	418	2705	146	130		
Arrive On Green	0.45	0.45	0.24	0.76	0.08	0.08		
Sat Flow, veh/h	2936	671	1774	3632	1774	1583		
Grp Volume(v), veh/h	538	530	346	659	37	89		
Grp Sat Flow(s),veh/h/ln	1770	1744	1774	1770	1774	1583		
Q Serve(g_s), s	12.5	12.5	9.7	2.8	1.0	2.9		
Cycle Q Clear(g_c), s	12.5	12.5	9.7	2.8	1.0	2.9		
Prop In Lane		0.38	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	800	788	418	2705	146	130		
V/C Ratio(X)	0.67	0.67	0.83	0.24	0.25	0.68		
Avail Cap(c_a), veh/h	984	970	714	3665	612	546		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	11.3	11.3	18.9	1.8	22.4	23.3		
Incr Delay (d2), s/veh	1.3	1.3	4.2	0.0	0.9	6.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.3	6.2	5.2	1.3	0.5	1.5		
LnGrp Delay(d),s/veh	12.6	12.6	23.1	1.8	23.3	29.4		
LnGrp LOS	B	B	C	A	C	C		
Approach Vol, veh/h	1068			1005	126			
Approach Delay, s/veh	12.6			9.2	27.6			
Approach LOS	B			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.3	27.6				43.9		8.3
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	21.0	29.0				54.0		18.0
Max Q Clear Time (g_c+I1), s	11.7	14.5				4.8		4.9
Green Ext Time (p_c), s	0.7	9.1				16.5		0.3
Intersection Summary								
HCM 2010 Ctrl Delay			11.9					
HCM 2010 LOS			B					

Existing + Ambient Conditions - AM Peak Hour
14: Jefferson Street & Magnolia Avenue

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	866	81	69	533	117	108	147	70	113	150	107
Future Volume (veh/h)	71	866	81	69	533	117	108	147	70	113	150	107
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	89	1082	101	86	666	146	135	184	88	141	188	134
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	1238	115	108	1082	237	161	271	130	161	231	164
Arrive On Green	0.06	0.38	0.38	0.06	0.37	0.37	0.09	0.23	0.23	0.09	0.23	0.23
Sat Flow, veh/h	1774	3273	305	1774	2888	633	1774	1192	570	1774	1013	722
Grp Volume(v), veh/h	89	585	598	86	408	404	135	0	272	141	0	322
Grp Sat Flow(s),veh/h/ln	1774	1770	1809	1774	1770	1751	1774	0	1762	1774	0	1735
Q Serve(g_s), s	3.3	20.2	20.3	3.2	12.4	12.4	4.9	0.0	9.3	5.2	0.0	11.6
Cycle Q Clear(g_c), s	3.3	20.2	20.3	3.2	12.4	12.4	4.9	0.0	9.3	5.2	0.0	11.6
Prop In Lane	1.00		0.17	1.00		0.36	1.00		0.32	1.00		0.42
Lane Grp Cap(c), veh/h	114	669	684	108	663	656	161	0	401	161	0	395
V/C Ratio(X)	0.78	0.87	0.87	0.80	0.62	0.62	0.84	0.00	0.68	0.87	0.00	0.82
Avail Cap(c_a), veh/h	161	698	713	108	663	656	161	0	481	161	0	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.4	19.0	19.1	30.6	16.8	16.8	29.5	0.0	23.3	29.6	0.0	24.2
Incr Delay (d2), s/veh	14.5	11.5	11.4	33.3	1.7	1.7	30.1	0.0	3.0	37.3	0.0	9.0
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	2.1	11.9	12.1	2.5	6.3	6.3	3.7	0.0	4.9	4.2	0.0	6.5
LnGrp Delay(d),s/veh	44.9	30.6	30.5	63.9	18.5	18.5	59.6	0.0	26.2	66.9	0.0	33.2
LnGrp LOS	D	C	C	E	B	B	E		C	E		C
Approach Vol, veh/h	1272			898				407			463	
Approach Delay, s/veh	31.5			22.8				37.3			43.5	
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	8.0	28.9	10.0	19.0	8.2	28.7	10.0	19.0				
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	4.0	26.0	6.0	18.0	6.0	24.0	6.0	18.0				
Max Q Clear Time (g_c+I1), s	5.2	22.3	6.9	13.6	5.3	14.4	7.2	11.3				
Green Ext Time (p_c), s	0.0	2.7	0.0	1.4	0.0	7.2	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay	31.5											
HCM 2010 LOS	C											

Intersection												
Int Delay, s/veh		1.9										
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	8	0	67	0	540	83	75	480	0
Future Vol, veh/h	0	0	0	8	0	67	0	540	83	75	480	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	10	0	83	0	667	102	93	593	0
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1537	1547	593	1496	1496	718	593	0	0	769	0	0
Stage 1	778	778	-	718	718	-	-	-	-	-	-	-
Stage 2	759	769	-	778	778	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	95	114	506	101	123	429	983	-	-	845	-	-
Stage 1	389	407	-	420	433	-	-	-	-	-	-	-
Stage 2	399	411	-	389	407	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	67	95	506	88	103	429	983	-	-	845	-	-
Mov Cap-2 Maneuver	67	95	-	88	103	-	-	-	-	-	-	-
Stage 1	389	340	-	420	433	-	-	-	-	-	-	-
Stage 2	322	411	-	325	340	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			21.9			0			1.3		
HCM LOS	A			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	983	-	-	- 304	845	-	-					
HCM Lane V/C Ratio	-	-	-	- 0.305	0.11	-	-					
HCM Control Delay (s)	0	-	-	0 21.9	9.8	0	-					
HCM Lane LOS	A	-	-	A C	A	A	-					
HCM 95th %tile O(veh)	0	-	-	- 1.3	0.4	-	-					

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	61	107	65	116	4	8
Future Vol, veh/h	61	107	65	116	4	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	81	143	87	155	5	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	241	0	469
Stage 1	-	-	164
Stage 2	-	-	305
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1326	-	553
Stage 1	-	-	865
Stage 2	-	-	748
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1326	-	517
Mov Cap-2 Maneuver	-	-	517
Stage 1	-	-	865
Stage 2	-	-	699

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1326	-	-	-	714
HCM Lane V/C Ratio	0.061	-	-	-	0.022
HCM Control Delay (s)	7.9	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Intersection

Int Delay, s/veh 5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	33	50	65	3	0	128
Future Vol, veh/h	33	50	65	3	0	128
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	66	86	4	0	168

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	89	0	241
Stage 1	-	-	88
Stage 2	-	-	153
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1506	-	747
Stage 1	-	-	935
Stage 2	-	-	875
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1506	-	725
Mov Cap-2 Maneuver	-	-	725
Stage 1	-	-	935
Stage 2	-	-	849

Approach	EB	WB	SB
HCM Control Delay, s	3	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1506	-	-	-	970
HCM Lane V/C Ratio	0.029	-	-	-	0.174
HCM Control Delay (s)	7.5	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Existing + Ambient Conditions - PM Peak Hour
1: Adams Street & Garfield Street

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	11	40	26	4	19	44	766	35	20	584	19
Future Volume (veh/h)	27	11	40	26	4	19	44	766	35	20	584	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	28	11	41	27	4	19	45	782	36	20	596	19
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	188	19	71	235	12	53	72	1890	87	36	1849	59
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.04	0.55	0.55	0.02	0.53	0.53
Sat Flow, veh/h	564	228	833	877	145	626	1774	3446	159	1774	3501	112
Grp Volume(v), veh/h	80	0	0	50	0	0	45	402	416	20	301	314
Grp Sat Flow(s),veh/h/ln	1626	0	0	1647	0	0	1774	1770	1835	1774	1770	1843
Q Serve(g_s), s	0.7	0.0	0.0	0.0	0.0	0.0	0.9	4.6	4.6	0.4	3.4	3.4
Cycle Q Clear(g_c), s	1.6	0.0	0.0	0.9	0.0	0.0	0.9	4.6	4.6	0.4	3.4	3.4
Prop In Lane	0.35		0.51	0.54		0.38	1.00		0.09	1.00		0.06
Lane Grp Cap(c), veh/h	279	0	0	300	0	0	72	970	1006	36	934	973
V/C Ratio(X)	0.29	0.00	0.00	0.17	0.00	0.00	0.63	0.41	0.41	0.56	0.32	0.32
Avail Cap(c_a), veh/h	1035	0	0	1020	0	0	256	970	1006	205	934	973
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	0.0	14.9	0.0	0.0	16.4	4.6	4.6	16.8	4.7	4.7
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.0	0.0	8.6	1.3	1.3	12.8	0.9	0.9
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	0.0	0.0	0.5	0.0	0.0	0.6	2.6	2.7	0.3	1.8	1.9
LnGrp Delay(d),s/veh	15.7	0.0	0.0	15.2	0.0	0.0	24.9	5.9	5.8	29.7	5.6	5.5
LnGrp LOS	B			B			C	A	A	C	A	A
Approach Vol, veh/h		80			50			863			635	
Approach Delay, s/veh		15.7			15.2			6.8			6.3	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.9	5.4	22.3		6.9	4.7	23.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		20.0	5.0	18.0		20.0	4.0	19.0				
Max Q Clear Time (g_c+I1), s		3.6	2.9	5.4		2.9	2.4	6.6				
Green Ext Time (p_c), s		0.6	0.0	6.4		0.6	0.0	6.4				
Intersection Summary												
HCM 2010 Ctrl Delay			7.3									
HCM 2010 LOS			A									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	956	415	155	954	146	495	482	176	190	412	93
Future Volume (veh/h)	135	956	415	155	954	146	495	482	176	190	412	93
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1895	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	138	976	423	158	973	149	505	492	180	194	420	95
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	157	907	388	166	1152	176	588	801	380	230	542	122
Arrive On Green	0.09	0.37	0.37	0.09	0.37	0.37	0.17	0.23	0.23	0.13	0.19	0.19
Sat Flow, veh/h	1703	2465	1054	1810	3131	479	3510	3539	1680	1774	2874	645
Grp Volume(v), veh/h	138	711	688	158	559	563	505	492	180	194	257	258
Grp Sat Flow(s),veh/h/ln	1703	1805	1714	1810	1800	1810	1755	1770	1680	1774	1770	1749
Q Serve(g_s), s	7.0	32.0	32.0	7.6	24.8	24.8	12.2	10.9	8.1	9.3	12.0	12.2
Cycle Q Clear(g_c), s	7.0	32.0	32.0	7.6	24.8	24.8	12.2	10.9	8.1	9.3	12.0	12.2
Prop In Lane	1.00		0.61	1.00		0.26	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	157	664	631	166	663	666	588	801	380	230	334	330
V/C Ratio(X)	0.88	1.07	1.09	0.95	0.84	0.84	0.86	0.61	0.47	0.84	0.77	0.78
Avail Cap(c_a), veh/h	157	664	631	166	663	666	646	855	406	265	366	362
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	27.5	27.5	39.3	25.2	25.2	35.2	30.2	29.1	37.0	33.5	33.6
Incr Delay (d2), s/veh	39.6	55.2	63.0	54.7	9.7	9.8	10.6	1.2	0.9	19.2	8.9	9.7
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	5.0	26.1	26.1	6.3	14.1	14.2	6.8	5.5	3.8	5.8	6.7	6.8
LnGrp Delay(d),s/veh	78.6	82.7	90.5	94.0	34.9	35.0	45.8	31.4	30.1	56.2	42.4	43.3
LnGrp LOS	E	F	F	F	C	C	D	C	C	E	D	D
Approach Vol, veh/h	1537				1280				1177		709	
Approach Delay, s/veh	85.8				42.2				37.4		46.5	
Approach LOS	F				D				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	12.0	36.0	18.6	20.4	12.0	36.0	15.3	23.7				
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	8.0	32.0	16.0	18.0	8.0	32.0	13.0	21.0				
Max Q Clear Time (g_c+I1), s	9.6	34.0	14.2	14.2	9.0	26.8	11.3	12.9				
Green Ext Time (p_c), s	0.0	0.0	0.4	2.2	0.0	4.7	0.1	4.0				
Intersection Summary												
HCM 2010 Ctrl Delay			55.9									
HCM 2010 LOS			E									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	8	73	29	2	15	38	1036	17	9	919	81
Future Volume (veh/h)	107	8	73	29	2	15	38	1036	17	9	919	81
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1937	1900	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	115	9	78	31	2	16	41	1114	18	10	988	87
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	17	94	187	23	72	52	2538	41	17	2279	201
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.03	0.71	0.71	0.01	0.69	0.69
Sat Flow, veh/h	867	111	615	823	152	473	1774	3565	58	1774	3291	290
Grp Volume(v), veh/h	202	0	0	49	0	0	41	553	579	10	531	544
Grp Sat Flow(s),veh/h/ln	1594	0	0	1448	0	0	1774	1770	1853	1774	1770	1812
Q Serve(g_s), s	9.0	0.0	0.0	0.0	0.0	0.0	2.2	12.4	12.4	0.5	12.5	12.5
Cycle Q Clear(g_c), s	11.6	0.0	0.0	2.5	0.0	0.0	2.2	12.4	12.4	0.5	12.5	12.5
Prop In Lane	0.57		0.39	0.63		0.33	1.00		0.03	1.00		0.16
Lane Grp Cap(c), veh/h	302	0	0	282	0	0	52	1260	1319	17	1225	1254
V/C Ratio(X)	0.67	0.00	0.00	0.17	0.00	0.00	0.79	0.44	0.44	0.58	0.43	0.43
Avail Cap(c_a), veh/h	424	0	0	398	0	0	299	1260	1319	299	1225	1254
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.43	0.43	0.43
Uniform Delay (d), s/veh	38.9	0.0	0.0	35.2	0.0	0.0	45.8	5.7	5.7	46.8	6.4	6.4
Incr Delay (d2), s/veh	2.6	0.0	0.0	0.3	0.0	0.0	22.3	1.1	1.1	12.4	0.5	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	5.4	0.0	0.0	1.2	0.0	0.0	1.4	6.4	6.7	0.3	6.2	6.4
LnGrp Delay(d),s/veh	41.4	0.0	0.0	35.5	0.0	0.0	68.1	6.8	6.8	59.2	6.9	6.9
LnGrp LOS	D			D			E	A	A	E	A	A
Approach Vol, veh/h		202			49			1173			1085	
Approach Delay, s/veh		41.4			35.5			9.0			7.4	
Approach LOS		D			D			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.4	6.8	69.8		18.4	4.9	71.6				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		22.0	16.0	45.0		22.0	16.0	45.0				
Max Q Clear Time (g_c+I1), s		13.6	4.2	14.5		4.5	2.5	14.4				
Green Ext Time (p_c), s		0.9	0.0	17.5		1.3	0.0	17.5				
Intersection Summary												
HCM 2010 Ctrl Delay			11.4									
HCM 2010 LOS			B									

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	3	97	98	1089	1012	19
Future Vol, veh/h	3	97	98	1089	1012	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	97	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	102	103	1146	1065	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1854	543	1085	0	-	0
Stage 1	1075	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	65	484	639	-	-	-
Stage 1	289	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	55	484	639	-	-	-
Mov Cap-2 Maneuver	55	-	-	-	-	-
Stage 1	289	-	-	-	-	-
Stage 2	346	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.5	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	639	-	392	-	-
HCM Lane V/C Ratio	0.161	-	0.269	-	-
HCM Control Delay (s)	11.7	-	17.5	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.6	-	1.1	-	-

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	125	0	0	10	0	1194	43	0	1118	24
Future Vol, veh/h	0	0	125	0	0	10	0	1194	43	0	1118	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	130	0	0	10	0	1244	45	0	1165	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1799	2466	595	1732	2456	644	1190	0	0	1289	0	0
Stage 1	1177	1177	-	1266	1266	-	-	-	-	-	-	-
Stage 2	622	1289	-	466	1190	-	-	-	-	-	-	-
Critical Hdwy	6.95	6.5	7.1	6.95	6.5	6.9	5.3	-	-	4.1	-	-
Critical Hdwy Stg 1	7.3	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.7	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4	3.9	3.65	4	3.3	3.1	-	-	2.2	-	-
Pot Cap-1 Maneuver	67	31	387	74	31	420	322	-	-	545	-	-
Stage 1	155	267	-	178	242	-	-	-	-	-	-	-
Stage 2	433	236	-	520	263	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	65	31	387	49	31	420	322	-	-	545	-	-
Mov Cap-2 Maneuver	65	31	-	49	31	-	-	-	-	-	-	-
Stage 1	155	267	-	178	242	-	-	-	-	-	-	-
Stage 2	422	236	-	345	263	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.9	13.8	0	0
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	322	-	-	387 420	545	-	-
HCM Lane V/C Ratio	-	-	-	0.336 0.025	-	-	-
HCM Control Delay (s)	0	-	-	18.9 13.8	0	-	-
HCM Lane LOS	A	-	-	C B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.5 0.1	0	-	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	224	0	439	356	734	0	0	687	499
Future Volume (veh/h)	0	0	0	224	0	439	356	734	0	0	687	499
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				231	166	342	367	757	0	0	708	514
Adj No. of Lanes				0	1	1	1	2	0	0	3	0
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				258	186	389	576	2388	0	0	1051	491
Arrive On Green				0.25	0.25	0.25	0.65	1.00	0.00	0.00	0.31	0.31
Sat Flow, veh/h				1053	757	1583	1774	3632	0	0	3558	1583
Grp Volume(v), veh/h				397	0	342	367	757	0	0	708	514
Grp Sat Flow(s),veh/h/ln				1810	0	1583	1774	1770	0	0	1695	1583
Q Serve(g_s), s				21.2	0.0	20.8	12.4	0.0	0.0	0.0	18.2	31.0
Cycle Q Clear(g_c), s				21.2	0.0	20.8	12.4	0.0	0.0	0.0	18.2	31.0
Prop In Lane				0.58		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				444	0	389	576	2388	0	0	1051	491
V/C Ratio(X)				0.89	0.00	0.88	0.64	0.32	0.00	0.00	0.67	1.05
Avail Cap(c_a), veh/h				489	0	427	576	2388	0	0	1051	491
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.21	0.21	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.5	0.0	36.3	14.0	0.0	0.0	0.0	30.1	34.5
Incr Delay (d2), s/veh				17.6	0.0	17.6	0.5	0.1	0.0	0.0	3.5	53.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.8	0.0	11.0	6.0	0.0	0.0	0.0	9.0	20.8
LnGrp Delay(d),s/veh				54.1	0.0	53.9	14.5	0.1	0.0	0.0	33.5	88.0
LnGrp LOS				D		D	B	A			C	F
Approach Vol, veh/h					739			1124			1222	
Approach Delay, s/veh					54.0			4.8			56.5	
Approach LOS					D			A			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			36.5	35.0		28.5		71.5				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			30.0	31.0		27.0		65.0				
Max Q Clear Time (g_c+I1), s			14.4	33.0		23.2		2.0				
Green Ext Time (p_c), s			5.3	0.0		1.3		7.0				
Intersection Summary												
HCM 2010 Ctrl Delay			37.0									
HCM 2010 LOS			D									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			 	
Traffic Volume (veh/h)	667	10	709	0	0	0	0	430	376	487	427	0
Future Volume (veh/h)	667	10	709	0	0	0	0	430	376	487	427	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	717	11	762				0	462	404	524	459	0
Adj No. of Lanes	0	1	1				0	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	717	11	649				0	556	260	543	1805	0
Arrive On Green	0.41	0.41	0.41				0.00	0.16	0.16	0.51	0.85	0.00
Sat Flow, veh/h	1748	27	1583				0	3558	1583	1774	3632	0
Grp Volume(v), veh/h	728	0	762				0	462	404	524	459	0
Grp Sat Flow(s),veh/h/ln	1775	0	1583				0	1695	1583	1774	1770	0
Q Serve(g_s), s	41.0	0.0	41.0				0.0	13.2	16.4	28.5	2.5	0.0
Cycle Q Clear(g_c), s	41.0	0.0	41.0				0.0	13.2	16.4	28.5	2.5	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	728	0	649				0	556	260	543	1805	0
V/C Ratio(X)	1.00	0.00	1.17				0.00	0.83	1.56	0.97	0.25	0.00
Avail Cap(c_a), veh/h	728	0	649				0	556	260	550	1805	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.67	1.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.77	0.77	0.74	0.74	0.00
Uniform Delay (d), s/veh	29.5	0.0	29.5				0.0	40.5	41.8	23.9	3.8	0.0
Incr Delay (d2), s/veh	33.4	0.0	93.8				0.0	10.8	264.6	24.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.8	0.0	34.8				0.0	7.0	26.2	17.3	1.2	0.0
LnGrp Delay(d),s/veh	62.9	0.0	123.3				0.0	51.2	306.4	48.5	4.1	0.0
LnGrp LOS	F		F					D	F	D	A	
Approach Vol, veh/h		1490						866			983	
Approach Delay, s/veh		93.8						170.3			27.8	
Approach LOS		F						F			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		45.0		55.0			34.6	20.4				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		41.0		51.0			31.0	16.0				
Max Q Clear Time (g_c+l1), s		43.0		4.5			30.5	18.4				
Green Ext Time (p_c), s		0.0		10.7			0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			94.2									
HCM 2010 LOS			F									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	350	57	36	220	200	40	460	50	285	664	149
Future Volume (veh/h)	184	350	57	36	220	200	40	460	50	285	664	149
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	211	402	66	41	253	230	46	529	57	328	763	171
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	853	139	52	286	251	161	742	80	534	1265	283
Arrive On Green	0.15	0.28	0.28	0.03	0.16	0.16	0.09	0.23	0.23	0.60	0.88	0.88
Sat Flow, veh/h	1774	3048	497	1774	1790	1566	1774	3225	346	1774	2874	644
Grp Volume(v), veh/h	211	232	236	41	250	233	46	290	296	328	470	464
Grp Sat Flow(s),veh/h/ln	1774	1770	1775	1774	1770	1586	1774	1770	1802	1774	1770	1749
Q Serve(g_s), s	11.5	10.9	11.0	2.3	13.8	14.5	2.4	15.1	15.2	11.7	6.8	6.8
Cycle Q Clear(g_c), s	11.5	10.9	11.0	2.3	13.8	14.5	2.4	15.1	15.2	11.7	6.8	6.8
Prop In Lane	1.00		0.28	1.00		0.99	1.00		0.19	1.00		0.37
Lane Grp Cap(c), veh/h	265	495	497	52	283	254	161	407	414	534	779	770
V/C Ratio(X)	0.80	0.47	0.47	0.79	0.88	0.92	0.29	0.71	0.72	0.61	0.60	0.60
Avail Cap(c_a), veh/h	319	495	497	106	283	254	161	407	414	534	779	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.71	0.71	0.71
Uniform Delay (d), s/veh	41.1	29.8	29.9	48.2	41.1	41.4	42.4	35.4	35.5	16.3	3.8	3.8
Incr Delay (d2), s/veh	11.1	0.7	0.7	22.7	26.2	35.3	0.9	9.9	9.9	1.5	2.4	2.5
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	6.4	5.4	5.5	1.5	8.8	8.8	1.2	8.4	8.6	5.9	3.4	3.4
LnGrp Delay(d),s/veh	52.2	30.5	30.6	70.9	67.3	76.6	43.4	45.3	45.4	17.8	6.2	6.2
LnGrp LOS	D	C	C	E	E	E	D	D	D	B	A	A
Approach Vol, veh/h		679			524			632			1262	
Approach Delay, s/veh		37.3			71.7			45.2			9.2	
Approach LOS		D			E			D			A	
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	6.9	32.0	13.1	48.0	18.9	20.0	34.1	27.0				
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	6.0	28.0	6.0	44.0	18.0	16.0	27.0	23.0				
Max Q Clear Time (g_c+I1), s	4.3	13.0	4.4	8.8	13.5	16.5	13.7	17.2				
Green Ext Time (p_c), s	0.0	3.1	0.2	6.3	1.5	0.0	0.9	1.6				
Intersection Summary												
HCM 2010 Ctrl Delay			33.3									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	146	14	12	277	77	4	135	8	130	314	101
Future Volume (veh/h)	56	146	14	12	277	77	4	135	8	130	314	101
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	68	178	17	15	338	94	5	165	10	159	383	123
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	774	73	26	560	153	9	1140	69	202	1175	373
Arrive On Green	0.05	0.24	0.24	0.01	0.20	0.20	0.01	0.34	0.34	0.11	0.44	0.44
Sat Flow, veh/h	1774	3269	309	1774	2747	753	1774	3392	204	1774	2645	839
Grp Volume(v), veh/h	68	96	99	15	216	216	5	86	89	159	255	251
Grp Sat Flow(s),veh/h/ln	1774	1770	1808	1774	1770	1730	1774	1770	1827	1774	1770	1715
Q Serve(g_s), s	2.0	2.3	2.4	0.5	5.9	6.1	0.2	1.8	1.8	4.7	5.0	5.1
Cycle Q Clear(g_c), s	2.0	2.3	2.4	0.5	5.9	6.1	0.2	1.8	1.8	4.7	5.0	5.1
Prop In Lane	1.00		0.17	1.00		0.44	1.00		0.11	1.00		0.49
Lane Grp Cap(c), veh/h	85	419	428	26	361	352	9	595	614	202	786	762
V/C Ratio(X)	0.80	0.23	0.23	0.57	0.60	0.61	0.53	0.14	0.15	0.79	0.32	0.33
Avail Cap(c_a), veh/h	132	628	641	132	628	613	132	595	614	265	786	762
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	16.5	16.5	26.2	19.3	19.4	26.6	12.4	12.4	23.1	9.7	9.7
Incr Delay (d2), s/veh	16.9	0.3	0.3	17.6	1.6	1.7	38.5	0.5	0.5	11.1	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.2	1.2	0.3	3.0	3.0	0.2	1.0	1.0	2.9	2.6	2.6
LnGrp Delay(d),s/veh	42.2	16.8	16.8	43.8	20.9	21.1	65.1	12.9	12.9	34.2	10.8	10.9
LnGrp LOS	D	B	B	D	C	C	E	B	B	C	B	B
Approach Vol, veh/h		263			447			180			665	
Approach Delay, s/veh		23.3			21.8			14.4			16.4	
Approach LOS		C			C			B			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	4.8	16.7	4.3	27.8	6.6	14.9	10.1	22.0				
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	4.0	19.0	4.0	22.0	4.0	19.0	8.0	18.0				
Max Q Clear Time (g_c+I1), s	2.5	4.4	2.2	7.1	4.0	8.1	6.7	3.8				
Green Ext Time (p_c), s	0.0	3.3	0.0	3.2	0.0	2.8	0.0	3.2				
Intersection Summary												
HCM 2010 Ctrl Delay			18.9									
HCM 2010 LOS			B									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	1272	104	73	1010	72	84	304	36	95	350	204
Future Volume (veh/h)	135	1272	104	73	1010	72	84	304	36	95	350	204
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	148	1398	114	80	1110	79	92	334	40	104	385	224
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	1371	111	102	1233	88	105	744	88	105	507	291
Arrive On Green	0.10	0.41	0.41	0.06	0.37	0.37	0.06	0.23	0.23	0.06	0.23	0.23
Sat Flow, veh/h	1774	3316	269	1774	3352	238	1774	3187	379	1774	2168	1245
Grp Volume(v), veh/h	148	743	769	80	586	603	92	184	190	104	313	296
Grp Sat Flow(s),veh/h/ln	1774	1770	1815	1774	1770	1821	1774	1770	1796	1774	1770	1643
Q Serve(g_s), s	5.5	28.0	28.0	3.0	21.2	21.2	3.5	6.0	6.1	4.0	11.2	11.4
Cycle Q Clear(g_c), s	5.5	28.0	28.0	3.0	21.2	21.2	3.5	6.0	6.1	4.0	11.2	11.4
Prop In Lane	1.00		0.15	1.00		0.13	1.00		0.21	1.00		0.76
Lane Grp Cap(c), veh/h	183	732	751	102	651	670	105	413	420	105	413	384
V/C Ratio(X)	0.81	1.02	1.02	0.78	0.90	0.90	0.88	0.45	0.45	0.99	0.76	0.77
Avail Cap(c_a), veh/h	183	732	751	105	653	672	105	470	477	105	470	437
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	19.9	19.9	31.5	20.2	20.2	31.6	22.2	22.2	31.8	24.2	24.3
Incr Delay (d2), s/veh	22.7	37.3	39.1	30.5	15.5	15.3	51.6	0.8	0.8	85.4	6.1	7.3
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	3.9	21.0	21.9	2.3	13.1	13.4	3.2	3.0	3.1	4.4	6.1	6.0
LnGrp Delay(d),s/veh	52.4	57.2	58.9	62.0	35.8	35.5	83.2	23.0	23.0	117.3	30.3	31.5
LnGrp LOS	D	F	F	E	D	D	F	C	C	F	C	C
Approach Vol, veh/h		1660			1269			466			713	
Approach Delay, s/veh		57.6			37.3			34.9			43.5	
Approach LOS		E			D			C			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	7.9	32.0	8.0	19.8	11.0	28.9	8.0	19.8				
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	4.0	28.0	4.0	18.0	7.0	25.0	4.0	18.0				
Max Q Clear Time (g_c+I1), s	5.0	30.0	5.5	13.4	7.5	23.2	6.0	8.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	1.7	0.0	4.3				
Intersection Summary												
HCM 2010 Ctrl Delay			46.3									
HCM 2010 LOS			D									

Existing + Ambient Conditions - PM Peak Hour
11: Overland Street & Magnolia Avenue

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1408	32	16	1159	12	16	9	8	3	10	20
Future Volume (veh/h)	35	1408	32	16	1159	12	16	9	8	3	10	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	36	1467	33	17	1207	12	17	9	8	3	10	21
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	462	2638	59	378	2676	27	179	23	20	107	27	56
Arrive On Green	0.75	0.75	0.75	0.75	0.75	0.75	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	456	3539	80	348	3590	36	812	430	382	151	503	1056
Grp Volume(v), veh/h	36	733	767	17	595	624	34	0	0	34	0	0
Grp Sat Flow(s),veh/h/ln	456	1770	1849	348	1770	1856	1623	0	0	1710	0	0
Q Serve(g_s), s	1.3	7.1	7.2	0.9	5.1	5.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.4	7.1	7.2	8.1	5.1	5.1	0.7	0.0	0.0	0.7	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.02	0.50		0.24	0.09		0.62
Lane Grp Cap(c), veh/h	462	1319	1378	378	1319	1384	222	0	0	190	0	0
V/C Ratio(X)	0.08	0.56	0.56	0.04	0.45	0.45	0.15	0.00	0.00	0.18	0.00	0.00
Avail Cap(c_a), veh/h	513	1516	1583	417	1516	1590	833	0	0	844	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	3.2	2.2	2.2	4.0	1.9	1.9	18.1	0.0	0.0	18.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.0	0.2	0.2	0.3	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	0.2	3.4	3.5	0.1	2.4	2.5	0.4	0.0	0.0	0.4	0.0	0.0
LnGrp Delay(d),s/veh	3.2	2.6	2.6	4.0	2.2	2.2	18.5	0.0	0.0	18.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B			B		
Approach Vol, veh/h	1536				1236		34				34	
Approach Delay, s/veh	2.6				2.2		18.5				18.6	
Approach LOS	A				A		B				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	33.6		6.1		33.6		6.1					
Change Period (Y+Rc), s	4.0		4.0		4.0		4.0					
Max Green Setting (Gmax), s	34.0		18.0		34.0		18.0					
Max Q Clear Time (g_c+I1), s	9.2		2.7		10.1		2.7					
Green Ext Time (p_c), s	20.1		0.2		19.5		0.2					
Intersection Summary												
HCM 2010 Ctrl Delay			2.8									
HCM 2010 LOS			A									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1197	79	147	935	68	86	306	96	67	340	63
Future Volume (veh/h)	81	1197	79	147	935	68	86	306	96	67	340	63
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	1360	90	167	1062	77	98	348	109	76	386	72
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	117	1376	91	201	1515	110	121	488	415	98	381	71
Arrive On Green	0.07	0.40	0.40	0.11	0.44	0.44	0.07	0.26	0.26	0.05	0.24	0.24
Sat Flow, veh/h	1737	3438	227	1810	3414	247	1810	1900	1615	1810	1558	291
Grp Volume(v), veh/h	92	712	738	167	561	578	98	348	109	76	0	458
Grp Sat Flow(s),veh/h/ln	1737	1805	1860	1810	1805	1856	1810	1900	1615	1810	0	1849
Q Serve(g_s), s	4.7	35.2	35.5	8.1	22.6	22.6	4.8	15.0	4.8	3.7	0.0	22.0
Cycle Q Clear(g_c), s	4.7	35.2	35.5	8.1	22.6	22.6	4.8	15.0	4.8	3.7	0.0	22.0
Prop In Lane	1.00		0.12	1.00		0.13	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	117	722	744	201	801	824	121	488	415	98	0	452
V/C Ratio(X)	0.79	0.99	0.99	0.83	0.70	0.70	0.81	0.71	0.26	0.77	0.00	1.01
Avail Cap(c_a), veh/h	154	722	744	201	801	824	121	488	415	141	0	452
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.3	26.7	26.8	39.2	20.2	20.2	41.4	30.4	26.6	42.0	0.0	34.0
Incr Delay (d2), s/veh	17.8	30.0	30.7	24.6	2.7	2.7	32.8	4.9	0.3	15.2	0.0	45.7
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	2.8	23.4	24.4	5.5	11.8	12.2	3.5	8.5	2.2	2.3	0.0	16.9
LnGrp Delay(d),s/veh	59.1	56.7	57.6	63.8	22.9	22.9	74.2	35.3	27.0	57.2	0.0	79.7
LnGrp LOS	E	E	E	E	C	C	E	D	C	E		F
Approach Vol, veh/h		1542			1306			555			534	
Approach Delay, s/veh		57.3			28.1			40.5			76.5	
Approach LOS		E			C			D			E	
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	14.0	40.0	10.0	26.0	10.0	43.9	8.9	27.1				
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	10.0	36.0	6.0	22.0	8.0	38.0	7.0	21.0				
Max Q Clear Time (g_c+I1), s	10.1	37.5	6.8	24.0	6.7	24.6	5.7	17.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	11.3	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay				47.8								
HCM 2010 LOS				D								

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑		↑	↑↑	↑	↑		
Traffic Volume (veh/h)	1219	160	252	1236	146	229		
Future Volume (veh/h)	1219	160	252	1236	146	229		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1297	170	268	1315	155	244		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1510	197	310	2505	327	292		
Arrive On Green	0.48	0.48	0.17	0.71	0.18	0.18		
Sat Flow, veh/h	3243	410	1774	3632	1774	1583		
Grp Volume(v), veh/h	726	741	268	1315	155	244		
Grp Sat Flow(s),veh/h/ln	1770	1790	1774	1770	1774	1583		
Q Serve(g_s), s	26.8	27.3	10.9	12.8	5.8	11.0		
Cycle Q Clear(g_c), s	26.8	27.3	10.9	12.8	5.8	11.0		
Prop In Lane		0.23	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	848	858	310	2505	327	292		
V/C Ratio(X)	0.86	0.86	0.87	0.52	0.47	0.84		
Avail Cap(c_a), veh/h	860	870	335	2579	431	385		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	17.0	17.1	29.7	5.0	27.0	29.2		
Incr Delay (d2), s/veh	8.4	8.9	19.5	0.2	1.1	11.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	14.9	15.5	7.0	6.1	2.9	5.7		
LnGrp Delay(d),s/veh	25.4	26.1	49.2	5.2	28.1	40.8		
LnGrp LOS	C	C	D	A	C	D		
Approach Vol, veh/h	1467			1583	399			
Approach Delay, s/veh	25.7			12.7	35.9			
Approach LOS	C			B	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.9	39.5				56.5		17.7
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	14.0	36.0				54.0		18.0
Max Q Clear Time (g_c+I1), s	12.9	29.3				14.8		13.0
Green Ext Time (p_c), s	0.1	6.3				29.4		0.6
Intersection Summary								
HCM 2010 Ctrl Delay			20.9					
HCM 2010 LOS			C					

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	907	92	62	922	105	63	209	55	72	237	82
Future Volume (veh/h)	95	907	92	62	922	105	63	209	55	72	237	82
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	101	965	98	66	981	112	67	222	59	77	252	87
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	1265	128	84	1167	133	85	381	101	98	366	126
Arrive On Green	0.07	0.39	0.39	0.05	0.36	0.36	0.05	0.27	0.27	0.06	0.28	0.28
Sat Flow, veh/h	1774	3245	329	1774	3202	366	1774	1419	377	1774	1325	457
Grp Volume(v), veh/h	101	526	537	66	542	551	67	0	281	77	0	339
Grp Sat Flow(s),veh/h/ln	1774	1770	1805	1774	1770	1798	1774	0	1796	1774	0	1782
Q Serve(g_s), s	3.8	17.3	17.3	2.5	18.8	18.8	2.5	0.0	9.1	2.9	0.0	11.4
Cycle Q Clear(g_c), s	3.8	17.3	17.3	2.5	18.8	18.8	2.5	0.0	9.1	2.9	0.0	11.4
Prop In Lane	1.00		0.18	1.00		0.20	1.00		0.21	1.00		0.26
Lane Grp Cap(c), veh/h	129	690	704	84	645	655	85	0	483	98	0	492
V/C Ratio(X)	0.78	0.76	0.76	0.79	0.84	0.84	0.79	0.00	0.58	0.78	0.00	0.69
Avail Cap(c_a), veh/h	159	713	727	106	660	671	132	0	483	132	0	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	17.7	17.7	31.6	19.5	19.5	31.6	0.0	21.2	31.2	0.0	21.7
Incr Delay (d2), s/veh	18.1	4.7	4.6	25.9	9.4	9.3	15.3	0.0	5.1	19.1	0.0	7.7
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	2.5	9.2	9.4	1.8	10.7	10.9	1.6	0.0	5.2	1.9	0.0	6.6
LnGrp Delay(d),s/veh	48.7	22.5	22.4	57.5	28.9	28.8	46.8	0.0	26.3	50.3	0.0	29.4
LnGrp LOS	D	C	C	E	C	C	D		C	D		C
Approach Vol, veh/h		1164			1159			348			416	
Approach Delay, s/veh		24.7			30.5			30.3			33.2	
Approach LOS		C			C			C			C	
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	7.2	30.1	7.2	22.5	8.9	28.4	7.7	22.0				
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	4.0	27.0	5.0	18.0	6.0	25.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.5	19.3	4.5	13.4	5.8	20.8	4.9	11.1				
Green Ext Time (p_c), s	0.0	6.3	0.0	1.5	0.0	3.6	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			28.6									
HCM 2010 LOS			C									

Intersection												
Int Delay, s/veh	3.6											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	52	0	48	0	426	37	56	449	0
Future Vol, veh/h	0	0	0	52	0	48	0	426	37	56	449	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	60	0	56	0	495	43	65	522	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1197	1190	522	1169	1169	517	522	0	0	538	0	0
Stage 1	652	652	-	517	517	-	-	-	-	-	-	-
Stage 2	545	538	-	652	652	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	163	188	555	170	193	558	1044	-	-	1030	-	-
Stage 1	457	464	-	541	534	-	-	-	-	-	-	-
Stage 2	523	522	-	457	464	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	137	171	555	158	176	558	1044	-	-	1030	-	-
Mov Cap-2 Maneuver	137	171	-	158	176	-	-	-	-	-	-	-
Stage 1	457	423	-	541	534	-	-	-	-	-	-	-
Stage 2	471	522	-	416	423	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	33.1	0	1
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1044	-	-	- 241	1030	-	-
HCM Lane V/C Ratio	-	-	-	- 0.482	0.063	-	-
HCM Control Delay (s)	0	-	-	0 33.1	8.7	0	-
HCM Lane LOS	A	-	-	A D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	- 2.4	0.2	-	-

Intersection

Int Delay, s/veh 4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	20	75	79	56	95	29
Future Vol, veh/h	20	75	79	56	95	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	77	81	58	98	30

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	139	0	229
Stage 1	-	-	110
Stage 2	-	-	119
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1445	-	759
Stage 1	-	-	915
Stage 2	-	-	906
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1445	-	748
Mov Cap-2 Maneuver	-	-	748
Stage 1	-	-	915
Stage 2	-	-	892

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1445	-	-	-	786
HCM Lane V/C Ratio	0.014	-	-	-	0.163
HCM Control Delay (s)	7.5	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection

Int Delay, s/veh 4.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	81	112	40	2	8	82
Future Vol, veh/h	81	112	40	2	8	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	86	119	43	2	9	87

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	45	0	335
Stage 1	-	-	44
Stage 2	-	-	291
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1563	-	660
Stage 1	-	-	978
Stage 2	-	-	759
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1563	-	621
Mov Cap-2 Maneuver	-	-	621
Stage 1	-	-	978
Stage 2	-	-	714

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1563	-	-	-	970
HCM Lane V/C Ratio	0.055	-	-	-	0.099
HCM Control Delay (s)	7.4	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Existing + Ambient + Project Conditions - AM Peak Hour
1: Adams Street & Garfield Street

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	62	143	42	39	64	95	824	25	48	928	19
Future Volume (veh/h)	21	62	143	42	39	64	95	824	25	48	928	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	25	75	172	51	47	77	114	993	30	58	1118	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	122	241	173	143	171	150	1646	50	80	1523	31
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.08	0.47	0.47	0.05	0.43	0.43
Sat Flow, veh/h	78	525	1038	321	615	736	1774	3508	106	1774	3547	73
Grp Volume(v), veh/h	272	0	0	175	0	0	114	501	522	58	558	583
Grp Sat Flow(s),veh/h/ln	1642	0	0	1672	0	0	1774	1770	1844	1774	1770	1850
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	3.0	9.9	9.9	1.5	12.4	12.4
Cycle Q Clear(g_c), s	7.1	0.0	0.0	4.1	0.0	0.0	3.0	9.9	9.9	1.5	12.4	12.4
Prop In Lane	0.09		0.63	0.29		0.44	1.00		0.06	1.00		0.04
Lane Grp Cap(c), veh/h	464	0	0	486	0	0	150	830	865	80	760	794
V/C Ratio(X)	0.59	0.00	0.00	0.36	0.00	0.00	0.76	0.60	0.60	0.73	0.73	0.73
Avail Cap(c_a), veh/h	703	0	0	704	0	0	675	830	865	675	823	860
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	0.0	15.5	0.0	0.0	21.2	9.3	9.3	22.3	11.2	11.2
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.4	0.0	0.0	7.6	1.2	1.2	11.7	3.2	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	2.0	0.0	0.0	1.8	5.0	5.2	1.0	6.6	6.8
LnGrp Delay(d),s/veh	17.8	0.0	0.0	16.0	0.0	0.0	28.7	10.5	10.5	34.0	14.4	14.3
LnGrp LOS	B			B			C	B	B	C	B	B
Approach Vol, veh/h		272			175			1137			1199	
Approach Delay, s/veh		17.8			16.0			12.3			15.3	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.0	8.0	24.3		15.0	6.1	26.2				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	18.0	22.0		18.0	18.0	22.0				
Max Q Clear Time (g_c+I1), s		9.1	5.0	14.4		6.1	3.5	11.9				
Green Ext Time (p_c), s		1.9	0.2	5.9		2.2	0.1	7.7				
Intersection Summary												
HCM 2010 Ctrl Delay			14.4									
HCM 2010 LOS			B									

Existing + Ambient + Project Conditions - AM Peak Hour
2: Adams Street & Magnolia Avenue

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	646	200	155	450	263	404	648	280	261	756	98
Future Volume (veh/h)	98	646	200	155	450	263	404	648	280	261	756	98
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1886	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	111	734	227	176	511	299	459	736	318	297	859	111
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	139	742	229	206	666	389	546	861	409	333	869	112
Arrive On Green	0.08	0.27	0.27	0.11	0.31	0.31	0.16	0.24	0.24	0.19	0.28	0.28
Sat Flow, veh/h	1703	2717	840	1810	2181	1273	3510	3539	1680	1774	3153	407
Grp Volume(v), veh/h	111	488	473	176	420	390	459	736	318	297	482	488
Grp Sat Flow(s),veh/h/ln	1703	1805	1752	1810	1792	1662	1755	1770	1680	1774	1770	1791
Q Serve(g_s), s	5.6	23.7	23.7	8.4	18.7	18.7	11.2	17.5	15.5	14.4	23.8	23.8
Cycle Q Clear(g_c), s	5.6	23.7	23.7	8.4	18.7	18.7	11.2	17.5	15.5	14.4	23.8	23.8
Prop In Lane	1.00		0.48	1.00		0.77	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	139	493	478	206	547	508	546	861	409	333	488	494
V/C Ratio(X)	0.80	0.99	0.99	0.85	0.77	0.77	0.84	0.85	0.78	0.89	0.99	0.99
Avail Cap(c_a), veh/h	174	493	478	206	547	508	639	886	420	363	488	494
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	31.8	31.8	38.2	27.7	27.7	36.1	31.8	31.0	34.8	31.7	31.7
Incr Delay (d2), s/veh	18.6	37.7	38.3	27.9	6.4	7.1	8.7	8.0	8.8	21.9	37.7	37.4
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	3.4	16.8	16.4	5.8	10.2	9.6	6.1	9.4	8.2	9.0	16.6	16.8
LnGrp Delay(d),s/veh	58.3	69.5	70.1	66.1	34.1	34.8	44.7	39.8	39.8	56.7	69.4	69.1
LnGrp LOS	E	E	E	E	C	C	D	D	D	E	E	E
Approach Vol, veh/h		1072			986			1513			1267	
Approach Delay, s/veh		68.6			40.1			41.3			66.3	
Approach LOS		E			D			D			E	
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	14.0	28.0	17.7	28.2	11.1	30.9	20.5	25.4				
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	10.0	24.0	16.0	24.0	9.0	25.0	18.0	22.0				
Max Q Clear Time (g_c+I1), s	10.4	25.7	13.2	25.8	7.6	20.7	16.4	19.5				
Green Ext Time (p_c), s	0.0	0.0	0.5	0.0	0.0	3.3	0.2	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay			53.7									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	4	104	49	4	20	544	1141	13	10	894	91
Future Volume (veh/h)	17	4	104	49	4	20	544	1141	13	10	894	91
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1937	1900	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	20	5	125	59	5	24	655	1375	16	12	1077	110
Adj No. of Lanes	1	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	10	238	128	18	34	581	2616	30	20	1342	137
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.11	0.24	0.24	0.01	0.41	0.41
Sat Flow, veh/h	1375	64	1593	488	122	229	1774	3583	42	1774	3243	331
Grp Volume(v), veh/h	20	0	130	88	0	0	655	679	712	12	587	600
Grp Sat Flow(s),veh/h/ln	1375	0	1656	839	0	0	1774	1770	1855	1774	1770	1804
Q Serve(g_s), s	0.0	0.0	8.0	5.4	0.0	0.0	36.0	36.7	36.7	0.7	32.0	32.1
Cycle Q Clear(g_c), s	1.5	0.0	8.0	13.3	0.0	0.0	36.0	36.7	36.7	0.7	32.0	32.1
Prop In Lane	1.00		0.96	0.67		0.27	1.00		0.02	1.00		0.18
Lane Grp Cap(c), veh/h	259	0	248	180	0	0	581	1292	1355	20	733	747
V/C Ratio(X)	0.08	0.00	0.52	0.49	0.00	0.00	1.13	0.53	0.53	0.61	0.80	0.80
Avail Cap(c_a), veh/h	428	0	452	354	0	0	581	1292	1355	323	733	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	40.4	0.0	43.2	47.4	0.0	0.0	49.1	25.2	25.2	54.1	28.3	28.3
Incr Delay (d2), s/veh	0.1	0.0	1.7	2.0	0.0	0.0	77.9	1.5	1.5	2.7	0.9	0.9
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	0.0	3.8	2.7	0.0	0.0	30.2	18.6	19.4	0.4	15.8	16.2
LnGrp Delay(d),s/veh	40.5	0.0	44.9	49.4	0.0	0.0	126.9	26.7	26.7	56.8	29.2	29.2
LnGrp LOS	D		D	D			F	C	C	E	C	C
Approach Vol, veh/h		150			88			2046			1199	
Approach Delay, s/veh		44.3			49.4			58.8			29.4	
Approach LOS		D			D			E			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.5	40.0	49.5		20.5	5.2	84.3				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		30.0	36.0	32.0		30.0	20.0	48.0				
Max Q Clear Time (g_c+I1), s		10.0	38.0	34.1		15.3	2.7	38.7				
Green Ext Time (p_c), s		1.3	0.0	0.0		1.1	0.0	8.0				
Intersection Summary												
HCM 2010 Ctrl Delay			47.8									
HCM 2010 LOS			D									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	8	1682	17	0	990
Future Vol, veh/h	0	8	1682	17	0	990
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	10	2027	20	0	1193
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2514	1023	0	0	2047	0
Stage 1	2037	-	-	-	-	-
Stage 2	477	-	-	-	-	-
Critical Hdwy	6.25	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.65	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	35	237	-	-	279	-
Stage 1	88	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	35	237	-	-	279	-
Mov Cap-2 Maneuver	35	-	-	-	-	-
Stage 1	88	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	20.8	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 237	279	-		
HCM Lane V/C Ratio	-	- 0.041	-	-		
HCM Control Delay (s)	-	- 20.8	0	-		
HCM Lane LOS	-	- C	A	-		
HCM 95th %tile Q(veh)	-	- 0.1	0	-		

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	351	0	700	217	932	0	0	605	458
Future Volume (veh/h)	0	0	0	351	0	700	217	932	0	0	605	458
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				423	315	633	261	1123	0	0	729	552
Adj No. of Lanes				0	1	1	1	2	0	0	3	0
Peak Hour Factor				0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				434	323	662	295	1802	0	0	1039	485
Arrive On Green				0.42	0.42	0.42	0.05	0.17	0.00	0.00	0.10	0.10
Sat Flow, veh/h				1038	773	1583	1774	3632	0	0	3558	1583
Grp Volume(v), veh/h				738	0	633	261	1123	0	0	729	552
Grp Sat Flow(s),veh/h/ln				1811	0	1583	1774	1770	0	0	1695	1583
Q Serve(g_s), s				44.0	0.0	42.6	16.1	32.4	0.0	0.0	22.9	33.7
Cycle Q Clear(g_c), s				44.0	0.0	42.6	16.1	32.4	0.0	0.0	22.9	33.7
Prop In Lane				0.57		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				757	0	662	295	1802	0	0	1039	485
V/C Ratio(X)				0.97	0.00	0.96	0.89	0.62	0.00	0.00	0.70	1.14
Avail Cap(c_a), veh/h				757	0	662	339	1802	0	0	1039	485
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.4	0.0	31.0	50.9	36.0	0.0	0.0	44.6	49.4
Incr Delay (d2), s/veh				26.4	0.0	24.6	17.5	1.3	0.0	0.0	4.0	84.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				27.5	0.0	23.0	9.3	16.3	0.0	0.0	11.3	26.2
LnGrp Delay(d),s/veh				57.9	0.0	55.6	68.4	37.2	0.0	0.0	48.5	133.8
LnGrp LOS				E		E	E	D			D	F
Approach Vol, veh/h					1371			1384			1281	
Approach Delay, s/veh					56.8			43.1			85.3	
Approach LOS					E			D			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			22.3	37.7		50.0		60.0				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			21.0	31.0		46.0		56.0				
Max Q Clear Time (g_c+I1), s			18.1	35.7		46.0		34.4				
Green Ext Time (p_c), s			0.2	0.0		0.0		16.0				
Intersection Summary												
HCM 2010 Ctrl Delay			61.1									
HCM 2010 LOS			E									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			 	
Traffic Volume (veh/h)	589	2	601	0	0	0	0	546	228	298	627	0
Future Volume (veh/h)	589	2	601	0	0	0	0	546	228	298	627	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	627	2	639				0	581	243	317	667	0
Adj No. of Lanes	0	1	1				0	3	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	707	2	633				0	1041	425	350	1866	0
Arrive On Green	0.40	0.40	0.40				0.00	0.10	0.10	0.20	0.53	0.00
Sat Flow, veh/h	1769	6	1583				0	3717	1448	1774	3632	0
Grp Volume(v), veh/h	629	0	639				0	554	270	317	667	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1607	1774	1770	0
Q Serve(g_s), s	36.2	0.0	44.0				0.0	17.2	17.7	19.2	12.1	0.0
Cycle Q Clear(g_c), s	36.2	0.0	44.0				0.0	17.2	17.7	19.2	12.1	0.0
Prop In Lane	1.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	710	0	633				0	995	472	350	1866	0
V/C Ratio(X)	0.89	0.00	1.01				0.00	0.56	0.57	0.90	0.36	0.00
Avail Cap(c_a), veh/h	710	0	633				0	995	472	452	1866	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.83	0.83	0.45	0.45	0.00
Uniform Delay (d), s/veh	30.7	0.0	33.0				0.0	42.9	43.1	43.1	15.1	0.0
Incr Delay (d2), s/veh	13.0	0.0	38.0				0.0	1.9	4.2	9.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.2	0.0	25.9				0.0	8.3	8.4	10.4	5.9	0.0
LnGrp Delay(d),s/veh	43.6	0.0	71.0				0.0	44.7	47.2	52.7	15.4	0.0
LnGrp LOS	D		F					D	D	D	B	
Approach Vol, veh/h		1268						824			984	
Approach Delay, s/veh		57.4						45.6			27.4	
Approach LOS		E						D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		48.0		62.0			25.7	36.3				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		44.0		58.0			28.0	26.0				
Max Q Clear Time (g_c+I1), s		46.0		14.1			21.2	19.7				
Green Ext Time (p_c), s		0.0		12.5			0.5	4.3				
Intersection Summary												
HCM 2010 Ctrl Delay			44.6									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	456	43	41	130	103	21	524	31	377	770	104
Future Volume (veh/h)	112	456	43	41	130	103	21	524	31	377	770	104
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	123	501	47	45	143	113	23	576	34	414	846	114
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	614	57	58	262	193	33	1314	77	440	1932	260
Arrive On Green	0.09	0.19	0.19	0.03	0.13	0.13	0.02	0.39	0.39	0.50	1.00	1.00
Sat Flow, veh/h	1774	3272	306	1774	1945	1434	1774	3397	200	1774	3135	422
Grp Volume(v), veh/h	123	270	278	45	129	127	23	300	310	414	477	483
Grp Sat Flow(s),veh/h/ln	1774	1770	1809	1774	1770	1610	1774	1770	1827	1774	1770	1788
Q Serve(g_s), s	7.5	16.1	16.2	2.8	7.5	8.1	1.4	13.8	13.8	24.3	0.0	0.0
Cycle Q Clear(g_c), s	7.5	16.1	16.2	2.8	7.5	8.1	1.4	13.8	13.8	24.3	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.89	1.00		0.11	1.00		0.24
Lane Grp Cap(c), veh/h	151	332	339	58	238	217	33	684	707	440	1091	1102
V/C Ratio(X)	0.81	0.81	0.82	0.78	0.54	0.59	0.71	0.44	0.44	0.94	0.44	0.44
Avail Cap(c_a), veh/h	226	386	395	97	257	234	81	684	707	613	1091	1102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.80	0.80	0.77	0.77	0.77
Uniform Delay (d), s/veh	49.4	42.9	42.9	52.8	44.4	44.7	53.7	24.9	24.9	27.0	0.0	0.0
Incr Delay (d2), s/veh	12.9	11.1	11.3	20.1	1.9	3.2	20.0	1.6	1.6	15.6	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	8.9	9.2	1.7	3.8	3.8	0.9	7.1	7.3	13.6	0.3	0.3
LnGrp Delay(d),s/veh	62.3	54.0	54.2	72.9	46.4	47.9	73.7	26.5	26.5	42.6	1.0	1.0
LnGrp LOS	E	D	D	E	D	D	E	C	C	D	A	A
Approach Vol, veh/h		671			301			633			1374	
Approach Delay, s/veh		55.6			51.0			28.2			13.5	
Approach LOS		E			D			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+Rc), s	7.6	24.6	6.0	71.8	13.4	18.8	31.3	46.5				
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	24.0	5.0	59.0	14.0	16.0	38.0	26.0				
Max Q Clear Time (g_c+I1), s	4.8	18.2	3.4	2.0	9.5	10.1	26.3	15.8				
Green Ext Time (p_c), s	0.0	2.4	0.0	12.7	0.1	2.4	1.0	6.1				
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)	121	192	11	4	194	131	13	436	14	125	155	56
Future Volume (veh/h)	121	192	11	4	194	131	13	436	14	125	155	56
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	153	243	14	5	246	166	16	552	18	158	196	71
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	1018	58	9	412	268	28	1095	36	185	1033	362
Arrive On Green	0.10	0.30	0.30	0.01	0.20	0.20	0.02	0.31	0.31	0.10	0.40	0.40
Sat Flow, veh/h	1774	3403	195	1774	2058	1338	1774	3498	114	1774	2571	902
Grp Volume(v), veh/h	153	126	131	5	210	202	16	279	291	158	133	134
Grp Sat Flow(s),veh/h/ln	1774	1770	1828	1774	1770	1627	1774	1770	1843	1774	1770	1704
Q Serve(g_s), s	4.9	3.1	3.1	0.2	6.2	6.5	0.5	7.4	7.4	5.0	2.8	2.9
Cycle Q Clear(g_c), s	4.9	3.1	3.1	0.2	6.2	6.5	0.5	7.4	7.4	5.0	2.8	2.9
Prop In Lane	1.00		0.11	1.00		0.82	1.00		0.06	1.00		0.53
Lane Grp Cap(c), veh/h	185	529	547	9	354	325	28	554	577	185	711	684
V/C Ratio(X)	0.83	0.24	0.24	0.53	0.59	0.62	0.57	0.50	0.50	0.85	0.19	0.20
Avail Cap(c_a), veh/h	185	646	668	123	585	537	123	554	577	185	711	684
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	15.2	15.2	28.5	20.9	21.0	28.1	16.1	16.1	25.3	11.1	11.2
Incr Delay (d2), s/veh	25.4	0.2	0.2	38.8	1.6	1.9	17.3	3.2	3.1	30.0	0.6	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	3.7	1.5	1.6	0.2	3.2	3.1	0.4	4.1	4.2	4.0	1.5	1.5
LnGrp Delay(d),s/veh	50.7	15.4	15.4	67.3	22.5	22.9	45.4	19.4	19.2	55.3	11.7	11.8
LnGrp LOS	D	B	B	E	C	C	D	B	B	E	B	B
Approach Vol, veh/h		410			417			586			425	
Approach Delay, s/veh		28.6			23.2			20.0			28.0	
Approach LOS		C			C			C			C	
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	4.3	21.2	4.9	27.1	10.0	15.5	10.0	22.0				
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	4.0	21.0	4.0	20.0	6.0	19.0	6.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	5.1	2.5	4.9	6.9	8.5	7.0	9.4				
Green Ext Time (p_c), s	0.0	3.7	0.0	4.0	0.0	3.0	0.0	3.0				
Intersection Summary												
HCM 2010 Ctrl Delay				24.5								
HCM 2010 LOS				C								

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	826	98	81	555	123	88	439	107	115	290	101
Future Volume (veh/h)	126	826	98	81	555	123	88	439	107	115	290	101
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	152	995	118	98	669	148	106	529	129	139	349	122
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	1142	135	125	927	205	135	686	167	159	662	228
Arrive On Green	0.11	0.36	0.36	0.07	0.32	0.32	0.08	0.24	0.24	0.09	0.26	0.26
Sat Flow, veh/h	1774	3188	378	1774	2883	637	1774	2825	686	1774	2585	890
Grp Volume(v), veh/h	152	552	561	98	410	407	106	330	328	139	237	234
Grp Sat Flow(s),veh/h/ln	1774	1770	1796	1774	1770	1750	1774	1770	1742	1774	1770	1706
Q Serve(g_s), s	5.6	19.5	19.5	3.6	13.7	13.8	3.9	11.7	11.8	5.2	7.7	7.9
Cycle Q Clear(g_c), s	5.6	19.5	19.5	3.6	13.7	13.8	3.9	11.7	11.8	5.2	7.7	7.9
Prop In Lane	1.00		0.21	1.00		0.36	1.00		0.39	1.00		0.52
Lane Grp Cap(c), veh/h	191	634	644	125	569	563	135	430	423	159	453	437
V/C Ratio(X)	0.80	0.87	0.87	0.78	0.72	0.72	0.78	0.77	0.77	0.88	0.52	0.54
Avail Cap(c_a), veh/h	238	660	670	132	569	563	159	475	468	159	475	458
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	20.1	20.1	30.6	20.1	20.1	30.4	23.6	23.7	30.2	21.4	21.5
Incr Delay (d2), s/veh	13.9	11.8	11.7	24.5	4.5	4.5	19.3	6.8	7.2	38.2	0.9	1.1
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	3.5	11.6	11.8	2.6	7.3	7.3	2.6	6.5	6.5	4.2	3.9	3.8
LnGrp Delay(d),s/veh	43.1	31.9	31.8	55.2	24.6	24.7	49.7	30.5	30.9	68.3	22.4	22.6
LnGrp LOS	D	C	C	E	C	C	D	C	C	E	C	C
Approach Vol, veh/h	1265			915				764			610	
Approach Delay, s/veh	33.2			27.9				33.3			32.9	
Approach LOS	C			C				C			C	
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	8.7	28.0	9.1	21.2	11.2	25.6	10.0	20.3				
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	5.0	25.0	6.0	18.0	9.0	21.0	6.0	18.0				
Max Q Clear Time (g_c+I1), s	5.6	21.5	5.9	9.9	7.6	15.8	7.2	13.8				
Green Ext Time (p_c), s	0.0	2.5	0.0	4.2	0.0	4.2	0.0	2.5				
Intersection Summary												
HCM 2010 Ctrl Delay	31.8											
HCM 2010 LOS	C											

Existing + Ambient + Project Conditions - AM Peak Hour
11: Overland Street & Magnolia Avenue

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1000	164	101	665	38	13	14	4	33	105	63
Future Volume (veh/h)	37	1000	164	101	665	38	13	14	4	33	105	63
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	42	1124	184	113	747	43	15	16	4	37	118	71
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	532	2041	333	337	2279	131	191	175	34	112	176	95
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	683	3047	497	419	3402	196	521	984	194	180	990	536
Grp Volume(v), veh/h	42	651	657	113	388	402	35	0	0	226	0	0
Grp Sat Flow(s),veh/h/ln	683	1770	1775	419	1770	1828	1699	0	0	1706	0	0
Q Serve(g_s), s	1.5	10.1	10.2	10.2	4.9	4.9	0.0	0.0	0.0	3.3	0.0	0.0
Cycle Q Clear(g_c), s	6.3	10.1	10.2	20.3	4.9	4.9	0.8	0.0	0.0	6.5	0.0	0.0
Prop In Lane	1.00		0.28	1.00		0.11	0.43		0.11	0.16		0.31
Lane Grp Cap(c), veh/h	532	1185	1189	337	1185	1225	400	0	0	383	0	0
V/C Ratio(X)	0.08	0.55	0.55	0.34	0.33	0.33	0.09	0.00	0.00	0.59	0.00	0.00
Avail Cap(c_a), veh/h	582	1316	1320	368	1316	1360	644	0	0	661	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	5.0	4.5	4.5	9.9	3.7	3.7	18.1	0.0	0.0	20.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.6	0.2	0.2	0.1	0.0	0.0	1.5	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	0.3	4.8	5.1	1.2	2.4	2.5	0.4	0.0	0.0	3.2	0.0	0.0
LnGrp Delay(d),s/veh	5.1	4.9	4.9	10.4	3.8	3.8	18.2	0.0	0.0	21.8	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	B			C		
Approach Vol, veh/h	1350			903			35			226		
Approach Delay, s/veh	4.9			4.6			18.2			21.8		
Approach LOS	A			A			B			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	39.1			13.3			39.1			13.3		
Change Period (Y+Rc), s	4.0			4.0			4.0			4.0		
Max Green Setting (Gmax), s	39.0			18.0			39.0			18.0		
Max Q Clear Time (g_c+I1), s	12.2			8.5			22.3			2.8		
Green Ext Time (p_c), s	18.3			1.0			12.8			1.3		
Intersection Summary												
HCM 2010 Ctrl Delay	6.5											
HCM 2010 LOS	A											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	799	106	107	366	60	173	255	169	116	302	61
Future Volume (veh/h)	94	799	106	107	366	60	173	255	169	116	302	61
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	1038	138	139	475	78	225	331	219	151	392	79
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	153	1118	148	163	1089	178	244	530	451	186	379	76
Arrive On Green	0.09	0.35	0.35	0.09	0.35	0.35	0.13	0.28	0.28	0.10	0.25	0.25
Sat Flow, veh/h	1737	3204	426	1810	3108	508	1810	1900	1615	1810	1536	310
Grp Volume(v), veh/h	122	584	592	139	275	278	225	331	219	151	0	471
Grp Sat Flow(s),veh/h/ln	1737	1805	1825	1810	1805	1810	1810	1900	1615	1810	0	1845
Q Serve(g_s), s	6.1	27.8	27.8	6.7	10.4	10.5	10.9	13.5	10.1	7.3	0.0	22.0
Cycle Q Clear(g_c), s	6.1	27.8	27.8	6.7	10.4	10.5	10.9	13.5	10.1	7.3	0.0	22.0
Prop In Lane	1.00		0.23	1.00		0.28	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	153	630	636	163	633	635	244	530	451	186	0	456
V/C Ratio(X)	0.80	0.93	0.93	0.86	0.43	0.44	0.92	0.62	0.49	0.81	0.00	1.03
Avail Cap(c_a), veh/h	254	649	656	163	633	635	244	530	451	244	0	456
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.8	27.9	27.9	40.0	22.2	22.2	38.1	28.0	26.8	39.1	0.0	33.5
Incr Delay (d2), s/veh	9.1	19.5	19.6	33.4	0.5	0.5	37.4	2.3	0.8	14.5	0.0	51.0
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	3.3	17.2	17.4	4.9	5.3	5.3	8.0	7.4	4.6	4.4	0.0	17.6
LnGrp Delay(d),s/veh	49.0	47.4	47.5	73.4	22.6	22.7	75.4	30.3	27.6	53.6	0.0	84.5
LnGrp LOS	D	D	D	E	C	C	E	C	C	D		F
Approach Vol, veh/h		1298			692			775			622	
Approach Delay, s/veh		47.6			32.8			42.6			77.0	
Approach LOS		D			C			D			E	
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	12.0	35.1	16.0	26.0	11.8	35.2	13.1	28.9				
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	8.0	32.0	12.0	22.0	13.0	27.0	12.0	22.0				
Max Q Clear Time (g_c+I1), s	8.7	29.8	12.9	24.0	8.1	12.5	9.3	15.5				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.1	8.9	0.1	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay			48.8									
HCM 2010 LOS			D									

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑		↑	↑↑	↑	↑		
Traffic Volume (veh/h)	778	181	91	593	35	17		
Future Volume (veh/h)	778	181	91	593	35	17		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	864	201	101	659	39	19		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1650	384	130	2661	84	75		
Arrive On Green	0.58	0.58	0.07	0.75	0.05	0.05		
Sat Flow, veh/h	2945	663	1774	3632	1774	1583		
Grp Volume(v), veh/h	536	529	101	659	39	19		
Grp Sat Flow(s),veh/h/ln	1770	1746	1774	1770	1774	1583		
Q Serve(g_s), s	7.3	7.3	2.2	2.3	0.9	0.5		
Cycle Q Clear(g_c), s	7.3	7.3	2.2	2.3	0.9	0.5		
Prop In Lane		0.38	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1024	1010	130	2661	84	75		
V/C Ratio(X)	0.52	0.52	0.78	0.25	0.46	0.25		
Avail Cap(c_a), veh/h	1730	1706	489	4790	800	714		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	5.1	5.1	18.2	1.5	18.5	18.3		
Incr Delay (d2), s/veh	0.4	0.4	9.5	0.0	3.9	1.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.5	3.5	1.4	1.0	0.5	0.2		
LnGrp Delay(d),s/veh	5.5	5.5	27.7	1.6	22.4	20.1		
LnGrp LOS	A	A	C	A	C	C		
Approach Vol, veh/h	1065			760	58			
Approach Delay, s/veh	5.5			5.0	21.6			
Approach LOS	A			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.9	27.1				34.0		5.9
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	11.0	39.0				54.0		18.0
Max Q Clear Time (g_c+I1), s	4.2	9.3				4.3		2.9
Green Ext Time (p_c), s	0.1	13.8				16.5		0.1
Intersection Summary								
HCM 2010 Ctrl Delay			5.8					
HCM 2010 LOS			A					

Existing + Ambient + Project Conditions - AM Peak Hour
14: Jefferson Street & Magnolia Avenue

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	874	81	69	575	117	108	147	70	113	150	107
Future Volume (veh/h)	71	874	81	69	575	117	108	147	70	113	150	107
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	89	1092	101	86	719	146	135	184	88	141	188	134
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	1240	115	108	1099	223	161	271	130	161	230	164
Arrive On Green	0.06	0.38	0.38	0.06	0.37	0.37	0.09	0.23	0.23	0.09	0.23	0.23
Sat Flow, veh/h	1774	3276	303	1774	2932	595	1774	1192	570	1774	1013	722
Grp Volume(v), veh/h	89	589	604	86	434	431	135	0	272	141	0	322
Grp Sat Flow(s),veh/h/ln	1774	1770	1809	1774	1770	1758	1774	0	1762	1774	0	1735
Q Serve(g_s), s	3.3	20.5	20.5	3.2	13.4	13.4	4.9	0.0	9.3	5.2	0.0	11.6
Cycle Q Clear(g_c), s	3.3	20.5	20.5	3.2	13.4	13.4	4.9	0.0	9.3	5.2	0.0	11.6
Prop In Lane	1.00		0.17	1.00		0.34	1.00		0.32	1.00		0.42
Lane Grp Cap(c), veh/h	114	670	685	108	663	659	161	0	401	161	0	395
V/C Ratio(X)	0.78	0.88	0.88	0.80	0.65	0.65	0.84	0.00	0.68	0.87	0.00	0.82
Avail Cap(c_a), veh/h	161	697	713	108	663	659	161	0	481	161	0	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.4	19.1	19.1	30.6	17.1	17.1	29.5	0.0	23.3	29.6	0.0	24.2
Incr Delay (d2), s/veh	14.6	12.2	12.1	33.5	2.3	2.3	30.2	0.0	3.0	37.5	0.0	9.1
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	2.1	12.3	12.5	2.6	6.9	6.9	3.8	0.0	4.9	4.2	0.0	6.5
LnGrp Delay(d),s/veh	45.0	31.3	31.2	64.1	19.4	19.4	59.7	0.0	26.3	67.1	0.0	33.3
LnGrp LOS	D	C	C	E	B	B	E		C	E		C
Approach Vol, veh/h	1282			951				407			463	
Approach Delay, s/veh	32.2			23.4				37.4			43.6	
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	8.0	29.0	10.0	19.0	8.2	28.7	10.0	19.0				
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	4.0	26.0	6.0	18.0	6.0	24.0	6.0	18.0				
Max Q Clear Time (g_c+I1), s	5.2	22.5	6.9	13.6	5.3	15.4	7.2	11.3				
Green Ext Time (p_c), s	0.0	2.5	0.0	1.4	0.0	6.7	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay	31.9											
HCM 2010 LOS	C											

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	1	1	1	561	484	1
Future Vol, veh/h	1	1	1	561	484	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	1	693	598	1

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1293	598	599 0
Stage 1	598	-	- -
Stage 2	695	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	180	502	978 -
Stage 1	549	-	- -
Stage 2	495	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	180	502	978 -
Mov Cap-2 Maneuver	180	-	- -
Stage 1	549	-	- -
Stage 2	494	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	18.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	978	-	265	-	-
HCM Lane V/C Ratio	0.001	-	0.009	-	-
HCM Control Delay (s)	8.7	0	18.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Existing + Ambient + Project Conditions(Mitigated) - AM Peak Hour
2: Adams Street & Magnolia Avenue

10/20/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	646	200	155	450	263	404	648	280	261	756	98
Future Volume (veh/h)	98	646	200	155	450	263	404	648	280	261	756	98
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1886	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	111	734	227	176	511	299	459	736	318	297	859	111
Adj No. of Lanes	1	2	1	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	138	878	645	212	609	355	548	944	448	334	942	122
Arrive On Green	0.08	0.24	0.24	0.12	0.28	0.28	0.16	0.27	0.27	0.19	0.30	0.30
Sat Flow, veh/h	1703	3610	1615	1810	2181	1273	3510	3539	1680	1774	3153	407
Grp Volume(v), veh/h	111	734	227	176	420	390	459	736	318	297	482	488
Grp Sat Flow(s),veh/h/ln	1703	1805	1615	1810	1792	1662	1755	1770	1680	1774	1770	1791
Q Serve(g_s), s	5.5	16.7	8.5	8.2	19.1	19.1	11.0	16.6	14.8	14.1	22.7	22.7
Cycle Q Clear(g_c), s	5.5	16.7	8.5	8.2	19.1	19.1	11.0	16.6	14.8	14.1	22.7	22.7
Prop In Lane	1.00		1.00	1.00		0.77	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	138	878	645	212	500	464	548	944	448	334	529	535
V/C Ratio(X)	0.80	0.84	0.35	0.83	0.84	0.84	0.84	0.78	0.71	0.89	0.91	0.91
Avail Cap(c_a), veh/h	138	878	645	230	518	480	650	983	466	369	532	539
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	31.1	18.2	37.3	29.3	29.4	35.4	29.4	28.7	34.2	29.2	29.2
Incr Delay (d2), s/veh	28.3	7.1	0.3	20.8	11.4	12.4	8.2	3.9	4.8	21.1	20.0	19.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	9.1	3.8	5.3	11.0	10.4	5.9	8.6	7.4	8.9	14.1	14.2
LnGrp Delay(d),s/veh	67.3	38.2	18.5	58.1	40.7	41.8	43.6	33.3	33.4	55.3	49.2	49.0
LnGrp LOS	E	D	B	E	D	D	D	C	C	E	D	D
Approach Vol, veh/h		1072			986			1513			1267	
Approach Delay, s/veh		37.0			44.3			36.5			50.6	
Approach LOS		D			D			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	14.1	25.0	17.5	29.8	11.0	28.1	20.3	27.1				
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	11.0	21.0	16.0	26.0	7.0	25.0	18.0	24.0				
Max Q Clear Time (g_c+I1), s	10.2	18.7	13.0	24.7	7.5	21.1	16.1	18.6				
Green Ext Time (p_c), s	0.0	1.9	0.5	1.1	0.0	3.0	0.2	4.2				
Intersection Summary												
HCM 2010 Ctrl Delay			41.9									
HCM 2010 LOS			D									

Existing + Ambient + Project Conditions - PM Peak Hour
1: Adams Street & Garfield Street

Synchro 9 Report
4/8/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	11	40	32	4	19	44	791	41	20	608	19
Future Volume (veh/h)	27	11	40	32	4	19	44	791	41	20	608	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	28	11	41	33	4	19	45	807	42	20	620	19
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	19	72	253	10	48	72	1836	96	36	1809	55
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.04	0.54	0.54	0.02	0.52	0.52
Sat Flow, veh/h	573	225	839	964	117	555	1774	3423	178	1774	3506	107
Grp Volume(v), veh/h	80	0	0	56	0	0	45	417	432	20	313	326
Grp Sat Flow(s),veh/h/ln	1637	0	0	1635	0	0	1774	1770	1831	1774	1770	1844
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.0	0.8	4.8	4.8	0.4	3.5	3.5
Cycle Q Clear(g_c), s	1.5	0.0	0.0	1.0	0.0	0.0	0.8	4.8	4.8	0.4	3.5	3.5
Prop In Lane	0.35		0.51	0.59		0.34	1.00		0.10	1.00		0.06
Lane Grp Cap(c), veh/h	285	0	0	311	0	0	72	949	982	36	913	951
V/C Ratio(X)	0.28	0.00	0.00	0.18	0.00	0.00	0.62	0.44	0.44	0.56	0.34	0.34
Avail Cap(c_a), veh/h	886	0	0	877	0	0	264	949	982	211	913	951
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	0.0	0.0	14.5	0.0	0.0	15.8	4.7	4.7	16.3	4.8	4.8
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.3	0.0	0.0	8.4	1.5	1.4	12.7	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.5	0.0	0.0	0.6	2.7	2.8	0.3	1.9	2.0
LnGrp Delay(d),s/veh	15.2	0.0	0.0	14.7	0.0	0.0	24.2	6.2	6.1	29.0	5.8	5.8
LnGrp LOS	B			B			C	A	A	C	A	A
Approach Vol, veh/h		80			56			894			659	
Approach Delay, s/veh		15.2			14.7			7.1			6.5	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		6.9	5.4	21.3		6.9	4.7	22.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		16.0	5.0	17.0		16.0	4.0	18.0				
Max Q Clear Time (g_c+I1), s		3.5	2.8	5.5		3.0	2.4	6.8				
Green Ext Time (p_c), s		0.5	0.0	6.3		0.5	0.0	6.2				
Intersection Summary												
HCM 2010 Ctrl Delay			7.5									
HCM 2010 LOS			A									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	971	415	178	976	146	495	498	191	190	427	108
Future Volume (veh/h)	151	971	415	178	976	146	495	498	191	190	427	108
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1895	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	154	991	423	182	996	149	505	508	195	194	436	110
Adj No. of Lanes	1	2	0	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	175	906	381	165	1113	166	586	817	388	230	542	136
Arrive On Green	0.10	0.37	0.37	0.09	0.35	0.35	0.17	0.23	0.23	0.13	0.19	0.19
Sat Flow, veh/h	1703	2478	1043	1810	3143	470	3510	3539	1680	1774	2806	702
Grp Volume(v), veh/h	154	718	696	182	570	575	505	508	195	194	274	272
Grp Sat Flow(s),veh/h/ln	1703	1805	1716	1810	1800	1812	1755	1770	1680	1774	1770	1739
Q Serve(g_s), s	7.8	32.0	32.0	8.0	26.2	26.3	12.3	11.3	8.8	9.4	12.9	13.1
Cycle Q Clear(g_c), s	7.8	32.0	32.0	8.0	26.2	26.3	12.3	11.3	8.8	9.4	12.9	13.1
Prop In Lane	1.00		0.61	1.00		0.26	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	175	660	627	165	638	642	586	817	388	230	342	336
V/C Ratio(X)	0.88	1.09	1.11	1.10	0.89	0.90	0.86	0.62	0.50	0.84	0.80	0.81
Avail Cap(c_a), veh/h	175	660	627	165	638	642	642	849	403	263	364	358
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	27.8	27.8	39.8	26.7	26.7	35.5	30.2	29.3	37.2	33.7	33.8
Incr Delay (d2), s/veh	36.4	61.3	69.9	99.4	15.1	15.2	10.8	1.3	1.0	19.5	11.4	12.5
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	5.4	27.0	27.2	8.5	15.7	15.8	6.8	5.7	4.2	5.8	7.4	7.4
LnGrp Delay(d),s/veh	75.1	89.1	97.7	139.2	41.9	41.9	46.3	31.6	30.3	56.7	45.1	46.3
LnGrp LOS	E	F	F	F	D	D	D	C	C	E	D	D
Approach Vol, veh/h		1568			1327			1208			740	
Approach Delay, s/veh		91.5			55.2			37.5			48.6	
Approach LOS		F			E			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	12.0	36.0	18.6	20.9	13.0	35.0	15.3	24.2				
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	8.0	32.0	16.0	18.0	9.0	31.0	13.0	21.0				
Max Q Clear Time (g_c+I1), s	10.0	34.0	14.3	15.1	9.8	28.3	11.4	13.3				
Green Ext Time (p_c), s	0.0	0.0	0.4	1.8	0.0	2.6	0.1	4.0				
Intersection Summary												
HCM 2010 Ctrl Delay			61.6									
HCM 2010 LOS			E									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	8	404	29	2	15	388	1036	17	9	919	65
Future Volume (veh/h)	67	8	404	29	2	15	388	1036	17	9	919	65
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1937	1900	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	72	9	434	31	2	16	417	1114	18	10	988	70
Adj No. of Lanes	1	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	6	291	59	14	7	444	2461	40	17	1509	107
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.50	1.00	1.00	0.01	0.45	0.45
Sat Flow, veh/h	1389	34	1618	0	80	39	1774	3565	58	1774	3353	238
Grp Volume(v), veh/h	72	0	443	49	0	0	417	553	579	10	521	537
Grp Sat Flow(s),veh/h/ln	1389	0	1652	118	0	0	1774	1770	1853	1774	1770	1821
Q Serve(g_s), s	0.0	0.0	18.0	0.0	0.0	0.0	22.2	0.0	0.0	0.6	23.0	23.0
Cycle Q Clear(g_c), s	5.3	0.0	18.0	18.0	0.0	0.0	22.2	0.0	0.0	0.6	23.0	23.0
Prop In Lane	1.00		0.98	0.63		0.33	1.00		0.03	1.00		0.13
Lane Grp Cap(c), veh/h	286	0	297	80	0	0	444	1222	1279	17	796	819
V/C Ratio(X)	0.25	0.00	1.49	0.61	0.00	0.00	0.94	0.45	0.45	0.58	0.65	0.65
Avail Cap(c_a), veh/h	286	0	297	80	0	0	568	1222	1279	284	796	819
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.30	0.30	0.30
Uniform Delay (d), s/veh	35.8	0.0	41.0	42.4	0.0	0.0	24.3	0.0	0.0	49.3	21.4	21.4
Incr Delay (d2), s/veh	0.5	0.0	237.6	12.9	0.0	0.0	20.9	1.2	1.2	9.0	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	27.8	1.6	0.0	0.0	13.2	0.4	0.4	0.3	11.4	11.8
LnGrp Delay(d),s/veh	36.3	0.0	278.6	55.4	0.0	0.0	45.2	1.2	1.2	58.3	22.7	22.7
LnGrp LOS	D		F	E			D	A	A	E	C	C
Approach Vol, veh/h		515			49			1549			1068	
Approach Delay, s/veh		244.7			55.4			13.0			23.0	
Approach LOS		F			E			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.0	29.0	49.0		22.0	5.0	73.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	32.0	38.0		18.0	16.0	54.0				
Max Q Clear Time (g_c+I1), s		20.0	24.2	25.0		20.0	2.6	2.0				
Green Ext Time (p_c), s		0.0	0.8	9.6		0.0	0.0	22.2				
Intersection Summary												
HCM 2010 Ctrl Delay			54.6									
HCM 2010 LOS			D									

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	10	1373	43	0	1304
Future Vol, veh/h	0	10	1373	43	0	1304
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	12	1654	52	0	1571

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2308	853	0
Stage 1	1680	-	-
Stage 2	628	-	-
Critical Hdwy	6.25	6.9	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	6	-	-
Follow-up Hdwy	3.65	3.3	2.2
Pot Cap-1 Maneuver	46	307	378
Stage 1	137	-	-
Stage 2	468	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	46	307	378
Mov Cap-2 Maneuver	46	-	-
Stage 1	137	-	-
Stage 2	468	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 307	378	-
HCM Lane V/C Ratio	-	- 0.039	-	-
HCM Control Delay (s)	-	- 17.2	0	-
HCM Lane LOS	-	- C	A	-
HCM 95th %tile Q(veh)	-	- 0.1	0	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	224	0	513	356	838	0	0	796	576
Future Volume (veh/h)	0	0	0	224	0	513	356	838	0	0	796	576
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				231	224	380	367	864	0	0	821	594
Adj No. of Lanes				0	1	1	1	2	0	0	3	0
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				247	239	423	393	2310	0	0	1325	619
Arrive On Green				0.27	0.27	0.27	0.44	1.00	0.00	0.00	0.13	0.13
Sat Flow, veh/h				922	894	1583	1774	3632	0	0	3558	1583
Grp Volume(v), veh/h				455	0	380	367	864	0	0	821	594
Grp Sat Flow(s),veh/h/ln				1817	0	1583	1774	1770	0	0	1695	1583
Q Serve(g_s), s				24.5	0.0	23.1	19.6	0.0	0.0	0.0	22.9	37.3
Cycle Q Clear(g_c), s				24.5	0.0	23.1	19.6	0.0	0.0	0.0	22.9	37.3
Prop In Lane				0.51		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				486	0	423	393	2310	0	0	1325	619
V/C Ratio(X)				0.94	0.00	0.90	0.93	0.37	0.00	0.00	0.62	0.96
Avail Cap(c_a), veh/h				490	0	427	479	2310	0	0	1325	619
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.23	0.23	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				35.8	0.0	35.3	27.1	0.0	0.0	0.0	36.5	42.8
Incr Delay (d2), s/veh				25.7	0.0	21.1	7.4	0.1	0.0	0.0	2.2	27.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				15.7	0.0	12.6	10.2	0.0	0.0	0.0	11.2	21.1
LnGrp Delay(d),s/veh				61.5	0.0	56.5	34.5	0.1	0.0	0.0	38.7	70.3
LnGrp LOS				E		E	C	A			D	E
Approach Vol, veh/h					835			1231			1415	
Approach Delay, s/veh					59.2			10.4			52.0	
Approach LOS					E			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			26.2	43.1		30.7		69.3				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			27.0	34.0		27.0		65.0				
Max Q Clear Time (g_c+I1), s			21.6	39.3		26.5		2.0				
Green Ext Time (p_c), s			0.5	0.0		0.2		28.3				
Intersection Summary												
HCM 2010 Ctrl Delay			39.0									
HCM 2010 LOS			D									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			 	
Traffic Volume (veh/h)	742	10	709	0	0	0	0	459	376	565	458	0
Future Volume (veh/h)	742	10	709	0	0	0	0	459	376	565	458	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	798	11	762				0	494	404	608	492	0
Adj No. of Lanes	0	1	1				0	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	700	10	633				0	576	269	550	1840	0
Arrive On Green	0.40	0.40	0.40				0.00	0.06	0.06	0.10	0.17	0.00
Sat Flow, veh/h	1751	24	1583				0	3558	1583	1774	3632	0
Grp Volume(v), veh/h	809	0	762				0	494	404	608	492	0
Grp Sat Flow(s),veh/h/ln	1775	0	1583				0	1695	1583	1774	1770	0
Q Serve(g_s), s	40.0	0.0	40.0				0.0	14.4	17.0	31.0	12.1	0.0
Cycle Q Clear(g_c), s	40.0	0.0	40.0				0.0	14.4	17.0	31.0	12.1	0.0
Prop In Lane	0.99		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	710	0	633				0	576	269	550	1840	0
V/C Ratio(X)	1.14	0.00	1.20				0.00	0.86	1.50	1.11	0.27	0.00
Avail Cap(c_a), veh/h	710	0	633				0	576	269	550	1840	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.76	0.76	0.61	0.61	0.00
Uniform Delay (d), s/veh	30.0	0.0	30.0				0.0	46.0	47.2	44.9	24.9	0.0
Incr Delay (d2), s/veh	79.1	0.0	105.9				0.0	12.1	239.8	63.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	35.1	0.0	36.1				0.0	7.8	25.4	24.9	6.0	0.0
LnGrp Delay(d),s/veh	109.1	0.0	135.9				0.0	58.1	287.0	108.0	25.1	0.0
LnGrp LOS	F		F					E	F	F	C	
Approach Vol, veh/h		1571						898			1100	
Approach Delay, s/veh		122.1						161.1			70.9	
Approach LOS		F						F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		44.0		56.0			35.0	21.0				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		40.0		52.0			31.0	17.0				
Max Q Clear Time (g_c+l1), s		42.0		14.1			33.0	19.0				
Green Ext Time (p_c), s		0.0		11.1			0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			116.1									
HCM 2010 LOS			F									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	350	57	36	220	200	40	490	50	285	695	149
Future Volume (veh/h)	184	350	57	36	220	200	40	490	50	285	695	149
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	211	402	66	41	253	230	46	563	57	328	799	171
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	820	134	52	286	251	59	1107	112	356	1476	316
Arrive On Green	0.14	0.27	0.27	0.03	0.16	0.16	0.03	0.34	0.34	0.40	1.00	1.00
Sat Flow, veh/h	1774	3048	497	1774	1790	1566	1774	3247	328	1774	2902	621
Grp Volume(v), veh/h	211	232	236	41	250	233	46	306	314	328	487	483
Grp Sat Flow(s),veh/h/ln	1774	1770	1775	1774	1770	1586	1774	1770	1805	1774	1770	1753
Q Serve(g_s), s	11.6	11.0	11.2	2.3	13.8	14.5	2.6	13.8	13.9	17.6	0.0	0.0
Cycle Q Clear(g_c), s	11.6	11.0	11.2	2.3	13.8	14.5	2.6	13.8	13.9	17.6	0.0	0.0
Prop In Lane	1.00		0.28	1.00		0.99	1.00		0.18	1.00		0.35
Lane Grp Cap(c), veh/h	245	476	477	52	283	254	59	603	615	356	900	892
V/C Ratio(X)	0.86	0.49	0.49	0.79	0.88	0.92	0.78	0.51	0.51	0.92	0.54	0.54
Avail Cap(c_a), veh/h	319	495	497	106	283	254	106	603	615	461	900	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.69	0.69	0.69
Uniform Delay (d), s/veh	42.1	30.8	30.8	48.2	41.1	41.4	48.0	26.3	26.3	29.2	0.0	0.0
Incr Delay (d2), s/veh	16.7	0.8	0.8	22.7	26.2	35.3	19.7	3.0	2.9	15.5	1.6	1.6
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	6.8	5.5	5.6	1.5	8.8	8.8	1.6	7.2	7.4	9.9	0.4	0.4
LnGrp Delay(d),s/veh	58.9	31.5	31.6	70.9	67.3	76.6	67.7	29.2	29.2	44.7	1.6	1.6
LnGrp LOS	E	C	C	E	E	E	E	C	C	D	A	A
Approach Vol, veh/h		679			524			666			1298	
Approach Delay, s/veh		40.1			71.7			31.9			12.5	
Approach LOS		D			E			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+Rc), s	6.9	30.9	7.3	54.9	17.8	20.0	24.1	38.1				
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	28.0	6.0	44.0	18.0	16.0	26.0	24.0				
Max Q Clear Time (g_c+I1), s	4.3	13.2	4.6	2.0	13.6	16.5	19.6	15.9				
Green Ext Time (p_c), s	0.0	5.2	0.0	12.5	0.2	0.0	0.5	5.2				
Intersection Summary												
HCM 2010 Ctrl Delay			32.3									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	146	14	12	277	77	4	165	8	130	345	101
Future Volume (veh/h)	56	146	14	12	277	77	4	165	8	130	345	101
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	68	178	17	15	338	94	5	201	10	159	421	123
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	764	72	27	551	151	10	1132	56	205	1192	345
Arrive On Green	0.05	0.23	0.23	0.01	0.20	0.20	0.01	0.33	0.33	0.12	0.44	0.44
Sat Flow, veh/h	1774	3269	309	1774	2747	753	1774	3432	170	1774	2710	784
Grp Volume(v), veh/h	68	96	99	15	216	216	5	103	108	159	274	270
Grp Sat Flow(s),veh/h/ln	1774	1770	1808	1774	1770	1730	1774	1770	1833	1774	1770	1724
Q Serve(g_s), s	2.0	2.3	2.3	0.4	5.8	6.0	0.1	2.2	2.2	4.6	5.4	5.4
Cycle Q Clear(g_c), s	2.0	2.3	2.3	0.4	5.8	6.0	0.1	2.2	2.2	4.6	5.4	5.4
Prop In Lane	1.00		0.17	1.00		0.44	1.00		0.09	1.00		0.45
Lane Grp Cap(c), veh/h	85	414	423	27	355	347	10	584	605	205	778	759
V/C Ratio(X)	0.80	0.23	0.24	0.56	0.61	0.62	0.53	0.18	0.18	0.78	0.35	0.36
Avail Cap(c_a), veh/h	170	609	623	136	575	562	136	584	605	373	778	759
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	16.2	16.2	25.6	19.0	19.1	25.9	12.5	12.5	22.5	9.7	9.7
Incr Delay (d2), s/veh	15.5	0.3	0.3	17.4	1.7	1.8	38.5	0.7	0.6	6.2	1.2	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	1.3	1.1	1.2	0.3	3.0	3.0	0.2	1.2	1.2	2.6	2.9	2.8
LnGrp Delay(d),s/veh	40.1	16.5	16.5	43.0	20.7	20.9	64.4	13.1	13.1	28.7	10.9	11.0
LnGrp LOS	D	B	B	D	C	C	E	B	B	C	B	B
Approach Vol, veh/h		263			447			216			703	
Approach Delay, s/veh		22.6			21.6			14.3			15.0	
Approach LOS		C			C			B			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	4.8	16.2	4.3	27.0	6.5	14.5	10.0	21.2				
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	4.0	18.0	4.0	23.0	5.0	17.0	11.0	16.0				
Max Q Clear Time (g_c+I1), s	2.4	4.3	2.1	7.4	4.0	8.0	6.6	4.2				
Green Ext Time (p_c), s	0.0	3.2	0.0	3.7	0.0	2.5	0.1	3.2				
Intersection Summary												
HCM 2010 Ctrl Delay				17.9								
HCM 2010 LOS				B								

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	1302	104	73	1041	72	84	304	36	95	350	204
Future Volume (veh/h)	135	1302	104	73	1041	72	84	304	36	95	350	204
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	148	1431	114	80	1144	79	92	334	40	104	385	224
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	1406	111	102	1272	88	118	678	81	129	476	273
Arrive On Green	0.10	0.42	0.42	0.06	0.38	0.38	0.07	0.21	0.21	0.07	0.22	0.22
Sat Flow, veh/h	1774	3322	263	1774	3360	232	1774	3187	379	1774	2168	1245
Grp Volume(v), veh/h	148	759	786	80	602	621	92	184	190	104	313	296
Grp Sat Flow(s),veh/h/ln	1774	1770	1816	1774	1770	1822	1774	1770	1796	1774	1770	1643
Q Serve(g_s), s	5.6	29.0	29.0	3.1	22.0	22.0	3.5	6.3	6.4	4.0	11.5	11.7
Cycle Q Clear(g_c), s	5.6	29.0	29.0	3.1	22.0	22.0	3.5	6.3	6.4	4.0	11.5	11.7
Prop In Lane	1.00		0.15	1.00		0.13	1.00		0.21	1.00		0.76
Lane Grp Cap(c), veh/h	181	749	768	102	670	690	118	377	382	129	388	361
V/C Ratio(X)	0.82	1.01	1.02	0.78	0.90	0.90	0.78	0.49	0.50	0.80	0.81	0.82
Avail Cap(c_a), veh/h	181	749	768	104	671	691	129	413	419	129	413	384
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	19.8	19.8	31.9	20.1	20.1	31.5	23.7	23.7	31.3	25.4	25.5
Incr Delay (d2), s/veh	24.4	36.4	38.3	31.0	15.0	14.9	24.1	1.0	1.0	29.5	10.7	12.6
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	4.0	21.5	22.5	2.4	13.5	13.9	2.5	3.2	3.3	3.0	6.7	6.6
LnGrp Delay(d),s/veh	54.5	56.2	58.1	62.9	35.1	34.9	55.6	24.7	24.7	60.8	36.0	38.1
LnGrp LOS	D	F	F	E	D	C	E	C	C	E	D	D
Approach Vol, veh/h		1693			1303			466			713	
Approach Delay, s/veh		56.9			36.7			30.8			40.5	
Approach LOS		E			D			C			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	7.9	33.0	8.5	19.0	11.0	29.9	9.0	18.6				
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	4.0	29.0	5.0	16.0	7.0	26.0	5.0	16.0				
Max Q Clear Time (g_c+I1), s	5.1	31.0	5.5	13.7	7.6	24.0	6.0	8.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	1.9	0.0	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			44.9									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1438	32	16	1190	12	16	9	8	3	10	20
Future Volume (veh/h)	35	1438	32	16	1190	12	16	9	8	3	10	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	36	1498	33	17	1240	12	17	9	8	3	10	21
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	447	2732	60	364	2771	27	161	22	19	94	26	54
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	442	3541	78	338	3591	35	814	431	383	147	506	1056
Grp Volume(v), veh/h	36	748	783	17	611	641	34	0	0	34	0	0
Grp Sat Flow(s),veh/h/ln	442	1770	1849	338	1770	1857	1629	0	0	1709	0	0
Q Serve(g_s), s	1.4	7.5	7.6	0.9	5.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.8	7.5	7.6	8.5	5.4	5.4	0.8	0.0	0.0	0.8	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.02	0.50		0.24	0.09		0.62
Lane Grp Cap(c), veh/h	447	1365	1427	364	1365	1433	203	0	0	174	0	0
V/C Ratio(X)	0.08	0.55	0.55	0.05	0.45	0.45	0.17	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	509	1610	1682	411	1610	1689	667	0	0	671	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	3.0	2.0	2.0	3.7	1.8	1.8	20.7	0.0	0.0	20.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.3	0.1	0.2	0.2	0.4	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	0.2	3.7	3.8	0.1	2.6	2.8	0.4	0.0	0.0	0.4	0.0	0.0
LnGrp Delay(d),s/veh	3.1	2.4	2.4	3.8	2.0	2.0	21.1	0.0	0.0	21.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C			C		
Approach Vol, veh/h	1567				1269		34				34	
Approach Delay, s/veh	2.4				2.0		21.1				21.2	
Approach LOS	A				A		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	38.8		6.3		38.8		6.3					
Change Period (Y+Rc), s	4.0		4.0		4.0		4.0					
Max Green Setting (Gmax), s	41.0		16.0		41.0		16.0					
Max Q Clear Time (g_c+I1), s	9.6		2.8		10.5		2.8					
Green Ext Time (p_c), s	24.9		0.2		24.3		0.2					
Intersection Summary												
HCM 2010 Ctrl Delay			2.7									
HCM 2010 LOS			A									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1227	79	163	966	84	86	306	111	82	340	63
Future Volume (veh/h)	81	1227	79	163	966	84	86	306	111	82	340	63
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	1394	90	185	1098	95	98	348	126	93	386	72
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	117	1450	93	202	1564	135	101	425	362	119	364	68
Arrive On Green	0.07	0.42	0.42	0.11	0.46	0.46	0.06	0.22	0.22	0.07	0.23	0.23
Sat Flow, veh/h	1737	3444	222	1810	3363	291	1810	1900	1615	1810	1558	291
Grp Volume(v), veh/h	92	729	755	185	589	604	98	348	126	93	0	458
Grp Sat Flow(s),veh/h/ln	1737	1805	1861	1810	1805	1849	1810	1900	1615	1810	0	1849
Q Serve(g_s), s	4.7	35.2	35.5	9.1	23.3	23.3	4.9	15.6	5.9	4.5	0.0	21.0
Cycle Q Clear(g_c), s	4.7	35.2	35.5	9.1	23.3	23.3	4.9	15.6	5.9	4.5	0.0	21.0
Prop In Lane	1.00		0.12	1.00		0.16	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	117	760	783	202	839	860	101	425	362	119	0	432
V/C Ratio(X)	0.79	0.96	0.96	0.92	0.70	0.70	0.97	0.82	0.35	0.78	0.00	1.06
Avail Cap(c_a), veh/h	174	764	788	202	839	860	101	425	362	121	0	432
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.2	25.2	25.3	39.5	19.1	19.1	42.3	33.1	29.3	41.3	0.0	34.4
Incr Delay (d2), s/veh	13.0	22.9	23.6	41.2	2.6	2.6	80.5	11.9	0.6	27.1	0.0	59.8
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	2.7	22.2	23.2	6.8	12.1	12.4	4.6	9.6	2.7	3.2	0.0	17.8
LnGrp Delay(d),s/veh	54.3	48.2	49.0	80.7	21.7	21.7	122.9	45.0	29.9	68.4	0.0	94.2
LnGrp LOS	D	D	D	F	C	C	F	D	C	E		F
Approach Vol, veh/h		1576			1378			572			551	
Approach Delay, s/veh		48.9			29.6			55.0			89.9	
Approach LOS		D			C			E			F	
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	14.0	41.8	9.0	25.0	10.0	45.7	9.9	24.1				
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	10.0	38.0	5.0	21.0	9.0	39.0	6.0	20.0				
Max Q Clear Time (g_c+I1), s	11.1	37.5	6.9	23.0	6.7	25.3	6.5	17.6				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	11.7	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			48.8									
HCM 2010 LOS			D									

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑		↑	↑↑	↑	↑		
Traffic Volume (veh/h)	1219	129	65	1236	135	67		
Future Volume (veh/h)	1219	129	65	1236	135	67		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1297	137	69	1315	144	71		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2051	216	88	2658	205	183		
Arrive On Green	0.63	0.63	0.05	0.75	0.12	0.12		
Sat Flow, veh/h	3325	340	1774	3632	1774	1583		
Grp Volume(v), veh/h	708	726	69	1315	144	71		
Grp Sat Flow(s),veh/h/ln	1770	1803	1774	1770	1774	1583		
Q Serve(g_s), s	14.6	14.7	2.3	8.8	4.7	2.5		
Cycle Q Clear(g_c), s	14.6	14.7	2.3	8.8	4.7	2.5		
Prop In Lane		0.19	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1123	1144	88	2658	205	183		
V/C Ratio(X)	0.63	0.63	0.79	0.49	0.70	0.39		
Avail Cap(c_a), veh/h	1273	1297	267	3315	475	424		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	6.7	6.7	28.1	3.0	25.5	24.5		
Incr Delay (d2), s/veh	0.8	0.8	14.1	0.1	4.4	1.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.1	7.5	1.5	4.3	2.5	1.2		
LnGrp Delay(d),s/veh	7.5	7.5	42.2	3.1	29.8	25.8		
LnGrp LOS	A	A	D	A	C	C		
Approach Vol, veh/h	1434			1384	215			
Approach Delay, s/veh	7.5			5.0	28.5			
Approach LOS	A			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.0	41.9				48.9		10.9
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	9.0	43.0				56.0		16.0
Max Q Clear Time (g_c+I1), s	4.3	16.7				10.8		6.7
Green Ext Time (p_c), s	0.0	21.2				32.1		0.4
Intersection Summary								
HCM 2010 Ctrl Delay			7.9					
HCM 2010 LOS			A					

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	937	92	62	952	105	63	209	55	72	237	82
Future Volume (veh/h)	95	937	92	62	952	105	63	209	55	72	237	82
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	101	997	98	66	1013	112	67	222	59	77	252	87
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	1349	133	84	1295	143	85	353	94	98	340	117
Arrive On Green	0.06	0.41	0.41	0.05	0.40	0.40	0.05	0.25	0.25	0.06	0.26	0.26
Sat Flow, veh/h	1774	3256	320	1774	3214	355	1774	1419	377	1774	1325	457
Grp Volume(v), veh/h	101	542	553	66	557	568	67	0	281	77	0	339
Grp Sat Flow(s),veh/h/ln	1774	1770	1806	1774	1770	1800	1774	0	1796	1774	0	1782
Q Serve(g_s), s	3.9	17.7	17.7	2.5	18.8	18.8	2.6	0.0	9.5	2.9	0.0	11.9
Cycle Q Clear(g_c), s	3.9	17.7	17.7	2.5	18.8	18.8	2.6	0.0	9.5	2.9	0.0	11.9
Prop In Lane	1.00		0.18	1.00		0.20	1.00		0.21	1.00		0.26
Lane Grp Cap(c), veh/h	104	733	748	84	713	725	85	0	447	98	0	457
V/C Ratio(X)	0.97	0.74	0.74	0.79	0.78	0.78	0.79	0.00	0.63	0.78	0.00	0.74
Avail Cap(c_a), veh/h	104	751	767	104	751	764	104	0	447	104	0	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.1	16.9	16.9	32.2	17.8	17.8	32.2	0.0	22.8	31.9	0.0	23.3
Incr Delay (d2), s/veh	79.1	3.8	3.7	26.7	5.1	5.1	27.1	0.0	6.6	30.1	0.0	10.4
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	9.3	9.5	1.9	10.2	10.3	1.9	0.0	5.5	2.3	0.0	7.2
LnGrp Delay(d),s/veh	111.2	20.7	20.6	58.9	22.9	22.8	59.3	0.0	29.4	61.9	0.0	33.7
LnGrp LOS	F	C	C	E	C	C	E		C	E		C
Approach Vol, veh/h		1196			1191			348			416	
Approach Delay, s/veh		28.3			24.9			35.1			39.0	
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	7.2	32.3	7.3	21.5	8.0	31.5	7.8	21.0				
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	4.0	29.0	4.0	17.0	4.0	29.0	4.0	17.0				
Max Q Clear Time (g_c+I1), s	4.5	19.7	4.6	13.9	5.9	20.8	4.9	11.5				
Green Ext Time (p_c), s	0.0	7.5	0.0	1.1	0.0	6.7	0.0	1.7				
Intersection Summary												
HCM 2010 Ctrl Delay			29.2									
HCM 2010 LOS			C									

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	1	1	1	441	465	1
Future Vol, veh/h	1	1	1	441	465	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	1	544	574	1

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1122	575	0
Stage 1	575	-	-
Stage 2	547	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	228	518	998
Stage 1	563	-	-
Stage 2	580	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	228	518	998
Mov Cap-2 Maneuver	563	-	-
Stage 1	563	-	-
Stage 2	579	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	998	-	540	-	-
HCM Lane V/C Ratio	0.001	-	0.005	-	-
HCM Control Delay (s)	8.6	0	11.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Existing + Ambient + Project Conditions(Mitigated)- PM Peak Hour
2: Adams Street & Magnolia Avenue

10/20/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	971	415	178	976	146	495	498	191	190	427	108
Future Volume (veh/h)	151	971	415	178	976	146	495	498	191	190	427	108
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1895	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	154	991	423	182	996	149	505	508	195	194	436	110
Adj No. of Lanes	1	2	1	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	176	1232	821	207	1108	166	587	818	388	230	543	136
Arrive On Green	0.10	0.34	0.34	0.11	0.35	0.35	0.17	0.23	0.23	0.13	0.19	0.19
Sat Flow, veh/h	1703	3610	1615	1810	3143	470	3510	3539	1680	1774	2806	702
Grp Volume(v), veh/h	154	991	423	182	570	575	505	508	195	194	274	272
Grp Sat Flow(s),veh/h/ln	1703	1805	1615	1810	1800	1812	1755	1770	1680	1774	1770	1739
Q Serve(g_s), s	7.8	21.8	15.2	8.6	26.2	26.2	12.2	11.2	8.8	9.3	12.9	13.1
Cycle Q Clear(g_c), s	7.8	21.8	15.2	8.6	26.2	26.2	12.2	11.2	8.8	9.3	12.9	13.1
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	176	1232	821	207	635	639	587	818	388	230	343	337
V/C Ratio(X)	0.88	0.80	0.52	0.88	0.90	0.90	0.86	0.62	0.50	0.84	0.80	0.81
Avail Cap(c_a), veh/h	176	1241	825	207	640	644	644	852	404	264	365	359
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	26.1	14.3	38.0	26.8	26.8	35.3	30.1	29.2	37.1	33.6	33.6
Incr Delay (d2), s/veh	35.7	3.9	0.5	31.9	15.5	15.6	10.7	1.3	1.0	19.4	11.3	12.3
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	5.4	11.4	6.8	6.1	15.7	15.9	6.8	5.7	4.2	5.8	7.4	7.4
LnGrp Delay(d),s/veh	74.3	30.0	14.8	69.9	42.2	42.3	46.0	31.4	30.2	56.5	44.8	46.0
LnGrp LOS	E	C	B	E	D	D	D	C	C	E	D	D
Approach Vol, veh/h	1568				1327				1208			
Approach Delay, s/veh	30.3				46.1				37.3			
Approach LOS	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	14.0	33.8	18.6	20.9	13.0	34.8	15.3	24.2				
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	10.0	30.0	16.0	18.0	9.0	31.0	13.0	21.0				
Max Q Clear Time (g_c+I1), s	10.6	23.8	14.2	15.1	9.8	28.2	11.3	13.2				
Green Ext Time (p_c), s	0.0	5.5	0.4	1.8	0.0	2.5	0.1	4.0				
Intersection Summary												
HCM 2010 Ctrl Delay	39.1											
HCM 2010 LOS	D											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	62	143	46	39	64	95	826	24	48	928	19
Future Volume (veh/h)	21	62	143	46	39	64	95	826	24	48	928	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	25	75	172	55	47	77	114	995	29	58	1118	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	117	231	168	132	158	146	1763	51	78	1643	34
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.08	0.50	0.50	0.04	0.46	0.46
Sat Flow, veh/h	80	524	1038	347	595	711	1774	3512	102	1774	3547	73
Grp Volume(v), veh/h	272	0	0	179	0	0	114	501	523	58	558	583
Grp Sat Flow(s),veh/h/ln	1642	0	0	1652	0	0	1774	1770	1845	1774	1770	1850
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	0.0	3.3	10.2	10.2	1.7	12.8	12.8
Cycle Q Clear(g_c), s	7.9	0.0	0.0	4.6	0.0	0.0	3.3	10.2	10.2	1.7	12.8	12.8
Prop In Lane	0.09		0.63	0.31		0.43	1.00		0.06	1.00		0.04
Lane Grp Cap(c), veh/h	442	0	0	459	0	0	146	888	926	78	820	857
V/C Ratio(X)	0.62	0.00	0.00	0.39	0.00	0.00	0.78	0.56	0.56	0.75	0.68	0.68
Avail Cap(c_a), veh/h	611	0	0	613	0	0	240	888	926	205	820	857
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	0.0	0.0	17.5	0.0	0.0	23.3	9.0	9.0	24.5	10.9	10.9
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.5	0.0	0.0	8.6	2.6	2.5	13.3	4.5	4.3
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	3.8	0.0	0.0	2.3	0.0	0.0	1.9	5.5	5.7	1.1	7.2	7.5
LnGrp Delay(d),s/veh	20.1	0.0	0.0	18.0	0.0	0.0	31.9	11.6	11.5	37.8	15.4	15.3
LnGrp LOS	C			B			C	B	B	D	B	B
Approach Vol, veh/h		272			179			1138			1199	
Approach Delay, s/veh		20.1			18.0			13.5			16.4	
Approach LOS		C			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.5	8.3	28.0		15.5	6.3	30.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		17.0	7.0	24.0		17.0	6.0	25.0				
Max Q Clear Time (g_c+I1), s		9.9	5.3	14.8		6.6	3.7	12.2				
Green Ext Time (p_c), s		1.6	0.0	7.2		2.1	0.0	9.4				
Intersection Summary												
HCM 2010 Ctrl Delay			15.7									
HCM 2010 LOS			B									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	659	205	157	457	267	406	649	280	264	758	98
Future Volume (veh/h)	98	659	205	157	457	267	406	649	280	264	758	98
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1886	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	111	749	233	178	519	303	461	738	318	300	861	111
Adj No. of Lanes	1	2	1	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	138	866	641	214	604	352	551	943	448	337	945	122
Arrive On Green	0.08	0.24	0.24	0.12	0.28	0.28	0.16	0.27	0.27	0.19	0.30	0.30
Sat Flow, veh/h	1703	3610	1615	1810	2182	1271	3510	3539	1680	1774	3154	407
Grp Volume(v), veh/h	111	749	233	178	426	396	461	738	318	300	483	489
Grp Sat Flow(s),veh/h/ln	1703	1805	1615	1810	1792	1662	1755	1770	1680	1774	1770	1791
Q Serve(g_s), s	5.5	17.2	8.8	8.3	19.4	19.5	11.0	16.7	14.8	14.2	22.7	22.7
Cycle Q Clear(g_c), s	5.5	17.2	8.8	8.3	19.4	19.5	11.0	16.7	14.8	14.2	22.7	22.7
Prop In Lane	1.00		1.00	1.00		0.76	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	138	866	641	214	496	460	551	943	448	337	530	536
V/C Ratio(X)	0.80	0.86	0.36	0.83	0.86	0.86	0.84	0.78	0.71	0.89	0.91	0.91
Avail Cap(c_a), veh/h	158	880	647	231	499	463	652	985	468	370	534	540
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	31.4	18.3	37.2	29.6	29.6	35.3	29.3	28.6	34.0	29.1	29.1
Incr Delay (d2), s/veh	22.4	8.9	0.3	21.0	14.0	15.1	8.2	4.0	4.7	21.3	19.8	19.7
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	3.5	9.6	3.9	5.4	11.5	10.8	5.9	8.6	7.4	8.9	13.9	14.1
LnGrp Delay(d),s/veh	61.4	40.3	18.7	58.2	43.5	44.7	43.5	33.3	33.4	55.3	48.9	48.7
LnGrp LOS	E	D	B	E	D	D	D	C	C	E	D	D
Approach Vol, veh/h		1093			1000			1517			1272	
Approach Delay, s/veh		37.8			46.6			36.4			50.4	
Approach LOS		D			D			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	14.2	24.7	17.5	29.8	11.0	27.9	20.4	27.0				
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	11.0	21.0	16.0	26.0	8.0	24.0	18.0	24.0				
Max Q Clear Time (g_c+I1), s	10.3	19.2	13.0	24.7	7.5	21.5	16.2	18.7				
Green Ext Time (p_c), s	0.0	1.5	0.5	1.1	0.0	2.0	0.2	4.2				
Intersection Summary												
HCM 2010 Ctrl Delay			42.5									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	3	113	49	4	20	547	1145	13	10	902	92
Future Volume (veh/h)	18	3	113	49	4	20	547	1145	13	10	902	92
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1937	1863	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	22	4	136	59	5	24	659	1380	16	12	1087	111
Adj No. of Lanes	1	1	1	0	1	0	2	2	0	1	3	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	206	169	139	18	42	736	2832	33	19	2755	281
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.28	1.00	1.00	0.01	0.59	0.59
Sat Flow, veh/h	1375	1937	1583	873	169	391	3442	3583	42	1774	4690	478
Grp Volume(v), veh/h	22	4	136	88	0	0	659	681	715	12	785	413
Grp Sat Flow(s),veh/h/ln	1375	1937	1583	1434	0	0	1721	1770	1855	1774	1695	1778
Q Serve(g_s), s	0.0	0.2	10.9	6.5	0.0	0.0	23.9	0.0	0.0	0.9	16.2	16.2
Cycle Q Clear(g_c), s	1.9	0.2	10.9	7.4	0.0	0.0	23.9	0.0	0.0	0.9	16.2	16.2
Prop In Lane	1.00		1.00	0.67		0.27	1.00		0.02	1.00		0.27
Lane Grp Cap(c), veh/h	203	206	169	199	0	0	736	1399	1467	19	1991	1044
V/C Ratio(X)	0.11	0.02	0.81	0.44	0.00	0.00	0.90	0.49	0.49	0.63	0.39	0.40
Avail Cap(c_a), veh/h	374	447	365	373	0	0	980	1399	1467	273	1991	1044
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.45	0.45	0.45
Uniform Delay (d), s/veh	52.7	52.0	56.8	55.1	0.0	0.0	45.1	0.0	0.0	64.0	14.4	14.4
Incr Delay (d2), s/veh	0.2	0.0	8.8	1.5	0.0	0.0	8.6	1.2	1.2	14.1	0.3	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	0.7	0.1	5.2	3.1	0.0	0.0	12.2	0.5	0.5	0.5	7.6	8.1
LnGrp Delay(d),s/veh	53.0	52.0	65.5	56.6	0.0	0.0	53.7	1.2	1.2	78.1	14.7	14.9
LnGrp LOS	D	D	E	E			D	A	A	E	B	B
Approach Vol, veh/h		162			88			2055			1210	
Approach Delay, s/veh		63.5			56.6			18.0			15.4	
Approach LOS		E			E			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.8	31.8	80.4		17.8	5.4	106.8				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		30.0	37.0	51.0		30.0	20.0	68.0				
Max Q Clear Time (g_c+I1), s		12.9	25.9	18.2		9.4	2.9	2.0				
Green Ext Time (p_c), s		0.9	1.9	22.5		1.0	0.0	33.7				
Intersection Summary												
HCM 2010 Ctrl Delay			20.2									
HCM 2010 LOS			C									

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	8	1689	17	0	1005
Future Vol, veh/h	0	8	1689	17	0	1005
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	10	2035	20	0	1211

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2529	1028	0
Stage 1	2045	-	-
Stage 2	484	-	-
Critical Hdwy	6.25	6.9	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	6	-	-
Follow-up Hdwy	3.65	3.3	2.2
Pot Cap-1 Maneuver	34	235	277
Stage 1	87	-	-
Stage 2	557	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	34	235	277
Mov Cap-2 Maneuver	34	-	-
Stage 1	87	-	-
Stage 2	557	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 235	277	-
HCM Lane V/C Ratio	-	- 0.041	-	-
HCM Control Delay (s)	-	- 21	0	-
HCM Lane LOS	-	- C	A	-
HCM 95th %tile Q(veh)	-	- 0.1	0	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	353	1	702	217	937	0	0	622	468
Future Volume (veh/h)	0	0	0	353	1	702	217	937	0	0	622	468
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				425	316	636	261	1129	0	0	749	564
Adj No. of Lanes				0	1	1	1	2	0	0	3	0
Peak Hour Factor				0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				442	328	673	337	1816	0	0	991	463
Arrive On Green				0.43	0.43	0.43	0.06	0.17	0.00	0.00	0.10	0.10
Sat Flow, veh/h				1039	772	1583	1774	3632	0	0	3558	1583
Grp Volume(v), veh/h				741	0	636	261	1129	0	0	749	564
Grp Sat Flow(s),veh/h/ln				1811	0	1583	1774	1770	0	0	1695	1583
Q Serve(g_s), s				51.7	0.0	50.2	18.8	38.5	0.0	0.0	28.0	38.0
Cycle Q Clear(g_c), s				51.7	0.0	50.2	18.8	38.5	0.0	0.0	28.0	38.0
Prop In Lane				0.57		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				770	0	673	337	1816	0	0	991	463
V/C Ratio(X)				0.96	0.00	0.94	0.77	0.62	0.00	0.00	0.76	1.22
Avail Cap(c_a), veh/h				780	0	682	337	1816	0	0	991	463
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.80	0.80	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.3	0.0	35.9	58.2	42.3	0.0	0.0	54.2	58.7
Incr Delay (d2), s/veh				23.2	0.0	21.7	8.7	1.3	0.0	0.0	5.4	116.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				30.7	0.0	26.0	10.1	19.2	0.0	0.0	13.9	31.7
LnGrp Delay(d),s/veh				59.5	0.0	57.6	66.9	43.6	0.0	0.0	59.6	175.4
LnGrp LOS				E		E	E	D			E	F
Approach Vol, veh/h					1377			1390			1313	
Approach Delay, s/veh					58.6			47.9			109.3	
Approach LOS					E			D			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			28.7	42.0		59.3		70.7				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			24.0	38.0		56.0		66.0				
Max Q Clear Time (g_c+I1), s			20.8	40.0		53.7		40.5				
Green Ext Time (p_c), s			2.2	0.0		1.5		9.3				
Intersection Summary												
HCM 2010 Ctrl Delay			71.3									
HCM 2010 LOS			E									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (veh/h)	589	2	603	0	0	0	0	551	228	300	645	0
Future Volume (veh/h)	589	2	603	0	0	0	0	551	228	300	645	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	627	2	641				0	586	243	319	686	0
Adj No. of Lanes	0	1	1				0	3	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	680	2	609				0	1174	475	343	1960	0
Arrive On Green	0.38	0.38	0.38				0.00	0.11	0.11	0.39	1.00	0.00
Sat Flow, veh/h	1769	6	1583				0	3726	1440	1774	3632	0
Grp Volume(v), veh/h	629	0	641				0	558	271	319	686	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1609	1774	1770	0
Q Serve(g_s), s	43.9	0.0	50.0				0.0	20.1	20.7	22.4	0.0	0.0
Cycle Q Clear(g_c), s	43.9	0.0	50.0				0.0	20.1	20.7	22.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	682	0	609				0	1118	530	343	1960	0
V/C Ratio(X)	0.92	0.00	1.05				0.00	0.50	0.51	0.93	0.35	0.00
Avail Cap(c_a), veh/h	682	0	609				0	1118	530	505	1960	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.85	0.85	0.44	0.44	0.00
Uniform Delay (d), s/veh	38.1	0.0	40.0				0.0	47.8	48.0	39.0	0.0	0.0
Incr Delay (d2), s/veh	18.0	0.0	51.1				0.0	1.3	3.0	9.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.9	0.0	30.5				0.0	9.7	9.7	11.8	0.1	0.0
LnGrp Delay(d),s/veh	56.2	0.0	91.1				0.0	49.2	51.0	49.0	0.2	0.0
LnGrp LOS	E		F					D	D	D	A	
Approach Vol, veh/h		1270						829			1005	
Approach Delay, s/veh		73.8						49.8			15.7	
Approach LOS		E						D			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		54.0		76.0			29.1	46.9				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		50.0		72.0			37.0	31.0				
Max Q Clear Time (g_c+I1), s		52.0		2.0			24.4	22.7				
Green Ext Time (p_c), s		0.0		13.7			0.7	5.3				
Intersection Summary												
HCM 2010 Ctrl Delay			48.6									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	458	44	42	131	104	21	528	32	377	788	104
Future Volume (veh/h)	112	458	44	42	131	104	21	528	32	377	788	104
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	123	503	48	46	144	114	23	580	35	414	866	114
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	604	57	59	262	193	31	1400	84	436	2017	265
Arrive On Green	0.08	0.18	0.18	0.03	0.13	0.13	0.02	0.41	0.41	0.49	1.00	1.00
Sat Flow, veh/h	1774	3267	311	1774	1943	1436	1774	3392	204	1774	3145	414
Grp Volume(v), veh/h	123	272	279	46	130	128	23	302	313	414	487	493
Grp Sat Flow(s),veh/h/ln	1774	1770	1808	1774	1770	1609	1774	1770	1827	1774	1770	1790
Q Serve(g_s), s	8.9	19.2	19.4	3.3	8.9	9.7	1.7	15.7	15.8	28.9	0.0	0.0
Cycle Q Clear(g_c), s	8.9	19.2	19.4	3.3	8.9	9.7	1.7	15.7	15.8	28.9	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.89	1.00		0.11	1.00		0.23
Lane Grp Cap(c), veh/h	148	327	334	59	238	217	31	730	754	436	1135	1148
V/C Ratio(X)	0.83	0.83	0.84	0.78	0.55	0.59	0.75	0.41	0.41	0.95	0.43	0.43
Avail Cap(c_a), veh/h	218	381	389	123	286	260	82	730	754	600	1135	1148
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81	0.77	0.77	0.77
Uniform Delay (d), s/veh	58.7	51.0	51.1	62.3	52.5	52.9	63.6	27.0	27.0	32.3	0.0	0.0
Incr Delay (d2), s/veh	15.5	12.7	12.9	19.1	1.9	2.5	24.8	1.4	1.4	17.4	0.9	0.9
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	10.6	10.9	2.0	4.5	4.5	1.0	7.9	8.2	16.1	0.3	0.3
LnGrp Delay(d),s/veh	74.2	63.7	64.0	81.4	54.5	55.4	88.3	28.4	28.4	49.6	0.9	0.9
LnGrp LOS	E	E	E	F	D	E	F	C	C	D	A	A
Approach Vol, veh/h		674			304			638			1394	
Approach Delay, s/veh		65.7			58.9			30.6			15.4	
Approach LOS		E			E			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+Rc), s	8.3	28.0	6.3	87.4	14.9	21.5	36.0	57.7				
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	9.0	28.0	6.0	71.0	16.0	21.0	44.0	33.0				
Max Q Clear Time (g_c+I1), s	5.3	21.4	3.7	2.0	10.9	11.7	30.9	17.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	13.3	0.1	3.4	1.0	8.1				
Intersection Summary												
HCM 2010 Ctrl Delay			34.3									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	192	12	4	195	131	16	440	14	125	175	56
Future Volume (veh/h)	121	192	12	4	195	131	16	440	14	125	175	56
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	153	243	15	5	247	166	20	557	18	158	222	71
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	994	61	9	404	262	34	1137	37	182	1086	338
Arrive On Green	0.10	0.29	0.29	0.01	0.20	0.20	0.02	0.32	0.32	0.10	0.41	0.41
Sat Flow, veh/h	1774	3388	208	1774	2061	1335	1774	3499	113	1774	2658	828
Grp Volume(v), veh/h	153	126	132	5	211	202	20	281	294	158	146	147
Grp Sat Flow(s),veh/h/ln	1774	1770	1826	1774	1770	1627	1774	1770	1843	1774	1770	1717
Q Serve(g_s), s	5.0	3.2	3.2	0.2	6.4	6.7	0.7	7.5	7.5	5.1	3.1	3.2
Cycle Q Clear(g_c), s	5.0	3.2	3.2	0.2	6.4	6.7	0.7	7.5	7.5	5.1	3.1	3.2
Prop In Lane	1.00		0.11	1.00		0.82	1.00		0.06	1.00		0.48
Lane Grp Cap(c), veh/h	182	519	536	9	347	319	34	575	599	182	723	701
V/C Ratio(X)	0.84	0.24	0.25	0.53	0.61	0.63	0.59	0.49	0.49	0.87	0.20	0.21
Avail Cap(c_a), veh/h	182	545	562	182	545	501	182	575	599	182	723	701
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	15.7	15.7	29.0	21.4	21.6	28.5	15.8	15.8	25.8	11.1	11.2
Incr Delay (d2), s/veh	28.1	0.2	0.2	38.9	1.7	2.1	15.6	3.0	2.9	33.1	0.6	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	3.8	1.6	1.6	0.2	3.3	3.2	0.5	4.1	4.2	4.2	1.6	1.6
LnGrp Delay(d),s/veh	53.8	16.0	16.0	67.9	23.2	23.7	44.0	18.8	18.7	58.9	11.8	11.9
LnGrp LOS	D	B	B	E	C	C	D	B	B	E	B	B
Approach Vol, veh/h		411			418			595			451	
Approach Delay, s/veh		30.1			23.9			19.6			28.3	
Approach LOS		C			C			B			C	
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	4.3	21.2	5.1	27.9	10.0	15.5	10.0	23.0				
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	6.0	18.0	6.0	19.0	6.0	18.0	6.0	19.0				
Max Q Clear Time (g_c+I1), s	2.2	5.2	2.7	5.2	7.0	8.7	7.1	9.5				
Green Ext Time (p_c), s	0.0	3.3	0.0	4.0	0.0	2.8	0.0	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay			25.0									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	849	98	81	566	123	88	439	107	115	290	101
Future Volume (veh/h)	126	849	98	81	566	123	88	439	107	115	290	101
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	152	1023	118	98	682	148	106	529	129	139	349	122
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	1216	140	125	994	215	135	636	154	157	614	211
Arrive On Green	0.11	0.38	0.38	0.07	0.34	0.34	0.08	0.23	0.23	0.09	0.24	0.24
Sat Flow, veh/h	1774	3199	369	1774	2894	628	1774	2825	686	1774	2585	890
Grp Volume(v), veh/h	152	566	575	98	417	413	106	330	328	139	237	234
Grp Sat Flow(s),veh/h/ln	1774	1770	1798	1774	1770	1752	1774	1770	1742	1774	1770	1706
Q Serve(g_s), s	5.7	19.8	19.8	3.7	13.7	13.8	4.0	12.1	12.2	5.3	8.0	8.2
Cycle Q Clear(g_c), s	5.7	19.8	19.8	3.7	13.7	13.8	4.0	12.1	12.2	5.3	8.0	8.2
Prop In Lane	1.00		0.21	1.00		0.36	1.00		0.39	1.00		0.52
Lane Grp Cap(c), veh/h	190	673	683	125	608	602	135	399	392	157	420	405
V/C Ratio(X)	0.80	0.84	0.84	0.78	0.69	0.69	0.78	0.83	0.83	0.89	0.56	0.58
Avail Cap(c_a), veh/h	235	704	715	131	608	602	157	417	411	157	420	405
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	19.2	19.2	31.0	19.1	19.2	30.8	25.1	25.1	30.6	22.8	22.9
Incr Delay (d2), s/veh	14.4	8.7	8.7	25.0	3.2	3.3	19.7	12.7	13.4	40.9	1.7	2.0
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	11.2	11.4	2.7	7.3	7.2	2.7	7.3	7.3	4.3	4.1	4.1
LnGrp Delay(d),s/veh	44.0	27.9	27.9	56.1	22.4	22.4	50.5	37.8	38.5	71.5	24.5	24.9
LnGrp LOS	D	C	C	E	C	C	D	D	D	E	C	C
Approach Vol, veh/h	1293			928				764			610	
Approach Delay, s/veh	29.8			25.9				39.9			35.4	
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	8.8	29.8	9.2	20.1	11.3	27.3	10.0	19.3				
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	5.0	27.0	6.0	16.0	9.0	23.0	6.0	16.0				
Max Q Clear Time (g_c+I1), s	5.7	21.8	6.0	10.2	7.7	15.8	7.3	14.2				
Green Ext Time (p_c), s	0.0	4.0	0.0	3.3	0.0	5.7	0.0	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay	31.9											
HCM 2010 LOS	C											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1023	164	101	676	38	13	14	4	33	105	63
Future Volume (veh/h)	37	1023	164	101	676	38	13	14	4	33	105	63
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	42	1149	184	113	760	43	15	16	4	37	118	71
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	529	2077	331	331	2313	131	184	169	33	109	172	93
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	675	3058	488	409	3406	193	516	975	192	181	989	536
Grp Volume(v), veh/h	42	663	670	113	395	408	35	0	0	226	0	0
Grp Sat Flow(s),veh/h/ln	675	1770	1777	409	1770	1829	1683	0	0	1706	0	0
Q Serve(g_s), s	1.5	10.5	10.6	10.7	5.0	5.0	0.0	0.0	0.0	3.6	0.0	0.0
Cycle Q Clear(g_c), s	6.5	10.5	10.6	21.2	5.0	5.0	0.9	0.0	0.0	6.8	0.0	0.0
Prop In Lane	1.00		0.27	1.00		0.11	0.43		0.11	0.16		0.31
Lane Grp Cap(c), veh/h	529	1202	1206	331	1202	1242	387	0	0	373	0	0
V/C Ratio(X)	0.08	0.55	0.56	0.34	0.33	0.33	0.09	0.00	0.00	0.61	0.00	0.00
Avail Cap(c_a), veh/h	580	1335	1340	362	1335	1380	565	0	0	576	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	4.9	4.5	4.5	10.0	3.6	3.6	18.9	0.0	0.0	21.3	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.6	0.2	0.2	0.1	0.0	0.0	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.1	5.2	1.2	2.5	2.5	0.4	0.0	0.0	3.4	0.0	0.0
LnGrp Delay(d),s/veh	5.0	4.9	4.9	10.6	3.8	3.8	19.0	0.0	0.0	22.9	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	B			C		
Approach Vol, veh/h	1375			916			35			226		
Approach Delay, s/veh	4.9			4.6			19.0			22.9		
Approach LOS	A			A			B			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	40.9		13.4		40.9		13.4					
Change Period (Y+Rc), s	4.0		4.0		4.0		4.0					
Max Green Setting (Gmax), s	41.0		16.0		41.0		16.0					
Max Q Clear Time (g_c+I1), s	12.6		8.8		23.2		2.9					
Green Ext Time (p_c), s	19.5		0.8		13.7		1.2					
Intersection Summary												
HCM 2010 Ctrl Delay	6.6											
HCM 2010 LOS	A											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	822	109	107	373	61	175	255	169	116	302	63
Future Volume (veh/h)	96	822	109	107	373	61	175	255	169	116	302	63
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	125	1068	142	139	484	79	227	331	219	151	392	82
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	1130	150	162	1095	178	242	526	447	186	374	78
Arrive On Green	0.09	0.35	0.35	0.09	0.35	0.35	0.13	0.28	0.28	0.10	0.25	0.25
Sat Flow, veh/h	1737	3204	425	1810	3111	505	1810	1900	1615	1810	1525	319
Grp Volume(v), veh/h	125	601	609	139	280	283	227	331	219	151	0	474
Grp Sat Flow(s),veh/h/ln	1737	1805	1825	1810	1805	1811	1810	1900	1615	1810	0	1844
Q Serve(g_s), s	6.3	28.9	29.1	6.8	10.7	10.8	11.1	13.7	10.2	7.3	0.0	22.0
Cycle Q Clear(g_c), s	6.3	28.9	29.1	6.8	10.7	10.8	11.1	13.7	10.2	7.3	0.0	22.0
Prop In Lane	1.00		0.23	1.00		0.28	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	156	637	644	162	635	637	242	526	447	186	0	453
V/C Ratio(X)	0.80	0.94	0.95	0.86	0.44	0.44	0.94	0.63	0.49	0.81	0.00	1.05
Avail Cap(c_a), veh/h	271	645	652	162	635	637	242	526	447	242	0	453
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.0	28.1	28.2	40.3	22.3	22.3	38.4	28.4	27.1	39.4	0.0	33.8
Incr Delay (d2), s/veh	9.0	22.5	22.7	34.6	0.5	0.5	40.8	2.4	0.8	14.7	0.0	55.2
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	3.4	18.3	18.6	5.0	5.4	5.4	8.3	7.5	4.7	4.4	0.0	18.0
LnGrp Delay(d),s/veh	49.0	50.6	50.9	74.9	22.8	22.8	79.2	30.8	27.9	54.1	0.0	89.0
LnGrp LOS	D	D	D	E	C	C	E	C	C	D		F
Approach Vol, veh/h		1335			702			777			625	
Approach Delay, s/veh		50.6			33.1			44.1			80.6	
Approach LOS		D			C			D			F	
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	12.0	35.6	16.0	26.0	12.1	35.5	13.2	28.8				
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	8.0	32.0	12.0	22.0	14.0	26.0	12.0	22.0				
Max Q Clear Time (g_c+I1), s	8.8	31.1	13.1	24.0	8.3	12.8	9.3	15.7				
Green Ext Time (p_c), s	0.0	0.6	0.0	0.0	0.1	8.5	0.1	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay			51.0									
HCM 2010 LOS			D									

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations								
Traffic Volume (veh/h)	795	182	93	600	36	18		
Future Volume (veh/h)	795	182	93	600	36	18		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	883	202	103	667	40	20		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1461	334	131	2435	184	165		
Arrive On Green	0.51	0.51	0.07	0.69	0.10	0.10		
Sat Flow, veh/h	2956	654	1774	3632	1774	1583		
Grp Volume(v), veh/h	546	539	103	667	40	20		
Grp Sat Flow(s),veh/h/ln	1770	1747	1774	1770	1774	1583		
Q Serve(g_s), s	8.4	8.4	2.2	2.8	0.8	0.4		
Cycle Q Clear(g_c), s	8.4	8.4	2.2	2.8	0.8	0.4		
Prop In Lane		0.37	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	903	892	131	2435	184	165		
V/C Ratio(X)	0.60	0.60	0.79	0.27	0.22	0.12		
Avail Cap(c_a), veh/h	1150	1135	323	3312	738	658		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	6.7	6.7	17.5	2.3	15.8	15.6		
Incr Delay (d2), s/veh	0.7	0.7	10.0	0.1	0.6	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.1	4.1	1.4	1.3	0.4	0.2		
LnGrp Delay(d),s/veh	7.3	7.3	27.5	2.4	16.4	16.0		
LnGrp LOS	A	A	C	A	B	B		
Approach Vol, veh/h	1085			770	60			
Approach Delay, s/veh	7.3			5.7	16.2			
Approach LOS	A			A	B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.8	23.6				30.5		8.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	25.0				36.0		16.0
Max Q Clear Time (g_c+I1), s	4.2	10.4				4.8		2.8
Green Ext Time (p_c), s	0.1	9.2				14.4		0.1
Intersection Summary								
HCM 2010 Ctrl Delay			7.0					
HCM 2010 LOS			A					

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	888	85	69	583	117	111	149	70	113	152	107
Future Volume (veh/h)	72	888	85	69	583	117	111	149	70	113	152	107
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	90	1110	106	86	729	146	139	186	88	141	190	134
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	1278	122	103	1130	226	154	278	131	154	236	167
Arrive On Green	0.06	0.39	0.39	0.06	0.38	0.38	0.09	0.23	0.23	0.09	0.23	0.23
Sat Flow, veh/h	1774	3266	312	1774	2940	589	1774	1197	566	1774	1018	718
Grp Volume(v), veh/h	90	601	615	86	439	436	139	0	274	141	0	324
Grp Sat Flow(s),veh/h/ln	1774	1770	1808	1774	1770	1759	1774	0	1763	1774	0	1736
Q Serve(g_s), s	3.4	21.6	21.7	3.3	14.0	14.0	5.4	0.0	9.8	5.4	0.0	12.2
Cycle Q Clear(g_c), s	3.4	21.6	21.7	3.3	14.0	14.0	5.4	0.0	9.8	5.4	0.0	12.2
Prop In Lane	1.00		0.17	1.00		0.33	1.00		0.32	1.00		0.41
Lane Grp Cap(c), veh/h	115	692	707	103	680	676	154	0	409	154	0	403
V/C Ratio(X)	0.78	0.87	0.87	0.84	0.65	0.65	0.90	0.00	0.67	0.91	0.00	0.80
Avail Cap(c_a), veh/h	154	718	734	103	680	676	154	0	409	154	0	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.8	19.4	19.4	32.2	17.4	17.4	31.2	0.0	24.1	31.2	0.0	25.0
Incr Delay (d2), s/veh	16.5	10.8	10.7	42.2	2.1	2.1	44.7	0.0	8.5	47.9	0.0	15.6
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	2.2	12.6	12.9	2.8	7.2	7.2	4.5	0.0	5.7	4.7	0.0	7.5
LnGrp Delay(d),s/veh	48.3	30.1	30.1	74.4	19.5	19.5	75.9	0.0	32.6	79.1	0.0	40.7
LnGrp LOS	D	C	C	E	B	B	E		C	E		D
Approach Vol, veh/h	1306			961				413			465	
Approach Delay, s/veh	31.4			24.4				47.2			52.3	
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	8.0	31.0	10.0	20.0	8.5	30.5	10.0	20.0				
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	4.0	28.0	6.0	16.0	6.0	26.0	6.0	16.0				
Max Q Clear Time (g_c+I1), s	5.3	23.7	7.4	14.2	5.4	16.0	7.4	11.8				
Green Ext Time (p_c), s	0.0	3.3	0.0	0.7	0.0	7.7	0.0	1.4				
Intersection Summary												
HCM 2010 Ctrl Delay	34.4											
HCM 2010 LOS	C											

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	1	1	1	587	492	1
Future Vol, veh/h	1	1	1	587	492	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	1	725	607	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1335	608	609	0	-	0
Stage 1	608	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	169	496	970	-	-	-
Stage 1	543	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	169	496	970	-	-	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	543	-	-	-	-	-
Stage 2	477	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	970	-	252	-	-
HCM Lane V/C Ratio	0.001	-	0.01	-	-
HCM Control Delay (s)	8.7	0	19.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	11	40	35	4	19	44	799	35	20	620	19
Future Volume (veh/h)	27	11	40	35	4	19	44	799	35	20	620	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	28	11	41	36	4	19	45	815	36	20	633	19
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	22	74	254	10	46	72	1887	83	36	1846	55
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.04	0.55	0.55	0.02	0.53	0.53
Sat Flow, veh/h	552	245	838	992	110	523	1774	3453	153	1774	3509	105
Grp Volume(v), veh/h	80	0	0	59	0	0	45	418	433	20	319	333
Grp Sat Flow(s),veh/h/ln	1635	0	0	1625	0	0	1774	1770	1836	1774	1770	1844
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.0	0.9	4.9	4.9	0.4	3.6	3.6
Cycle Q Clear(g_c), s	1.5	0.0	0.0	1.1	0.0	0.0	0.9	4.9	4.9	0.4	3.6	3.6
Prop In Lane	0.35		0.51	0.61		0.32	1.00		0.08	1.00		0.06
Lane Grp Cap(c), veh/h	284	0	0	310	0	0	72	967	1003	36	931	970
V/C Ratio(X)	0.28	0.00	0.00	0.19	0.00	0.00	0.63	0.43	0.43	0.56	0.34	0.34
Avail Cap(c_a), veh/h	1032	0	0	1013	0	0	255	967	1003	204	931	970
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	0.0	14.9	0.0	0.0	16.4	4.7	4.7	16.9	4.8	4.8
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.3	0.0	0.0	8.6	1.4	1.4	12.9	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.5	0.0	0.0	0.6	2.7	2.8	0.3	1.9	2.0
LnGrp Delay(d),s/veh	15.7	0.0	0.0	15.2	0.0	0.0	25.0	6.1	6.0	29.7	5.8	5.7
LnGrp LOS	B			B			C	A	A	C	A	A
Approach Vol, veh/h		80			59			896			672	
Approach Delay, s/veh		15.7			15.2			7.0			6.5	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.1	5.4	22.3		7.1	4.7	23.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		20.0	5.0	18.0		20.0	4.0	19.0				
Max Q Clear Time (g_c+I1), s		3.5	2.9	5.6		3.1	2.4	6.9				
Green Ext Time (p_c), s		0.6	0.0	6.6		0.6	0.0	6.6				
Intersection Summary												
HCM 2010 Ctrl Delay			7.5									
HCM 2010 LOS			A									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	999	420	178	1001	157	503	505	195	198	434	108
Future Volume (veh/h)	151	999	420	178	1001	157	503	505	195	198	434	108
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1895	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	154	1019	429	182	1021	160	513	515	199	202	443	110
Adj No. of Lanes	1	2	1	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	175	1231	824	206	1100	172	593	808	383	238	546	134
Arrive On Green	0.10	0.34	0.34	0.11	0.35	0.35	0.17	0.23	0.23	0.13	0.19	0.19
Sat Flow, veh/h	1703	3610	1615	1810	3120	488	3510	3539	1680	1774	2816	694
Grp Volume(v), veh/h	154	1019	429	182	588	593	513	515	199	202	277	276
Grp Sat Flow(s),veh/h/ln	1703	1805	1615	1810	1800	1809	1755	1770	1680	1774	1770	1740
Q Serve(g_s), s	7.8	22.7	15.6	8.7	27.6	27.7	12.5	11.5	9.1	9.8	13.1	13.3
Cycle Q Clear(g_c), s	7.8	22.7	15.6	8.7	27.6	27.7	12.5	11.5	9.1	9.8	13.1	13.3
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	175	1231	824	206	634	637	593	808	383	238	343	337
V/C Ratio(X)	0.88	0.83	0.52	0.88	0.93	0.93	0.87	0.64	0.52	0.85	0.81	0.82
Avail Cap(c_a), veh/h	175	1234	825	206	636	639	640	808	383	283	363	357
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	26.5	14.3	38.3	27.3	27.4	35.5	30.6	29.6	37.1	33.8	33.9
Incr Delay (d2), s/veh	36.9	4.8	0.6	32.9	19.9	20.2	11.3	1.7	1.2	18.3	12.2	13.3
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	5.5	12.1	7.0	6.2	17.2	17.4	7.0	5.8	4.3	6.0	7.6	7.6
LnGrp Delay(d),s/veh	75.7	31.3	14.9	71.2	47.2	47.5	46.8	32.3	30.9	55.3	46.0	47.2
LnGrp LOS	E	C	B	E	D	D	D	C	C	E	D	D
Approach Vol, veh/h		1602			1363			1227			755	
Approach Delay, s/veh		31.2			50.6			38.1			48.9	
Approach LOS		C			D			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	14.0	33.9	18.8	21.0	13.0	34.9	15.8	24.0				
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	10.0	30.0	16.0	18.0	9.0	31.0	14.0	20.0				
Max Q Clear Time (g_c+I1), s	10.7	24.7	14.5	15.3	9.8	29.7	11.8	13.5				
Green Ext Time (p_c), s	0.0	4.7	0.3	1.7	0.0	1.2	0.1	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			41.0									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	8	413	29	2	15	413	1057	17	9	923	66
Future Volume (veh/h)	68	8	413	29	2	15	413	1057	17	9	923	66
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1937	1863	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	73	9	444	31	2	16	444	1137	18	10	992	71
Adj No. of Lanes	1	1	1	0	1	0	2	2	0	1	3	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	504	536	438	279	34	108	575	1884	30	18	1799	129
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.17	0.53	0.53	0.01	0.37	0.37
Sat Flow, veh/h	1389	1937	1583	680	123	389	3442	3566	56	1774	4846	346
Grp Volume(v), veh/h	73	9	444	49	0	0	444	564	591	10	694	369
Grp Sat Flow(s),veh/h/ln	1389	1937	1583	1193	0	0	1721	1770	1853	1774	1695	1802
Q Serve(g_s), s	0.8	0.2	18.0	0.2	0.0	0.0	8.0	14.4	14.4	0.4	10.5	10.5
Cycle Q Clear(g_c), s	2.2	0.2	18.0	1.4	0.0	0.0	8.0	14.4	14.4	0.4	10.5	10.5
Prop In Lane	1.00		1.00	0.63		0.33	1.00		0.03	1.00		0.19
Lane Grp Cap(c), veh/h	504	536	438	421	0	0	575	935	979	18	1259	669
V/C Ratio(X)	0.14	0.02	1.01	0.12	0.00	0.00	0.77	0.60	0.60	0.55	0.55	0.55
Avail Cap(c_a), veh/h	504	536	438	421	0	0	847	935	979	437	1259	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.64	0.64	0.64
Uniform Delay (d), s/veh	17.7	17.1	23.5	17.5	0.0	0.0	25.9	10.6	10.6	32.0	16.1	16.2
Incr Delay (d2), s/veh	0.1	0.0	46.2	0.1	0.0	0.0	2.6	2.9	2.8	16.0	1.1	2.1
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	1.0	0.1	13.4	0.7	0.0	0.0	4.0	7.6	8.0	0.3	5.1	5.6
LnGrp Delay(d),s/veh	17.9	17.1	69.7	17.6	0.0	0.0	28.5	13.5	13.4	48.0	17.3	18.3
LnGrp LOS	B	B	F	B			C	B	B	D	B	B
Approach Vol, veh/h		526			49			1599			1073	
Approach Delay, s/veh		61.6			17.6			17.6			17.9	
Approach LOS		E			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.0	14.9	28.1		22.0	4.7	38.3				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	16.0	19.0		18.0	16.0	19.0				
Max Q Clear Time (g_c+I1), s		20.0	10.0	12.5		3.4	2.4	16.4				
Green Ext Time (p_c), s		0.0	0.8	5.4		2.0	0.0	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			24.8									
HCM 2010 LOS			C									

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	10	1419	43	0	1312
Future Vol, veh/h	0	10	1419	43	0	1312
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	12	1710	52	0	1581

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2368	881	0
Stage 1	1736	-	-
Stage 2	632	-	-
Critical Hdwy	6.25	6.9	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	6	-	-
Follow-up Hdwy	3.65	3.3	2.2
Pot Cap-1 Maneuver	43	294	360
Stage 1	128	-	-
Stage 2	466	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	43	294	360
Mov Cap-2 Maneuver	43	-	-
Stage 1	128	-	-
Stage 2	466	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 294	360	-
HCM Lane V/C Ratio	-	- 0.041	-	-
HCM Control Delay (s)	-	- 17.8	0	-
HCM Lane LOS	-	- C	A	-
HCM 95th %tile Q(veh)	-	- 0.1	0	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	226	3	515	363	880	0	0	809	615
Future Volume (veh/h)	0	0	0	226	3	515	363	880	0	0	809	615
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1900
Adj Flow Rate, veh/h				233	224	384	374	907	0	0	834	634
Adj No. of Lanes				0	1	1	1	2	0	0	3	0
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				248	239	424	400	2308	0	0	1310	612
Arrive On Green				0.27	0.27	0.27	0.45	1.00	0.00	0.00	0.13	0.13
Sat Flow, veh/h				926	890	1583	1774	3632	0	0	3558	1583
Grp Volume(v), veh/h				457	0	384	374	907	0	0	834	634
Grp Sat Flow(s),veh/h/ln				1816	0	1583	1774	1770	0	0	1695	1583
Q Serve(g_s), s				24.6	0.0	23.4	20.0	0.0	0.0	0.0	23.4	38.7
Cycle Q Clear(g_c), s				24.6	0.0	23.4	20.0	0.0	0.0	0.0	23.4	38.7
Prop In Lane				0.51		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				487	0	424	400	2308	0	0	1310	612
V/C Ratio(X)				0.94	0.00	0.91	0.94	0.39	0.00	0.00	0.64	1.04
Avail Cap(c_a), veh/h				490	0	427	479	2308	0	0	1310	612
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				35.8	0.0	35.4	26.8	0.0	0.0	0.0	36.9	43.6
Incr Delay (d2), s/veh				26.0	0.0	22.3	3.4	0.0	0.0	0.0	2.4	46.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				15.8	0.0	12.9	9.9	0.0	0.0	0.0	11.4	24.8
LnGrp Delay(d),s/veh				61.8	0.0	57.7	30.2	0.0	0.0	0.0	39.3	89.6
LnGrp LOS				E		E	C	A			D	F
Approach Vol, veh/h					841			1281			1468	
Approach Delay, s/veh					59.9			8.8			61.0	
Approach LOS					E			A			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			26.5	42.7		30.8		69.2				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			27.0	34.0		27.0		65.0				
Max Q Clear Time (g_c+I1), s			22.0	40.7		26.6		2.0				
Green Ext Time (p_c), s			0.5	0.0		0.2		30.6				
Intersection Summary												
HCM 2010 Ctrl Delay			42.2									
HCM 2010 LOS			D									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			 	
Traffic Volume (veh/h)	742	10	711	0	0	0	0	508	383	570	471	0
Future Volume (veh/h)	742	10	711	0	0	0	0	508	383	570	471	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	798	11	765				0	546	412	613	506	0
Adj No. of Lanes	0	1	1				0	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	700	10	633				0	576	269	550	1840	0
Arrive On Green	0.40	0.40	0.40				0.00	0.06	0.06	0.10	0.17	0.00
Sat Flow, veh/h	1751	24	1583				0	3558	1583	1774	3632	0
Grp Volume(v), veh/h	809	0	765				0	546	412	613	506	0
Grp Sat Flow(s),veh/h/ln	1775	0	1583				0	1695	1583	1774	1770	0
Q Serve(g_s), s	40.0	0.0	40.0				0.0	16.1	17.0	31.0	12.4	0.0
Cycle Q Clear(g_c), s	40.0	0.0	40.0				0.0	16.1	17.0	31.0	12.4	0.0
Prop In Lane	0.99		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	710	0	633				0	576	269	550	1840	0
V/C Ratio(X)	1.14	0.00	1.21				0.00	0.95	1.53	1.11	0.27	0.00
Avail Cap(c_a), veh/h	710	0	633				0	576	269	550	1840	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.72	0.72	0.54	0.54	0.00
Uniform Delay (d), s/veh	30.0	0.0	30.0				0.0	46.7	47.2	44.9	25.0	0.0
Incr Delay (d2), s/veh	79.1	0.0	107.9				0.0	21.3	252.0	65.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	35.1	0.0	36.4				0.0	9.2	26.3	25.2	6.2	0.0
LnGrp Delay(d),s/veh	109.1	0.0	137.9				0.0	68.1	299.2	110.1	25.2	0.0
LnGrp LOS	F		F					E	F	F	C	
Approach Vol, veh/h		1574						958			1119	
Approach Delay, s/veh		123.1						167.5			71.7	
Approach LOS		F						F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		44.0		56.0			35.0	21.0				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		40.0		52.0			31.0	17.0				
Max Q Clear Time (g_c+I1), s		42.0		14.4			33.0	19.0				
Green Ext Time (p_c), s		0.0		11.9			0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			119.0									
HCM 2010 LOS			F									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	353	58	39	223	203	44	543	56	285	708	149
Future Volume (veh/h)	184	353	58	39	223	203	44	543	56	285	708	149
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	211	406	67	45	256	233	51	624	64	328	814	171
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	809	132	57	286	251	65	1108	113	356	1472	309
Arrive On Green	0.14	0.27	0.27	0.03	0.16	0.16	0.04	0.34	0.34	0.40	1.00	1.00
Sat Flow, veh/h	1774	3045	499	1774	1788	1568	1774	3242	332	1774	2913	612
Grp Volume(v), veh/h	211	235	238	45	253	236	51	340	348	328	495	490
Grp Sat Flow(s),veh/h/ln	1774	1770	1775	1774	1770	1586	1774	1770	1804	1774	1770	1755
Q Serve(g_s), s	11.6	11.2	11.4	2.5	14.0	14.7	2.9	15.7	15.7	17.6	0.0	0.0
Cycle Q Clear(g_c), s	11.6	11.2	11.4	2.5	14.0	14.7	2.9	15.7	15.7	17.6	0.0	0.0
Prop In Lane	1.00		0.28	1.00		0.99	1.00		0.18	1.00		0.35
Lane Grp Cap(c), veh/h	245	470	471	57	283	254	65	605	616	356	894	887
V/C Ratio(X)	0.86	0.50	0.51	0.79	0.89	0.93	0.78	0.56	0.56	0.92	0.55	0.55
Avail Cap(c_a), veh/h	302	478	479	106	283	254	124	605	616	444	894	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	0.69	0.69	0.69
Uniform Delay (d), s/veh	42.2	31.1	31.2	48.0	41.2	41.4	47.8	26.8	26.8	29.2	0.0	0.0
Incr Delay (d2), s/veh	18.8	0.8	0.8	20.5	28.2	37.7	17.3	3.6	3.6	16.5	1.7	1.7
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	7.0	5.6	5.7	1.6	9.0	9.1	1.7	8.3	8.4	10.0	0.4	0.4
LnGrp Delay(d),s/veh	61.0	31.9	32.0	68.5	69.4	79.2	65.1	30.4	30.4	45.8	1.7	1.7
LnGrp LOS	E	C	C	E	E	E	E	C	C	D	A	A
Approach Vol, veh/h		684			534			739			1313	
Approach Delay, s/veh		40.9			73.6			32.8			12.7	
Approach LOS		D			E			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+Rc), s	7.2	30.6	7.7	54.5	17.8	20.0	24.0	38.2				
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	6.0	27.0	7.0	44.0	17.0	16.0	25.0	26.0				
Max Q Clear Time (g_c+I1), s	4.5	13.4	4.9	2.0	13.6	16.7	19.6	17.7				
Green Ext Time (p_c), s	0.0	5.1	0.0	13.5	0.2	0.0	0.5	5.5				
Intersection Summary												
HCM 2010 Ctrl Delay			33.1									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	150	21	12	278	77	5	226	8	130	357	101
Future Volume (veh/h)	56	150	21	12	278	77	5	226	8	130	357	101
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	68	183	26	15	339	94	6	276	10	159	435	123
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	742	104	26	563	154	11	1168	42	202	1209	339
Arrive On Green	0.05	0.24	0.24	0.01	0.21	0.21	0.01	0.34	0.34	0.11	0.44	0.44
Sat Flow, veh/h	1774	3119	437	1774	2748	751	1774	3484	126	1774	2731	766
Grp Volume(v), veh/h	68	103	106	15	217	216	6	140	146	159	280	278
Grp Sat Flow(s),veh/h/ln	1774	1770	1786	1774	1770	1730	1774	1770	1841	1774	1770	1728
Q Serve(g_s), s	2.0	2.5	2.6	0.5	6.0	6.1	0.2	3.1	3.1	4.7	5.6	5.7
Cycle Q Clear(g_c), s	2.0	2.5	2.6	0.5	6.0	6.1	0.2	3.1	3.1	4.7	5.6	5.7
Prop In Lane	1.00		0.24	1.00		0.43	1.00		0.07	1.00		0.44
Lane Grp Cap(c), veh/h	85	421	425	26	363	355	11	593	617	202	783	765
V/C Ratio(X)	0.80	0.24	0.25	0.57	0.60	0.61	0.53	0.24	0.24	0.79	0.36	0.36
Avail Cap(c_a), veh/h	132	626	632	132	626	612	132	593	617	264	783	765
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	16.5	16.6	26.3	19.3	19.4	26.6	12.9	12.9	23.2	9.9	9.9
Incr Delay (d2), s/veh	17.0	0.3	0.3	17.6	1.6	1.7	33.5	0.9	0.9	11.1	1.3	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	1.4	1.3	1.3	0.3	3.0	3.1	0.2	1.6	1.7	2.9	3.0	3.0
LnGrp Delay(d),s/veh	42.3	16.8	16.9	43.8	20.9	21.1	60.1	13.8	13.8	34.3	11.2	11.3
LnGrp LOS	D	B	B	D	C	C	E	B	B	C	B	B
Approach Vol, veh/h		277			448			292			717	
Approach Delay, s/veh		23.1			21.8			14.7			16.3	
Approach LOS		C			C			B			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	4.8	16.8	4.3	27.8	6.6	15.0	10.1	22.0				
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	4.0	19.0	4.0	22.0	4.0	19.0	8.0	18.0				
Max Q Clear Time (g_c+I1), s	2.5	4.6	2.2	7.7	4.0	8.1	6.7	5.1				
Green Ext Time (p_c), s	0.0	3.3	0.0	4.0	0.0	2.9	0.0	3.8				
Intersection Summary												
HCM 2010 Ctrl Delay			18.6									
HCM 2010 LOS			B									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	1362	104	73	1093	72	84	304	36	95	350	204
Future Volume (veh/h)	135	1362	104	73	1093	72	84	304	36	95	350	204
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	148	1497	114	80	1201	79	92	334	40	104	385	224
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	1456	110	97	1334	88	118	708	84	121	486	279
Arrive On Green	0.10	0.44	0.44	0.05	0.40	0.40	0.07	0.22	0.22	0.07	0.22	0.22
Sat Flow, veh/h	1774	3335	253	1774	3372	222	1774	3187	379	1774	2168	1245
Grp Volume(v), veh/h	148	790	821	80	630	650	92	184	190	104	313	296
Grp Sat Flow(s),veh/h/ln	1774	1770	1818	1774	1770	1824	1774	1770	1796	1774	1770	1643
Q Serve(g_s), s	6.0	32.0	32.0	3.3	24.5	24.5	3.7	6.6	6.7	4.3	12.2	12.5
Cycle Q Clear(g_c), s	6.0	32.0	32.0	3.3	24.5	24.5	3.7	6.6	6.7	4.3	12.2	12.5
Prop In Lane	1.00		0.14	1.00		0.12	1.00		0.21	1.00		0.76
Lane Grp Cap(c), veh/h	169	773	794	97	700	722	118	393	399	121	396	368
V/C Ratio(X)	0.87	1.02	1.03	0.83	0.90	0.90	0.78	0.47	0.48	0.86	0.79	0.80
Avail Cap(c_a), veh/h	169	773	794	97	700	722	121	435	441	121	435	404
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	20.6	20.6	34.3	20.8	20.8	33.7	24.7	24.8	33.8	26.8	26.9
Incr Delay (d2), s/veh	36.0	38.3	40.9	41.8	14.6	14.5	26.9	0.9	0.9	42.4	8.8	10.4
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	4.7	23.7	24.9	2.7	14.7	15.2	2.7	3.3	3.4	3.5	6.9	6.7
LnGrp Delay(d),s/veh	68.7	58.9	61.5	76.1	35.4	35.3	60.6	25.6	25.7	76.1	35.6	37.3
LnGrp LOS	E	F	F	E	D	D	E	C	C	E	D	D
Approach Vol, veh/h		1759			1360			466			713	
Approach Delay, s/veh		60.9			37.7			32.5			42.2	
Approach LOS		E			D			C			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	8.0	36.0	8.9	20.4	11.0	33.0	9.0	20.3				
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	4.0	32.0	5.0	18.0	7.0	29.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	5.3	34.0	5.7	14.5	8.0	26.5	6.3	8.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	2.4	0.0	4.1				
Intersection Summary												
HCM 2010 Ctrl Delay			47.4									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1483	32	16	1227	12	16	9	8	3	10	20
Future Volume (veh/h)	35	1483	32	16	1227	12	16	9	8	3	10	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	36	1545	33	17	1278	12	17	9	8	3	10	21
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	435	2725	58	353	2763	26	163	22	20	96	26	54
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.05	0.05	0.05	0.05	0.05	0.05
Sat Flow, veh/h	426	3543	76	323	3593	34	814	431	383	148	506	1056
Grp Volume(v), veh/h	36	771	807	17	629	661	34	0	0	34	0	0
Grp Sat Flow(s),veh/h/ln	426	1770	1849	323	1770	1857	1628	0	0	1710	0	0
Q Serve(g_s), s	1.5	7.9	8.0	1.0	5.7	5.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.1	7.9	8.0	9.0	5.7	5.7	0.8	0.0	0.0	0.8	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.02	0.50		0.24	0.09		0.62
Lane Grp Cap(c), veh/h	435	1361	1422	353	1361	1428	205	0	0	176	0	0
V/C Ratio(X)	0.08	0.57	0.57	0.05	0.46	0.46	0.17	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	481	1552	1622	388	1552	1629	745	0	0	754	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	3.1	2.1	2.1	3.9	1.8	1.8	20.4	0.0	0.0	20.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.1	0.2	0.2	0.4	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	0.2	3.8	4.0	0.1	2.7	2.8	0.4	0.0	0.0	0.4	0.0	0.0
LnGrp Delay(d),s/veh	3.2	2.5	2.5	4.0	2.1	2.1	20.8	0.0	0.0	20.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C			C		
Approach Vol, veh/h	1614			1307			34			34		
Approach Delay, s/veh	2.5			2.1			20.8			20.9		
Approach LOS	A			A			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	38.2		6.3		38.2		6.3					
Change Period (Y+Rc), s	4.0		4.0		4.0		4.0					
Max Green Setting (Gmax), s	39.0		18.0		39.0		18.0					
Max Q Clear Time (g_c+I1), s	10.0		2.8		11.0		2.8					
Green Ext Time (p_c), s	23.9		0.2		23.2		0.2					
Intersection Summary												
HCM 2010 Ctrl Delay	2.7											
HCM 2010 LOS	A											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	1260	86	163	991	87	92	306	111	82	340	63
Future Volume (veh/h)	86	1260	86	163	991	87	92	306	111	82	340	63
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	1432	98	185	1126	99	105	348	126	93	386	72
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	1448	99	201	1552	136	121	424	360	119	346	65
Arrive On Green	0.07	0.42	0.42	0.11	0.46	0.46	0.07	0.22	0.22	0.07	0.22	0.22
Sat Flow, veh/h	1737	3430	234	1810	3358	295	1810	1900	1615	1810	1558	291
Grp Volume(v), veh/h	98	751	779	185	605	620	105	348	126	93	0	458
Grp Sat Flow(s),veh/h/ln	1737	1805	1859	1810	1805	1848	1810	1900	1615	1810	0	1849
Q Serve(g_s), s	5.0	37.1	37.5	9.1	24.4	24.5	5.2	15.7	5.9	4.6	0.0	20.0
Cycle Q Clear(g_c), s	5.0	37.1	37.5	9.1	24.4	24.5	5.2	15.7	5.9	4.6	0.0	20.0
Prop In Lane	1.00		0.13	1.00		0.16	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	124	762	785	201	834	854	121	424	360	119	0	411
V/C Ratio(X)	0.79	0.99	0.99	0.92	0.73	0.73	0.87	0.82	0.35	0.78	0.00	1.11
Avail Cap(c_a), veh/h	154	762	785	201	834	854	121	424	360	121	0	411
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.1	25.7	25.9	39.6	19.6	19.6	41.6	33.2	29.5	41.4	0.0	35.0
Incr Delay (d2), s/veh	19.6	28.9	30.2	41.7	3.2	3.1	45.0	12.1	0.6	27.2	0.0	79.4
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	3.1	24.5	25.6	6.9	12.8	13.1	4.1	9.6	2.7	3.2	0.0	19.2
LnGrp Delay(d),s/veh	60.7	54.6	56.0	81.3	22.7	22.7	86.7	45.4	30.0	68.6	0.0	114.4
LnGrp LOS	E	D	E	F	C	C	F	D	C	E		F
Approach Vol, veh/h		1628			1410			579			551	
Approach Delay, s/veh		55.7			30.4			49.5			106.7	
Approach LOS		E			C			D			F	
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	14.0	42.0	10.0	24.0	10.4	45.6	9.9	24.1				
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	10.0	38.0	6.0	20.0	8.0	40.0	6.0	20.0				
Max Q Clear Time (g_c+I1), s	11.1	39.5	7.2	22.0	7.0	26.5	6.6	17.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	11.8	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			53.0									
HCM 2010 LOS			D									

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↱		↱	↑↑	↱	↱		
Traffic Volume (veh/h)	1251	130	71	1263	136	68		
Future Volume (veh/h)	1251	130	71	1263	136	68		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1331	138	76	1344	145	72		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1800	186	97	2473	221	197		
Arrive On Green	0.56	0.56	0.05	0.70	0.12	0.12		
Sat Flow, veh/h	3332	334	1774	3632	1774	1583		
Grp Volume(v), veh/h	724	745	76	1344	145	72		
Grp Sat Flow(s),veh/h/ln	1770	1804	1774	1770	1774	1583		
Q Serve(g_s), s	13.9	14.1	1.9	8.3	3.5	1.9		
Cycle Q Clear(g_c), s	13.9	14.1	1.9	8.3	3.5	1.9		
Prop In Lane		0.19	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	984	1003	97	2473	221	197		
V/C Ratio(X)	0.74	0.74	0.79	0.54	0.66	0.37		
Avail Cap(c_a), veh/h	1017	1037	157	2661	706	630		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	7.6	7.6	21.1	3.3	18.9	18.2		
Incr Delay (d2), s/veh	2.7	2.8	13.1	0.2	3.3	1.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.4	7.6	1.3	4.0	1.9	0.9		
LnGrp Delay(d),s/veh	10.3	10.4	34.3	3.5	22.2	19.3		
LnGrp LOS	B	B	C	A	C	B		
Approach Vol, veh/h	1469			1420	217			
Approach Delay, s/veh	10.4			5.2	21.2			
Approach LOS	B			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.5	29.1				35.6		9.6
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	26.0				34.0		18.0
Max Q Clear Time (g_c+I1), s	3.9	16.1				10.3		5.5
Green Ext Time (p_c), s	0.0	9.0				19.8		0.5
Intersection Summary								
HCM 2010 Ctrl Delay			8.7					
HCM 2010 LOS			A					

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	975	101	62	977	105	73	212	55	72	241	83
Future Volume (veh/h)	96	975	101	62	977	105	73	212	55	72	241	83
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	102	1037	107	66	1039	112	78	226	59	77	256	88
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	1273	131	84	1182	127	100	381	100	98	354	122
Arrive On Green	0.07	0.39	0.39	0.05	0.37	0.37	0.06	0.27	0.27	0.06	0.27	0.27
Sat Flow, veh/h	1774	3239	334	1774	3224	347	1774	1425	372	1774	1326	456
Grp Volume(v), veh/h	102	566	578	66	570	581	78	0	285	77	0	344
Grp Sat Flow(s),veh/h/ln	1774	1770	1804	1774	1770	1801	1774	0	1797	1774	0	1782
Q Serve(g_s), s	3.8	19.3	19.3	2.5	20.3	20.3	2.9	0.0	9.3	2.9	0.0	11.8
Cycle Q Clear(g_c), s	3.8	19.3	19.3	2.5	20.3	20.3	2.9	0.0	9.3	2.9	0.0	11.8
Prop In Lane	1.00		0.19	1.00		0.19	1.00		0.21	1.00		0.26
Lane Grp Cap(c), veh/h	130	695	709	84	649	660	100	0	481	98	0	475
V/C Ratio(X)	0.78	0.81	0.82	0.79	0.88	0.88	0.78	0.00	0.59	0.78	0.00	0.72
Avail Cap(c_a), veh/h	158	708	722	105	656	667	131	0	481	131	0	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.7	18.3	18.3	31.8	20.0	20.0	31.4	0.0	21.5	31.5	0.0	22.5
Incr Delay (d2), s/veh	18.6	7.2	7.1	26.2	12.9	12.8	19.7	0.0	5.3	19.4	0.0	9.2
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	2.5	10.7	10.9	1.8	12.1	12.4	2.0	0.0	5.3	1.9	0.0	7.0
LnGrp Delay(d),s/veh	49.4	25.5	25.4	58.0	32.9	32.8	51.2	0.0	26.8	50.9	0.0	31.7
LnGrp LOS	D	C	C	E	C	C	D		C	D		C
Approach Vol, veh/h		1246			1217			363			421	
Approach Delay, s/veh		27.4			34.2			32.0			35.2	
Approach LOS		C			C			C			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	7.2	30.5	7.8	22.0	9.0	28.7	7.7	22.0				
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	4.0	27.0	5.0	18.0	6.0	25.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	4.5	21.3	4.9	13.8	5.8	22.3	4.9	11.3				
Green Ext Time (p_c), s	0.0	4.9	0.0	1.4	0.0	2.4	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			31.5									
HCM 2010 LOS			C									

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	1	1	1	464	490	1
Future Vol, veh/h	1	1	1	464	490	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	1	573	605	1

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1181	606	0
Stage 1	606	-	-
Stage 2	575	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	210	497	972
Stage 1	545	-	-
Stage 2	563	-	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	210	497	972
Mov Cap-2 Maneuver	210	-	-
Stage 1	545	-	-
Stage 2	562	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	972	-	295	-	-
HCM Lane V/C Ratio	0.001	-	0.008	-	-
HCM Control Delay (s)	8.7	0	17.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

General Plan Buildout w/o Project - AM Peak Hour
1: Adams Street & Garfield Street

Synchro 9 Report
10/19/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	60	170	50	40	90	120	1260	30	60	1350	20
Future Volume (veh/h)	20	60	170	50	40	90	120	1260	30	60	1350	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	24	72	205	60	48	108	145	1518	36	72	1627	24
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	119	291	150	127	206	164	1775	42	92	1648	24
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.09	0.50	0.50	0.05	0.46	0.46
Sat Flow, veh/h	66	455	1112	302	487	789	1774	3534	84	1774	3570	53
Grp Volume(v), veh/h	301	0	0	216	0	0	145	759	795	72	805	846
Grp Sat Flow(s),veh/h/ln	1632	0	0	1579	0	0	1774	1770	1848	1774	1770	1853
Q Serve(g_s), s	2.5	0.0	0.0	0.0	0.0	0.0	5.3	24.3	24.4	2.6	29.2	29.4
Cycle Q Clear(g_c), s	10.7	0.0	0.0	7.1	0.0	0.0	5.3	24.3	24.4	2.6	29.2	29.4
Prop In Lane	0.08		0.68	0.28		0.50	1.00		0.05	1.00		0.03
Lane Grp Cap(c), veh/h	487	0	0	484	0	0	164	889	928	92	817	855
V/C Ratio(X)	0.62	0.00	0.00	0.45	0.00	0.00	0.89	0.85	0.86	0.79	0.99	0.99
Avail Cap(c_a), veh/h	487	0	0	484	0	0	164	889	928	136	817	855
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	0.00	1.00	0.00	0.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	0.0	20.3	0.0	0.0	29.2	14.1	14.1	30.5	17.3	17.3
Incr Delay (d2), s/veh	5.8	0.0	0.0	0.6	0.0	0.0	5.7	1.1	1.0	16.1	28.3	28.1
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	5.6	0.0	0.0	3.3	0.0	0.0	2.8	11.9	12.6	1.7	20.5	21.5
LnGrp Delay(d),s/veh	27.4	0.0	0.0	20.9	0.0	0.0	34.8	15.2	15.2	46.5	45.6	45.4
LnGrp LOS	C			C			C	B	B	D	D	D
Approach Vol, veh/h		301			216			1699			1723	
Approach Delay, s/veh		27.4			20.9			16.8			45.6	
Approach LOS		C			C			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.0	10.0	34.0		21.0	7.4	36.6				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		17.0	6.0	30.0		17.0	5.0	31.0				
Max Q Clear Time (g_c+I1), s		12.7	7.3	31.4		9.1	4.6	26.4				
Green Ext Time (p_c), s		1.3	0.0	0.0		2.1	0.0	4.4				
Intersection Summary												
HCM 2010 Ctrl Delay			30.4									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	890	240	150	580	380	490	840	330	380	960	120
Future Volume (veh/h)	140	890	240	150	580	380	490	840	330	380	960	120
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1885	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	159	1011	273	170	659	432	557	955	375	432	1091	136
Adj No. of Lanes	1	2	1	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	156	993	713	181	588	385	585	944	448	399	1030	128
Arrive On Green	0.09	0.28	0.28	0.10	0.28	0.28	0.17	0.27	0.27	0.22	0.32	0.32
Sat Flow, veh/h	1703	3610	1615	1810	2077	1359	3510	3539	1680	1774	3168	394
Grp Volume(v), veh/h	159	1011	273	170	568	523	557	955	375	432	609	618
Grp Sat Flow(s),veh/h/ln	1703	1805	1615	1810	1791	1645	1755	1770	1680	1774	1770	1793
Q Serve(g_s), s	11.0	33.0	13.6	11.2	34.0	34.0	18.9	32.0	25.3	27.0	39.0	39.0
Cycle Q Clear(g_c), s	11.0	33.0	13.6	11.2	34.0	34.0	18.9	32.0	25.3	27.0	39.0	39.0
Prop In Lane	1.00		1.00	1.00		0.83	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	156	993	713	181	507	466	585	944	448	399	575	583
V/C Ratio(X)	1.02	1.02	0.38	0.94	1.12	1.12	0.95	1.01	0.84	1.08	1.06	1.06
Avail Cap(c_a), veh/h	156	993	713	181	507	466	585	944	448	399	575	583
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)	0.24	0.24	0.24	0.56	0.56	0.56	0.51	0.51	0.51	0.09	0.09	0.09
Uniform Delay (d), s/veh	54.5	43.5	22.5	53.6	43.0	43.0	49.5	44.0	41.5	46.5	40.5	40.5
Incr Delay (d2), s/veh	39.9	18.8	0.4	34.6	68.5	70.4	16.4	23.9	7.1	41.8	30.6	31.7
Initial Q Delay(d3),s/veh	0.2	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	6.9	19.0	6.1	7.4	26.4	24.5	10.5	18.7	12.7	17.8	23.9	24.4
LnGrp Delay(d),s/veh	94.6	62.3	22.9	88.2	111.5	113.4	65.9	67.9	48.7	88.3	71.1	72.2
LnGrp LOS	F	F	C	F	F	F	E	F	D	F	F	F
Approach Vol, veh/h		1443			1261			1887			1659	
Approach Delay, s/veh		58.4			109.1			63.5			76.0	
Approach LOS		E			F			E			E	
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	16.0	37.0	24.0	43.0	15.0	38.0	31.0	36.0				
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	12.0	33.0	20.0	39.0	11.0	34.0	27.0	32.0				
Max Q Clear Time (g_c+I1), s	13.2	35.0	20.9	41.0	13.0	36.0	29.0	34.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			74.8									
HCM 2010 LOS			E									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	3	22	90	10	30	28	1310	20	91	1030	37
Future Volume (veh/h)	62	3	22	90	10	30	28	1310	20	91	1030	37
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1937	1900	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	75	4	27	108	12	36	34	1578	24	110	1241	45
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	18	50	197	19	47	43	2407	37	140	2539	92
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.02	0.67	0.67	0.08	0.73	0.73
Sat Flow, veh/h	1011	144	395	1073	151	367	1774	3569	54	1774	3484	126
Grp Volume(v), veh/h	106	0	0	156	0	0	34	782	820	110	630	656
Grp Sat Flow(s),veh/h/ln	1550	0	0	1591	0	0	1774	1770	1853	1774	1770	1840
Q Serve(g_s), s	0.0	0.0	0.0	3.0	0.0	0.0	1.9	25.8	25.9	6.1	15.0	15.0
Cycle Q Clear(g_c), s	6.2	0.0	0.0	9.3	0.0	0.0	1.9	25.8	25.9	6.1	15.0	15.0
Prop In Lane	0.71		0.25	0.69		0.23	1.00		0.03	1.00		0.07
Lane Grp Cap(c), veh/h	258	0	0	263	0	0	43	1193	1250	140	1289	1341
V/C Ratio(X)	0.41	0.00	0.00	0.59	0.00	0.00	0.78	0.66	0.66	0.79	0.49	0.49
Avail Cap(c_a), veh/h	514	0	0	523	0	0	408	1193	1250	355	1289	1341
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.21	0.21	0.21
Uniform Delay (d), s/veh	40.8	0.0	0.0	42.1	0.0	0.0	48.5	9.5	9.5	45.2	5.7	5.7
Incr Delay (d2), s/veh	1.0	0.0	0.0	2.1	0.0	0.0	25.7	2.8	2.7	2.1	0.3	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	2.8	0.0	0.0	4.3	0.0	0.0	1.2	13.3	13.9	3.1	7.3	7.6
LnGrp Delay(d),s/veh	41.8	0.0	0.0	44.2	0.0	0.0	74.3	12.3	12.2	47.3	6.0	6.0
LnGrp LOS	D			D			E	B	B	D	A	A
Approach Vol, veh/h		106			156			1636			1396	
Approach Delay, s/veh		41.8			44.2			13.6			9.2	
Approach LOS		D			D			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.7	6.4	76.9		16.7	11.9	71.4				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		30.0	23.0	35.0		30.0	20.0	38.0				
Max Q Clear Time (g_c+I1), s		8.2	3.9	17.0		11.3	8.1	27.9				
Green Ext Time (p_c), s		1.5	0.0	15.4		1.4	0.2	9.2				
Intersection Summary												
HCM 2010 Ctrl Delay			14.1									
HCM 2010 LOS			B									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	1830	20	0	1210
Future Vol, veh/h	0	10	1830	20	0	1210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	12	2205	24	0	1458
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	1114	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	177	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	177	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	26.8	0		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	- 177	-			
HCM Lane V/C Ratio	-	- 0.068	-			
HCM Control Delay (s)	-	- 26.8	-			
HCM Lane LOS	-	- D	-			
HCM 95th %tile Q(veh)	-	- 0.2	-			

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	330	1	570	260	1010	0	0	740	530
Future Volume (veh/h)	0	0	0	330	1	570	260	1010	0	0	740	530
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				398	217	543	313	1217	0	0	892	639
Adj No. of Lanes				0	1	1	2	3	0	0	3	1
Peak Hour Factor				0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				444	242	602	585	2747	0	0	1678	522
Arrive On Green				0.38	0.38	0.38	0.34	1.00	0.00	0.00	0.66	0.66
Sat Flow, veh/h				1168	637	1583	3442	5253	0	0	5253	1583
Grp Volume(v), veh/h				615	0	543	313	1217	0	0	892	639
Grp Sat Flow(s),veh/h/ln				1804	0	1583	1721	1695	0	0	1695	1583
Q Serve(g_s), s				32.1	0.0	32.4	7.3	0.0	0.0	0.0	9.2	33.0
Cycle Q Clear(g_c), s				32.1	0.0	32.4	7.3	0.0	0.0	0.0	9.2	33.0
Prop In Lane				0.65		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				685	0	602	585	2747	0	0	1678	523
V/C Ratio(X)				0.90	0.00	0.90	0.53	0.44	0.00	0.00	0.53	1.22
Avail Cap(c_a), veh/h				758	0	665	585	2747	0	0	1678	523
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.57	0.57	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				29.2	0.0	29.3	29.8	0.0	0.0	0.0	13.0	17.0
Incr Delay (d2), s/veh				12.7	0.0	14.8	0.5	0.3	0.0	0.0	1.2	116.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				18.3	0.0	16.5	3.5	0.1	0.0	0.0	4.3	30.9
LnGrp Delay(d),s/veh				41.8	0.0	44.1	30.3	0.3	0.0	0.0	14.2	133.6
LnGrp LOS				D		D	C	A			B	F
Approach Vol, veh/h					1158			1530			1531	
Approach Delay, s/veh					42.9			6.4			64.0	
Approach LOS					D			A			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			21.0	37.0		42.0		58.0				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			13.0	33.0		42.0		50.0				
Max Q Clear Time (g_c+I1), s			9.3	35.0		34.4		2.0				
Green Ext Time (p_c), s			2.6	0.0		3.6		12.4				
Intersection Summary												
HCM 2010 Ctrl Delay			37.3									
HCM 2010 LOS			D									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (veh/h)	450	1	570	0	0	0	0	660	450	280	810	0
Future Volume (veh/h)	450	1	570	0	0	0	0	660	450	280	810	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	479	1	606				0	702	479	298	862	0
Adj No. of Lanes	0	1	1				0	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	704	1	629				0	1014	474	325	2658	0
Arrive On Green	0.40	0.40	0.40				0.00	0.10	0.10	0.37	1.00	0.00
Sat Flow, veh/h	1771	4	1583				0	3558	1583	1774	5253	0
Grp Volume(v), veh/h	480	0	606				0	702	479	298	862	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1583	1774	1695	0
Q Serve(g_s), s	22.3	0.0	37.4				0.0	20.0	29.9	16.0	0.0	0.0
Cycle Q Clear(g_c), s	22.3	0.0	37.4				0.0	20.0	29.9	16.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	705	0	629				0	1014	474	325	2658	0
V/C Ratio(X)	0.68	0.00	0.96				0.00	0.69	1.01	0.92	0.32	0.00
Avail Cap(c_a), veh/h	710	0	633				0	1014	474	390	2658	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.59	0.59	0.87	0.87	0.00
Uniform Delay (d), s/veh	24.9	0.0	29.4				0.0	40.6	45.1	30.9	0.0	0.0
Incr Delay (d2), s/veh	2.6	0.0	26.7				0.0	2.3	34.4	21.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	0.0	21.0				0.0	9.8	17.6	9.7	0.1	0.0
LnGrp Delay(d),s/veh	27.5	0.0	56.1				0.0	42.9	79.5	52.1	0.3	0.0
LnGrp LOS	C		E					D	F	D	A	
Approach Vol, veh/h	1086						1181			1160		
Approach Delay, s/veh	43.5						57.8			13.6		
Approach LOS	D						E			B		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4				7	8				
Phs Duration (G+Y+Rc), s	43.7		56.3				22.3	33.9				
Change Period (Y+Rc), s	4.0		4.0				4.0	4.0				
Max Green Setting (Gmax), s	40.0		52.0				22.0	26.0				
Max Q Clear Time (g_c+I1), s	39.4		2.0				18.0	31.9				
Green Ext Time (p_c), s	0.4		21.4				0.3	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	38.3											
HCM 2010 LOS	D											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	690	70	60	200	140	30	700	50	530	1110	150
Future Volume (veh/h)	160	690	70	60	200	140	30	700	50	530	1110	150
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	176	758	77	66	220	154	33	769	55	582	1220	165
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	255	779	79	71	277	186	43	1080	77	598	2726	849
Arrive On Green	0.14	0.24	0.24	0.04	0.14	0.14	0.02	0.22	0.22	0.67	1.00	1.00
Sat Flow, veh/h	1774	3245	329	1774	2031	1361	1774	4847	345	1774	5085	1583
Grp Volume(v), veh/h	176	413	422	66	190	184	33	537	287	582	1220	165
Grp Sat Flow(s),veh/h/ln	1774	1770	1805	1774	1770	1623	1774	1695	1802	1774	1695	1583
Q Serve(g_s), s	9.4	23.2	23.2	3.7	10.4	11.0	1.8	14.6	14.7	31.1	0.0	0.0
Cycle Q Clear(g_c), s	9.4	23.2	23.2	3.7	10.4	11.0	1.8	14.6	14.7	31.1	0.0	0.0
Prop In Lane	1.00		0.18	1.00		0.84	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	255	425	433	71	242	221	43	755	402	598	2726	849
V/C Ratio(X)	0.69	0.97	0.97	0.93	0.79	0.83	0.77	0.71	0.72	0.97	0.45	0.19
Avail Cap(c_a), veh/h	255	425	433	71	283	260	106	755	402	639	2726	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.24	0.24	0.24	0.81	0.81	0.81
Uniform Delay (d), s/veh	40.7	37.7	37.7	47.9	41.8	42.0	48.5	35.9	35.9	15.9	0.0	0.0
Incr Delay (d2), s/veh	7.7	36.5	36.3	82.8	12.0	17.4	7.0	1.4	2.6	24.8	0.4	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	5.2	15.6	15.8	3.4	5.9	6.0	1.0	7.0	7.6	18.7	0.1	0.1
LnGrp Delay(d),s/veh	48.5	74.2	74.0	130.6	53.8	59.4	55.5	37.3	38.5	40.7	0.4	0.4
LnGrp LOS	D	E	E	F	D	E	E	D	D	D	A	A
Approach Vol, veh/h	1011				440				857			
Approach Delay, s/veh	69.6				67.7				38.4			
Approach LOS	E				E				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	8.0	28.0	6.4	57.6	18.3	17.7	37.7	26.3				
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	4.0	24.0	6.0	50.0	12.0	16.0	36.0	20.0				
Max Q Clear Time (g_c+I1), s	5.7	25.2	3.8	2.0	11.4	13.0	33.1	16.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	22.2	0.3	0.6	0.6	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay	36.8											
HCM 2010 LOS	D											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	270	30	10	270	180	30	990	30	180	370	90
Future Volume (veh/h)	190	270	30	10	270	180	30	990	30	180	370	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	241	342	38	13	342	228	38	1253	38	228	468	114
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	282	1138	126	23	426	279	52	1328	40	268	1575	373
Arrive On Green	0.16	0.35	0.35	0.01	0.21	0.21	0.03	0.26	0.26	0.15	0.38	0.38
Sat Flow, veh/h	1774	3215	355	1774	2053	1343	1774	5072	154	1774	4108	973
Grp Volume(v), veh/h	241	187	193	13	294	276	38	837	454	228	384	198
Grp Sat Flow(s),veh/h/ln	1774	1770	1800	1774	1770	1626	1774	1695	1836	1774	1695	1691
Q Serve(g_s), s	9.6	5.5	5.6	0.5	11.5	11.8	1.5	17.6	17.6	9.1	5.7	5.9
Cycle Q Clear(g_c), s	9.6	5.5	5.6	0.5	11.5	11.8	1.5	17.6	17.6	9.1	5.7	5.9
Prop In Lane	1.00		0.20	1.00		0.83	1.00		0.08	1.00		0.58
Lane Grp Cap(c), veh/h	282	626	637	23	367	338	52	888	481	268	1300	648
V/C Ratio(X)	0.85	0.30	0.30	0.58	0.80	0.82	0.73	0.94	0.94	0.85	0.30	0.31
Avail Cap(c_a), veh/h	293	626	637	98	415	381	122	888	481	269	1300	648
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	16.9	17.0	35.6	27.3	27.4	34.9	26.3	26.3	30.0	15.6	15.6
Incr Delay (d2), s/veh	20.6	0.3	0.3	21.2	9.6	11.9	17.3	19.3	29.2	21.9	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	2.7	2.8	0.4	6.5	6.4	1.0	10.5	12.7	6.1	2.8	3.0
LnGrp Delay(d),s/veh	50.3	17.2	17.2	56.8	37.0	39.3	52.2	45.5	55.5	51.9	16.1	16.8
LnGrp LOS	D	B	B	E	D	D	D	D	E	D	B	B
Approach Vol, veh/h		621			583			1329			810	
Approach Delay, s/veh		30.0			38.5			49.1			26.4	
Approach LOS		C			D			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+Rc), s	4.9	29.7	6.1	31.8	15.5	19.1	15.0	23.0				
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	4.0	25.0	5.0	25.0	12.0	17.0	11.0	19.0				
Max Q Clear Time (g_c+I1), s	2.5	7.6	3.5	7.9	11.6	13.8	11.1	19.6				
Green Ext Time (p_c), s	0.0	5.6	0.0	10.5	0.0	1.3	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			38.2									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	1470	130	100	950	170	120	450	140	160	290	150
Future Volume (veh/h)	180	1470	130	100	950	170	120	450	140	160	290	150
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	217	1771	157	120	1145	205	145	542	169	193	349	181
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	1729	151	118	1365	243	163	466	145	177	416	212
Arrive On Green	0.14	0.52	0.52	0.07	0.45	0.45	0.09	0.17	0.17	0.10	0.18	0.18
Sat Flow, veh/h	1774	3294	288	1774	3003	535	1774	2660	826	1774	2271	1157
Grp Volume(v), veh/h	217	940	988	120	673	677	145	360	351	193	271	259
Grp Sat Flow(s),veh/h/ln	1774	1770	1812	1774	1770	1768	1774	1770	1717	1774	1770	1659
Q Serve(g_s), s	14.4	63.0	63.0	8.0	40.1	40.6	9.7	21.0	21.0	12.0	17.7	18.2
Cycle Q Clear(g_c), s	14.4	63.0	63.0	8.0	40.1	40.6	9.7	21.0	21.0	12.0	17.7	18.2
Prop In Lane	1.00		0.16	1.00		0.30	1.00		0.48	1.00		0.70
Lane Grp Cap(c), veh/h	243	929	951	118	804	804	163	310	300	177	324	304
V/C Ratio(X)	0.89	1.01	1.04	1.01	0.84	0.84	0.89	1.16	1.17	1.09	0.83	0.85
Avail Cap(c_a), veh/h	251	929	951	118	804	804	163	310	300	177	324	304
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	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	28.5	28.5	56.0	28.8	28.9	53.9	49.5	49.5	54.0	47.2	47.4
Incr Delay (d2), s/veh	29.8	32.4	39.7	76.6	8.0	8.3	41.1	102.6	105.7	93.0	16.8	20.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	38.8	41.7	6.4	21.4	21.6	6.6	19.1	18.8	10.4	10.2	10.0
LnGrp Delay(d),s/veh	80.7	60.9	68.2	132.7	36.8	37.2	95.0	152.1	155.2	147.0	64.1	67.7
LnGrp LOS	F	F	F	F	D	D	F	F	F	F	E	E
Approach Vol, veh/h	2145			1470				856			723	
Approach Delay, s/veh	66.3			44.8				143.7			87.5	
Approach LOS	E			D				F			F	
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	12.0	67.0	15.0	26.0	20.5	58.5	16.0	25.0				
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	8.0	63.0	11.0	22.0	17.0	54.0	12.0	21.0				
Max Q Clear Time (g_c+I1), s	10.0	65.0	11.7	20.2	16.4	42.6	14.0	23.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	6.7	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	75.9											
HCM 2010 LOS	E											

General Plan Buildout w/o Project - AM Peak Hour
11: Overland Street & Magnolia Avenue

Synchro 9 Report
10/19/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1610	240	150	1100	80	2	30	10	70	200	140
Future Volume (veh/h)	80	1610	240	150	1100	80	2	30	10	70	200	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	90	1809	270	169	1236	90	2	34	11	79	225	157
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	1956	285	127	2111	153	62	336	104	120	218	141
Arrive On Green	0.63	0.63	0.63	0.63	0.63	0.63	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	412	3101	452	198	3346	243	18	1364	422	223	884	572
Grp Volume(v), veh/h	90	1013	1066	169	653	673	47	0	0	461	0	0
Grp Sat Flow(s),veh/h/ln	412	1770	1783	198	1770	1820	1805	0	0	1679	0	0
Q Serve(g_s), s	10.7	32.1	35.7	5.3	14.0	14.1	0.0	0.0	0.0	12.5	0.0	0.0
Cycle Q Clear(g_c), s	24.7	32.1	35.7	41.0	14.0	14.1	1.3	0.0	0.0	16.0	0.0	0.0
Prop In Lane	1.00		0.25	1.00		0.13	0.04		0.23	0.17		0.34
Lane Grp Cap(c), veh/h	281	1116	1125	127	1116	1148	502	0	0	478	0	0
V/C Ratio(X)	0.32	0.91	0.95	1.33	0.58	0.59	0.09	0.00	0.00	0.96	0.00	0.00
Avail Cap(c_a), veh/h	281	1116	1125	127	1116	1148	502	0	0	478	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)	0.09	0.09	0.09	0.59	0.59	0.59	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.3	10.4	11.0	32.2	7.0	7.0	19.0	0.0	0.0	25.3	0.0	0.0
Incr Delay (d2), s/veh	0.3	1.4	2.4	177.1	0.5	0.5	0.1	0.0	0.0	32.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	15.6	17.9	8.5	6.9	7.1	0.7	0.0	0.0	12.5	0.0	0.0
LnGrp Delay(d),s/veh	14.6	11.7	13.4	209.3	7.5	7.5	19.0	0.0	0.0	57.3	0.0	0.0
LnGrp LOS	B	B	B	F	A	A	B			E		
Approach Vol, veh/h	2169			1495			47			461		
Approach Delay, s/veh	12.7			30.3			19.0			57.3		
Approach LOS	B			C			B			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2			4		6		8				
Phs Duration (G+Y+Rc), s	45.0			20.0		45.0		20.0				
Change Period (Y+Rc), s	4.0			4.0		4.0		4.0				
Max Green Setting (Gmax), s	41.0			16.0		41.0		16.0				
Max Q Clear Time (g_c+I1), s	37.7			18.0		43.0		3.3				
Green Ext Time (p_c), s	3.3			0.0		0.0		2.7				
Intersection Summary												
HCM 2010 Ctrl Delay			24.0									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	1260	140	130	600	70	220	240	190	120	280	80
Future Volume (veh/h)	120	1260	140	130	600	70	220	240	190	120	280	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	1636	182	169	779	91	286	312	247	156	364	104
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	181	1524	167	142	1429	167	246	462	393	180	295	84
Arrive On Green	0.10	0.46	0.46	0.08	0.44	0.44	0.14	0.24	0.24	0.10	0.21	0.21
Sat Flow, veh/h	1737	3281	360	1810	3257	380	1810	1900	1615	1810	1422	406
Grp Volume(v), veh/h	156	890	928	169	432	438	286	312	247	156	0	468
Grp Sat Flow(s),veh/h/ln	1737	1805	1836	1810	1805	1833	1810	1900	1615	1810	0	1828
Q Serve(g_s), s	12.4	65.0	65.0	11.0	24.7	24.7	19.0	20.8	19.1	11.9	0.0	29.0
Cycle Q Clear(g_c), s	12.4	65.0	65.0	11.0	24.7	24.7	19.0	20.8	19.1	11.9	0.0	29.0
Prop In Lane	1.00		0.20	1.00		0.21	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	181	838	853	142	792	804	246	462	393	180	0	379
V/C Ratio(X)	0.86	1.06	1.09	1.19	0.54	0.55	1.16	0.68	0.63	0.86	0.00	1.24
Avail Cap(c_a), veh/h	285	838	853	142	792	804	246	462	393	220	0	379
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	61.7	37.5	37.5	64.5	29.0	29.0	60.5	48.0	47.3	62.1	0.0	55.5
Incr Delay (d2), s/veh	14.6	48.7	57.9	135.0	0.8	0.8	109.2	3.9	3.2	24.7	0.0	126.9
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	6.7	43.7	46.6	10.8	12.4	12.6	16.9	11.4	8.9	7.2	0.0	28.0
LnGrp Delay(d),s/veh	76.3	86.2	95.4	199.5	29.8	29.8	169.7	51.9	50.5	86.8	0.0	182.4
LnGrp LOS	E	F	F	F	C	C	F	D	D	F		F
Approach Vol, veh/h		1974			1039			845			624	
Approach Delay, s/veh		89.7			57.4			91.4			158.5	
Approach LOS		F			E			F			F	
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	15.0	69.0	23.0	33.0	18.6	65.4	18.0	38.0				
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	11.0	65.0	19.0	29.0	23.0	53.0	17.0	31.0				
Max Q Clear Time (g_c+I1), s	13.0	67.0	21.0	31.0	14.4	26.7	13.9	22.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	21.0	0.1	3.5				
Intersection Summary												
HCM 2010 Ctrl Delay				92.1								
HCM 2010 LOS				F								

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↱		↱	↑↑	↱	↱		
Traffic Volume (veh/h)	1200	184	311	910	33	80		
Future Volume (veh/h)	1200	184	311	910	33	80		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1333	204	346	1011	37	89		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	1669	253	396	2886	147	131		
Arrive On Green	0.54	0.54	0.22	0.82	0.08	0.08		
Sat Flow, veh/h	3175	468	1774	3632	1774	1583		
Grp Volume(v), veh/h	760	777	346	1011	37	89		
Grp Sat Flow(s),veh/h/ln	1770	1780	1774	1770	1774	1583		
Q Serve(g_s), s	27.2	27.9	14.8	5.8	1.5	4.3		
Cycle Q Clear(g_c), s	27.2	27.9	14.8	5.8	1.5	4.3		
Prop In Lane		0.26	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	958	964	396	2886	147	131		
V/C Ratio(X)	0.79	0.81	0.87	0.35	0.25	0.68		
Avail Cap(c_a), veh/h	1012	1019	609	3420	361	322		
HCM Platoon Ratio	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		
Uniform Delay (d), s/veh	14.5	14.7	29.5	1.9	33.8	35.1		
Incr Delay (d2), s/veh	4.2	4.6	8.8	0.1	0.9	6.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	14.2	14.8	8.2	2.8	0.8	2.1		
LnGrp Delay(d),s/veh	18.7	19.3	38.3	1.9	34.7	41.1		
LnGrp LOS	B	B	D	A	C	D		
Approach Vol, veh/h	1537			1357	126			
Approach Delay, s/veh	19.0			11.2	39.2			
Approach LOS	B			B	D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	21.6	46.6				68.1		10.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	27.0	45.0				76.0		16.0
Max Q Clear Time (g_c+I1), s	16.8	29.9				7.8		6.3
Green Ext Time (p_c), s	0.8	12.7				37.4		0.2
Intersection Summary								
HCM 2010 Ctrl Delay			16.3					
HCM 2010 LOS			B					

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1280	90	90	790	150	120	140	90	150	140	120
Future Volume (veh/h)	80	1280	90	90	790	150	120	140	90	150	140	120
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	100	1600	112	112	988	188	150	175	112	188	175	150
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	1567	109	118	1149	218	158	189	121	197	185	159
Arrive On Green	0.15	0.47	0.47	0.07	0.39	0.39	0.09	0.18	0.18	0.11	0.20	0.20
Sat Flow, veh/h	1774	3358	233	1774	2969	564	1774	1063	680	1774	927	795
Grp Volume(v), veh/h	100	838	874	112	588	588	150	0	287	188	0	325
Grp Sat Flow(s),veh/h/ln	1774	1770	1822	1774	1770	1763	1774	0	1743	1774	0	1722
Q Serve(g_s), s	4.6	42.0	42.0	5.7	27.5	27.6	7.6	0.0	14.6	9.5	0.0	16.7
Cycle Q Clear(g_c), s	4.6	42.0	42.0	5.7	27.5	27.6	7.6	0.0	14.6	9.5	0.0	16.7
Prop In Lane	1.00		0.13	1.00		0.32	1.00		0.39	1.00		0.46
Lane Grp Cap(c), veh/h	259	826	850	118	685	683	158	0	310	197	0	344
V/C Ratio(X)	0.39	1.01	1.03	0.95	0.86	0.86	0.95	0.00	0.93	0.95	0.00	0.94
Avail Cap(c_a), veh/h	259	826	850	118	786	784	158	0	310	197	0	344
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.8	24.0	24.0	41.8	25.3	25.4	40.8	0.0	36.4	39.8	0.0	35.5
Incr Delay (d2), s/veh	0.9	35.1	38.2	66.1	8.5	8.7	57.1	0.0	35.4	50.8	0.0	36.1
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	2.3	28.5	30.0	4.9	15.0	15.0	6.2	0.0	10.1	7.4	0.0	11.4
LnGrp Delay(d),s/veh	35.7	59.1	62.2	107.9	33.9	34.1	97.9	0.0	71.8	90.5	0.0	71.6
LnGrp LOS	D	F	F	F	C	C	F		E	F		E
Approach Vol, veh/h		1812			1288			437			513	
Approach Delay, s/veh		59.3			40.4			80.7			78.5	
Approach LOS		E			D			F			E	
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	10.0	46.0	12.0	22.0	17.2	38.8	14.0	20.0				
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	6.0	42.0	8.0	18.0	8.0	40.0	10.0	16.0				
Max Q Clear Time (g_c+I1), s	7.7	44.0	9.6	18.7	6.6	29.6	11.5	16.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	5.3	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			58.0									
HCM 2010 LOS			E									

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	500	440	1
Future Vol, veh/h	1	1	1	500	440	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	1	617	543	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1164	544	544	0	-	0
Stage 1	544	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	215	539	1025	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	215	539	1025	-	-	-
Mov Cap-2 Maneuver	215	-	-	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	535	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1025	-	307	-	-
HCM Lane V/C Ratio	0.001	-	0.008	-	-
HCM Control Delay (s)	8.5	0	16.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	10	50	40	0	20	50	1180	50	30	900	20
Future Volume (veh/h)	30	10	50	40	0	20	50	1180	50	30	900	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	31	10	51	41	0	20	51	1204	51	31	918	20
Adj No. of Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	23	89	271	6	53	79	2671	113	53	2658	58
Arrive On Green	0.10	0.10	0.10	0.10	0.00	0.10	0.04	0.53	0.53	0.03	0.52	0.52
Sat Flow, veh/h	487	233	896	1024	59	528	1774	5004	212	1774	5122	111
Grp Volume(v), veh/h	92	0	0	61	0	0	51	816	439	31	607	331
Grp Sat Flow(s),veh/h/ln	1616	0	0	1611	0	0	1774	1695	1825	1774	1695	1843
Q Serve(g_s), s	0.7	0.0	0.0	0.0	0.0	0.0	1.0	5.3	5.3	0.6	3.7	3.7
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.1	0.0	0.0	1.0	5.3	5.3	0.6	3.7	3.7
Prop In Lane	0.34		0.55	0.67		0.33	1.00		0.12	1.00		0.06
Lane Grp Cap(c), veh/h	296	0	0	329	0	0	79	1809	974	53	1759	956
V/C Ratio(X)	0.31	0.00	0.00	0.19	0.00	0.00	0.65	0.45	0.45	0.59	0.35	0.35
Avail Cap(c_a), veh/h	1006	0	0	980	0	0	249	1809	974	199	1759	956
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	0.0	14.9	0.0	0.0	16.7	5.1	5.1	17.1	5.0	5.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.0	0.0	8.5	0.8	1.5	10.0	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.6	0.0	0.0	0.7	2.6	3.0	0.4	1.8	2.1
LnGrp Delay(d),s/veh	15.8	0.0	0.0	15.2	0.0	0.0	25.3	5.9	6.6	27.1	5.6	6.0
LnGrp LOS	B			B			C	A	A	C	A	A
Approach Vol, veh/h		92			61			1306			969	
Approach Delay, s/veh		15.8			15.2			6.9			6.4	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.5	5.6	22.5		7.5	5.1	23.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		20.0	5.0	18.0		20.0	4.0	19.0				
Max Q Clear Time (g_c+I1), s		3.8	3.0	5.7		3.1	2.6	7.3				
Green Ext Time (p_c), s		0.7	0.0	9.3		0.7	0.0	8.9				
Intersection Summary												
HCM 2010 Ctrl Delay			7.2									
HCM 2010 LOS			A									

General Plan Buildout w/o Project - PM Peak Hour
2: Adams Street & Magnolia Avenue

Synchro 9 Report
10/19/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	1320	510	180	1320	210	600	630	210	280	540	140
Future Volume (veh/h)	200	1320	510	180	1320	210	600	630	210	280	540	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1895	1900	1900	1872	1976	1863	1863	1976
Adj Flow Rate, veh/h	204	1347	520	184	1347	214	612	643	214	286	551	143
Adj No. of Lanes	1	2	1	1	2	0	2	3	0	1	3	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	2	2	2	2
Cap, veh/h	210	1581	1005	210	1343	211	648	616	201	287	560	142
Arrive On Green	0.12	0.44	0.44	0.12	0.43	0.43	0.18	0.16	0.16	0.16	0.14	0.14
Sat Flow, veh/h	1703	3610	1615	1810	3118	491	3510	3813	1246	1774	4045	1026
Grp Volume(v), veh/h	204	1347	520	184	772	789	612	573	284	286	460	234
Grp Sat Flow(s),veh/h/ln	1703	1805	1615	1810	1800	1808	1755	1703	1652	1774	1695	1682
Q Serve(g_s), s	15.5	43.5	23.3	13.0	55.6	56.0	22.4	21.0	21.0	20.9	17.6	18.0
Cycle Q Clear(g_c), s	15.5	43.5	23.3	13.0	55.6	56.0	22.4	21.0	21.0	20.9	17.6	18.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.75	1.00		0.61
Lane Grp Cap(c), veh/h	210	1581	1005	210	775	779	648	550	267	287	469	233
V/C Ratio(X)	0.97	0.85	0.52	0.88	1.00	1.01	0.94	1.04	1.06	1.00	0.98	1.01
Avail Cap(c_a), veh/h	210	1581	1005	237	775	779	648	550	267	287	469	233
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)	0.09	0.09	0.09	0.23	0.23	0.23	0.72	0.72	0.72	0.97	0.97	0.97
Uniform Delay (d), s/veh	56.8	32.8	13.7	56.5	36.9	37.0	52.3	54.5	54.5	54.5	55.8	56.0
Incr Delay (d2), s/veh	13.0	0.6	0.2	8.1	14.6	18.8	18.0	43.9	64.4	51.8	35.5	59.8
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	8.1	21.8	10.3	7.0	30.6	32.0	12.5	13.2	14.3	14.4	10.6	12.2
LnGrp Delay(d),s/veh	69.8	33.4	13.8	64.6	51.5	55.8	70.4	98.4	118.9	106.3	91.3	115.8
LnGrp LOS	E	C	B	E	D	F	E	F	F	F	F	F
Approach Vol, veh/h	2071		1745				1469			980		
Approach Delay, s/veh	32.0		54.8				90.7			101.5		
Approach LOS	C		D				F			F		
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	19.1	60.9	28.0	22.0	20.0	60.0	25.0	25.0				
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	17.0	55.0	24.0	18.0	16.0	56.0	21.0	21.0				
Max Q Clear Time (g_c+I1), s	15.0	45.5	24.4	20.0	17.5	58.0	22.9	23.0				
Green Ext Time (p_c), s	0.1	9.0	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	63.0											
HCM 2010 LOS	E											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	8	73	50	10	30	38	1190	30	10	1060	81
Future Volume (veh/h)	107	8	73	50	10	30	38	1190	30	10	1060	81
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1937	1900	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	115	9	78	54	11	32	41	1280	32	11	1140	87
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	19	97	183	47	79	53	2423	61	19	2225	170
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.01	0.23	0.23	0.01	0.67	0.67
Sat Flow, veh/h	884	123	633	739	310	516	1774	3529	88	1774	3333	254
Grp Volume(v), veh/h	202	0	0	97	0	0	41	642	670	11	605	622
Grp Sat Flow(s),veh/h/ln	1639	0	0	1566	0	0	1774	1770	1847	1774	1770	1818
Q Serve(g_s), s	5.0	0.0	0.0	0.0	0.0	0.0	1.8	25.5	25.5	0.5	13.8	13.8
Cycle Q Clear(g_c), s	9.3	0.0	0.0	4.2	0.0	0.0	1.8	25.5	25.5	0.5	13.8	13.8
Prop In Lane	0.57		0.39	0.56		0.33	1.00		0.05	1.00		0.14
Lane Grp Cap(c), veh/h	321	0	0	309	0	0	53	1215	1268	19	1181	1214
V/C Ratio(X)	0.63	0.00	0.00	0.31	0.00	0.00	0.77	0.53	0.53	0.57	0.51	0.51
Avail Cap(c_a), veh/h	430	0	0	417	0	0	355	1215	1268	355	1181	1214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.54	0.54	0.54
Uniform Delay (d), s/veh	32.4	0.0	0.0	30.4	0.0	0.0	39.3	19.5	19.6	39.4	6.7	6.7
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.6	0.0	0.0	20.8	1.6	1.6	13.6	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	0.0	2.0	0.0	0.0	1.2	13.1	13.6	0.3	6.8	7.0
LnGrp Delay(d),s/veh	34.5	0.0	0.0	31.0	0.0	0.0	60.1	21.2	21.1	53.0	7.6	7.6
LnGrp LOS	C			C			E	C	C	D	A	A
Approach Vol, veh/h		202			97			1353			1238	
Approach Delay, s/veh		34.5			31.0			22.3			8.0	
Approach LOS		C			C			C			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.2	6.4	57.4		16.2	4.9	58.9				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		18.0	16.0	34.0		18.0	16.0	34.0				
Max Q Clear Time (g_c+I1), s		11.3	3.8	15.8		6.2	2.5	27.5				
Green Ext Time (p_c), s		0.9	0.0	14.1		1.4	0.0	5.7				
Intersection Summary												
HCM 2010 Ctrl Delay			17.3									
HCM 2010 LOS			B									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	1530	50	0	1430
Future Vol, veh/h	0	10	1530	50	0	1430
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	12	1843	60	0	1723
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	952	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	226	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	226	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	21.8		0		0	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	- 226	-			
HCM Lane V/C Ratio	-	- 0.053	-			
HCM Control Delay (s)	-	- 21.8	-			
HCM Lane LOS	-	- C	-			
HCM 95th %tile Q(veh)	-	- 0.2	-			

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	210	0	420	430	940	0	0	880	610
Future Volume (veh/h)	0	0	0	210	0	420	430	940	0	0	880	610
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				216	163	324	443	969	0	0	907	629
Adj No. of Lanes				0	1	1	2	3	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				250	188	383	524	3346	0	0	2317	721
Arrive On Green				0.24	0.24	0.24	0.30	1.00	0.00	0.00	0.91	0.91
Sat Flow, veh/h				1032	779	1583	3442	5253	0	0	5253	1583
Grp Volume(v), veh/h				379	0	324	443	969	0	0	907	629
Grp Sat Flow(s),veh/h/ln				1811	0	1583	1721	1695	0	0	1695	1583
Q Serve(g_s), s				16.0	0.0	15.6	9.6	0.0	0.0	0.0	2.0	13.7
Cycle Q Clear(g_c), s				16.0	0.0	15.6	9.6	0.0	0.0	0.0	2.0	13.7
Prop In Lane				0.57		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				438	0	383	524	3346	0	0	2317	721
V/C Ratio(X)				0.86	0.00	0.85	0.84	0.29	0.00	0.00	0.39	0.87
Avail Cap(c_a), veh/h				498	0	435	645	3346	0	0	2317	721
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.66	0.66	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				29.1	0.0	28.9	26.9	0.0	0.0	0.0	2.0	2.5
Incr Delay (d2), s/veh				13.5	0.0	13.0	5.8	0.1	0.0	0.0	0.5	13.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.6	0.0	8.2	5.0	0.0	0.0	0.0	0.9	7.3
LnGrp Delay(d),s/veh				42.5	0.0	41.9	32.7	0.1	0.0	0.0	2.5	16.3
LnGrp LOS				D		D	C	A			A	B
Approach Vol, veh/h					703			1412			1536	
Approach Delay, s/veh					42.2			10.4			8.1	
Approach LOS					D			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			16.2	40.5		23.4		56.6				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			15.0	31.0		22.0		50.0				
Max Q Clear Time (g_c+I1), s			11.6	15.7		18.0		2.0				
Green Ext Time (p_c), s			0.6	11.7		1.3		24.9				
Intersection Summary												
HCM 2010 Ctrl Delay			15.6									
HCM 2010 LOS			B									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (veh/h)	620	10	660	0	0	0	0	290	380	500	550	0
Future Volume (veh/h)	620	10	660	0	0	0	0	290	380	500	550	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	667	11	710				0	312	409	538	591	0
Adj No. of Lanes	0	1	1				0	3	0	1	3	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	611	10	554				0	678	317	532	2797	0
Arrive On Green	0.35	0.35	0.35				0.00	0.07	0.07	0.10	0.18	0.00
Sat Flow, veh/h	1747	29	1583				0	3558	1583	1774	5253	0
Grp Volume(v), veh/h	678	0	710				0	312	409	538	591	0
Grp Sat Flow(s),veh/h/ln	1775	0	1583				0	1695	1583	1774	1695	0
Q Serve(g_s), s	28.0	0.0	28.0				0.0	7.1	16.0	24.0	7.9	0.0
Cycle Q Clear(g_c), s	28.0	0.0	28.0				0.0	7.1	16.0	24.0	7.9	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	621	0	554				0	678	317	532	2797	0
V/C Ratio(X)	1.09	0.00	1.28				0.00	0.46	1.29	1.01	0.21	0.00
Avail Cap(c_a), veh/h	621	0	554				0	678	317	532	2797	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.32	0.32	0.92	0.92	0.00
Uniform Delay (d), s/veh	26.0	0.0	26.0				0.0	33.2	37.4	36.0	18.0	0.0
Incr Delay (d2), s/veh	63.4	0.0	139.9				0.0	0.7	138.9	40.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.6	0.0	33.7				0.0	3.4	19.2	17.7	3.8	0.0
LnGrp Delay(d),s/veh	89.4	0.0	165.9				0.0	33.9	176.2	76.2	18.1	0.0
LnGrp LOS	F		F					C	F	F	B	
Approach Vol, veh/h	1388						721			1129		
Approach Delay, s/veh	128.6						114.6			45.8		
Approach LOS	F						F			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4				7	8				
Phs Duration (G+Y+Rc), s	32.0		48.0				28.0	20.0				
Change Period (Y+Rc), s	4.0		4.0				4.0	4.0				
Max Green Setting (Gmax), s	28.0		44.0				24.0	16.0				
Max Q Clear Time (g_c+I1), s	30.0		9.9				26.0	18.0				
Green Ext Time (p_c), s	0.0		10.1				0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	96.6											
HCM 2010 LOS	F											

																
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR				
Lane Configurations																
Traffic Volume (veh/h)	260	530	90	60	330	280	60	670	80	400	960	210				
Future Volume (veh/h)	260	530	90	60	330	280	60	670	80	400	960	210				
Number	5	2	12	1	6	16	3	8	18	7	4	14				
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00				
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863				
Adj Flow Rate, veh/h	299	609	103	69	379	322	69	770	92	460	1103	241				
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	1				
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87				
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2				
Cap, veh/h	288	948	160	88	365	307	89	922	109	421	1970	614				
Arrive On Green	0.16	0.31	0.31	0.05	0.20	0.20	0.05	0.20	0.20	0.47	0.77	0.77				
Sat Flow, veh/h	1774	3031	512	1774	1827	1535	1774	4609	547	1774	5085	1583				
Grp Volume(v), veh/h	299	355	357	69	367	334	69	565	297	460	1103	241				
Grp Sat Flow(s),veh/h/ln	1774	1770	1772	1774	1770	1592	1774	1695	1766	1774	1695	1583				
Q Serve(g_s), s	13.0	13.8	13.9	3.1	16.0	16.0	3.1	12.8	12.9	19.0	6.9	3.9				
Cycle Q Clear(g_c), s	13.0	13.8	13.9	3.1	16.0	16.0	3.1	12.8	12.9	19.0	6.9	3.9				
Prop In Lane	1.00		0.29	1.00		0.96	1.00		0.31	1.00		1.00				
Lane Grp Cap(c), veh/h	288	553	554	88	354	318	89	678	353	421	1970	614				
V/C Ratio(X)	1.04	0.64	0.64	0.78	1.04	1.05	0.78	0.83	0.84	1.09	0.56	0.39				
Avail Cap(c_a), veh/h	288	553	554	111	354	318	177	678	353	421	1970	614				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00				
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.77	0.77	0.77				
Uniform Delay (d), s/veh	33.5	23.6	23.7	37.6	32.0	32.0	37.6	30.7	30.8	21.0	6.3	6.0				
Incr Delay (d2), s/veh	63.0	2.5	2.6	23.9	57.8	63.8	12.7	10.9	19.8	65.9	0.9	1.5				
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	11.4	7.1	7.1	2.1	13.4	12.6	1.8	7.0	8.2	16.8	3.2	1.9				
LnGrp Delay(d),s/veh	96.5	26.1	26.2	61.5	89.8	95.8	50.3	41.6	50.5	86.9	7.2	7.4				
LnGrp LOS	F	C	C	E	F	F	D	D	D	F	A	A				
Approach Vol, veh/h	1011				770				931							
Approach Delay, s/veh	47.0				89.9				45.1							
Approach LOS	D				F				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	8.0	29.0	8.0	35.0	17.0	20.0	23.0	20.0								
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	5.0	24.0	8.0	27.0	13.0	16.0	19.0	16.0								
Max Q Clear Time (g_c+I1), s	5.1	15.9	5.1	8.9	15.0	18.0	21.0	14.9								
Green Ext Time (p_c), s	0.0	5.2	0.0	12.4	0.0	0.0	0.0	1.0								
Intersection Summary																
HCM 2010 Ctrl Delay	46.1															
HCM 2010 LOS	D															

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	210	40	30	390	110	10	340	20	180	790	160
Future Volume (veh/h)	90	210	40	30	390	110	10	340	20	180	790	160
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	110	256	49	37	476	134	12	415	24	220	963	195
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	853	161	53	649	181	21	1416	81	268	1813	366
Arrive On Green	0.08	0.29	0.29	0.03	0.24	0.24	0.01	0.29	0.29	0.15	0.43	0.43
Sat Flow, veh/h	1774	2973	561	1774	2733	764	1774	4921	282	1774	4245	857
Grp Volume(v), veh/h	110	151	154	37	307	303	12	285	154	220	769	389
Grp Sat Flow(s),veh/h/ln	1774	1770	1764	1774	1770	1728	1774	1695	1813	1774	1695	1711
Q Serve(g_s), s	4.0	4.4	4.5	1.4	10.5	10.6	0.4	4.3	4.3	7.9	11.0	11.1
Cycle Q Clear(g_c), s	4.0	4.4	4.5	1.4	10.5	10.6	0.4	4.3	4.3	7.9	11.0	11.1
Prop In Lane	1.00		0.32	1.00		0.44	1.00		0.16	1.00		0.50
Lane Grp Cap(c), veh/h	141	508	506	53	420	410	21	976	522	268	1448	731
V/C Ratio(X)	0.78	0.30	0.30	0.70	0.73	0.74	0.56	0.29	0.30	0.82	0.53	0.53
Avail Cap(c_a), veh/h	216	594	592	135	513	501	108	976	522	379	1448	731
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	18.2	18.3	31.5	23.1	23.1	32.2	18.2	18.2	27.0	13.9	13.9
Incr Delay (d2), s/veh	9.4	0.3	0.3	15.2	4.2	4.5	21.4	0.8	1.4	9.4	1.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.2	2.2	0.9	5.6	5.6	0.3	2.1	2.4	4.5	5.4	5.8
LnGrp Delay(d),s/veh	39.0	18.5	18.6	46.7	27.3	27.7	53.6	18.9	19.6	36.3	15.3	16.7
LnGrp LOS	D	B	B	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		415			647			451			1378	
Approach Delay, s/veh		24.0			28.6			20.1			19.1	
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+Rc), s	6.0	22.8	4.8	32.0	9.2	19.6	13.9	22.9				
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	5.0	22.0	4.0	28.0	8.0	19.0	14.0	18.0				
Max Q Clear Time (g_c+I1), s	3.4	6.5	2.4	13.1	6.0	12.6	9.9	6.3				
Green Ext Time (p_c), s	0.0	5.1	0.0	8.4	0.0	2.9	0.2	7.1				
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)	200	2210	140	90	1750	100	110	310	50	130	360	300
Future Volume (veh/h)	200	2210	140	90	1750	100	110	310	50	130	360	300
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	220	2429	154	99	1923	110	121	341	55	143	396	330
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	2165	136	71	1930	109	95	387	62	154	295	243
Arrive On Green	0.11	0.64	0.64	0.04	0.57	0.57	0.05	0.13	0.13	0.09	0.16	0.16
Sat Flow, veh/h	1774	3383	212	1774	3405	193	1774	3058	489	1774	1842	1522
Grp Volume(v), veh/h	220	1258	1325	99	990	1043	121	196	200	143	380	346
Grp Sat Flow(s),veh/h/ln	1774	1770	1825	1774	1770	1829	1774	1770	1777	1774	1770	1594
Q Serve(g_s), s	17.0	96.0	96.0	6.0	82.6	85.0	8.0	16.3	16.6	12.0	24.0	24.0
Cycle Q Clear(g_c), s	17.0	96.0	96.0	6.0	82.6	85.0	8.0	16.3	16.6	12.0	24.0	24.0
Prop In Lane	1.00		0.12	1.00		0.11	1.00		0.27	1.00		0.95
Lane Grp Cap(c), veh/h	201	1133	1168	71	1003	1036	95	224	225	154	283	255
V/C Ratio(X)	1.09	1.11	1.13	1.40	0.99	1.01	1.28	0.87	0.89	0.93	1.34	1.36
Avail Cap(c_a), veh/h	201	1133	1168	71	1003	1036	95	224	225	154	283	255
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	27.0	27.0	72.0	32.0	32.5	71.0	64.3	64.5	68.0	63.0	63.0
Incr Delay (d2), s/veh	90.9	62.7	71.3	243.3	25.3	29.4	184.7	29.5	32.1	52.2	176.1	183.4
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	13.4	66.3	71.2	7.7	47.2	51.1	8.8	9.8	10.2	8.1	25.6	23.6
LnGrp Delay(d),s/veh	157.4	89.7	98.3	315.3	57.3	62.0	255.7	93.8	96.6	120.2	239.1	246.4
LnGrp LOS	F	F	F	F	E	F	F	F	F	F	F	F
Approach Vol, veh/h	2803			2132				517			869	
Approach Delay, s/veh	99.1			71.6				132.8			222.5	
Approach LOS	F			E				F			F	
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	10.0	100.0	12.0	28.0	21.0	89.0	17.0	23.0				
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	6.0	96.0	8.0	24.0	17.0	85.0	13.0	19.0				
Max Q Clear Time (g_c+I1), s	8.0	98.0	10.0	26.0	19.0	87.0	14.0	18.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3				
Intersection Summary												
HCM 2010 Ctrl Delay	109.5											
HCM 2010 LOS	F											

General Plan Buildout w/o Project - PM Peak Hour
11: Overland Street & Magnolia Avenue

Synchro 9 Report
10/19/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	2360	50	20	1950	30	20	20	10	10	20	40
Future Volume (veh/h)	80	2360	50	20	1950	30	20	20	10	10	20	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	83	2458	52	21	2031	31	21	21	10	10	21	42
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	2721	57	172	2739	42	143	60	25	93	40	72
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.07	0.07	0.07	0.07	0.07	0.07
Sat Flow, veh/h	202	3544	75	129	3568	54	582	794	328	169	537	957
Grp Volume(v), veh/h	83	1223	1287	21	1005	1057	52	0	0	73	0	0
Grp Sat Flow(s),veh/h/ln	202	1770	1850	129	1770	1853	1704	0	0	1663	0	0
Q Serve(g_s), s	19.2	26.4	27.0	7.5	15.5	15.7	0.0	0.0	0.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	34.9	26.4	27.0	34.6	15.5	15.7	1.4	0.0	0.0	2.1	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.03	0.40		0.19	0.14		0.58
Lane Grp Cap(c), veh/h	234	1358	1420	172	1358	1422	227	0	0	205	0	0
V/C Ratio(X)	0.35	0.90	0.91	0.12	0.74	0.74	0.23	0.00	0.00	0.36	0.00	0.00
Avail Cap(c_a), veh/h	234	1358	1420	172	1358	1422	663	0	0	657	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	12.6	4.4	4.5	17.7	3.2	3.2	22.4	0.0	0.0	22.7	0.0	0.0
Incr Delay (d2), s/veh	0.9	8.5	8.7	0.3	2.2	2.2	0.5	0.0	0.0	1.0	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	1.1	15.4	16.3	0.3	8.1	8.5	0.7	0.0	0.0	1.1	0.0	0.0
LnGrp Delay(d),s/veh	13.6	12.9	13.2	18.0	5.4	5.3	22.9	0.0	0.0	23.7	0.0	0.0
LnGrp LOS	B	B	B	B	A	A	C			C		
Approach Vol, veh/h	2593			2083			52			73		
Approach Delay, s/veh	13.1			5.5			22.9			23.7		
Approach LOS	B			A			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	43.0			7.8			43.0			7.8		
Change Period (Y+Rc), s	4.0			4.0			4.0			4.0		
Max Green Setting (Gmax), s	39.0			18.0			39.0			18.0		
Max Q Clear Time (g_c+I1), s	36.9			4.1			36.6			3.4		
Green Ext Time (p_c), s	2.1			0.5			2.4			0.5		
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)	100	1990	100	190	1560	90	110	280	120	90	310	80
Future Volume (veh/h)	100	1990	100	190	1560	90	110	280	120	90	310	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	2261	114	216	1773	102	125	318	136	102	352	91
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	1866	93	193	1967	112	97	355	301	121	291	75
Arrive On Green	0.07	0.53	0.53	0.11	0.57	0.57	0.05	0.19	0.19	0.07	0.20	0.20
Sat Flow, veh/h	1737	3499	175	1810	3472	198	1810	1900	1615	1810	1457	377
Grp Volume(v), veh/h	114	1157	1218	216	915	960	125	318	136	102	0	443
Grp Sat Flow(s),veh/h/ln	1737	1805	1869	1810	1805	1865	1810	1900	1615	1810	0	1834
Q Serve(g_s), s	9.8	80.0	80.0	16.0	66.8	69.0	8.0	24.5	11.2	8.4	0.0	30.0
Cycle Q Clear(g_c), s	9.8	80.0	80.0	16.0	66.8	69.0	8.0	24.5	11.2	8.4	0.0	30.0
Prop In Lane	1.00		0.09	1.00		0.11	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	127	963	997	193	1023	1057	97	355	301	121	0	367
V/C Ratio(X)	0.89	1.20	1.22	1.12	0.89	0.91	1.30	0.90	0.45	0.85	0.00	1.21
Avail Cap(c_a), veh/h	127	963	997	193	1023	1057	97	355	301	121	0	367
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	68.9	35.0	35.0	67.0	28.6	29.0	71.0	59.6	54.2	69.2	0.0	60.0
Incr Delay (d2), s/veh	49.2	100.9	108.9	100.4	10.2	11.4	190.1	24.2	1.1	39.5	0.0	116.5
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	6.4	66.6	71.1	13.4	35.9	38.5	9.1	15.3	5.1	5.5	0.0	27.0
LnGrp Delay(d),s/veh	118.2	135.9	143.9	167.4	38.8	40.4	261.1	83.8	55.2	108.7	0.0	176.5
LnGrp LOS	F	F	F	F	D	D	F	F	E	F		F
Approach Vol, veh/h		2489			2091			579			545	
Approach Delay, s/veh		139.0			52.8			115.4			163.8	
Approach LOS		F			D			F			F	
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	20.0	84.0	12.0	34.0	15.0	89.0	14.0	32.0				
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	16.0	80.0	8.0	30.0	11.0	85.0	10.0	28.0				
Max Q Clear Time (g_c+I1), s	18.0	82.0	10.0	32.0	11.8	71.0	10.4	26.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	13.9	0.0	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			107.4									
HCM 2010 LOS			F									

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑		↑	↑↑	↑	↑		
Traffic Volume (veh/h)	1880	160	252	1900	146	229		
Future Volume (veh/h)	1880	160	252	1900	146	229		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	2000	170	268	2021	155	244		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2100	176	292	2926	213	190		
Arrive On Green	0.64	0.64	0.16	0.83	0.12	0.12		
Sat Flow, veh/h	3399	277	1774	3632	1774	1583		
Grp Volume(v), veh/h	1057	1113	268	2021	155	244		
Grp Sat Flow(s),veh/h/ln	1770	1814	1774	1770	1774	1583		
Q Serve(g_s), s	81.2	86.9	22.3	34.6	12.6	18.0		
Cycle Q Clear(g_c), s	81.2	86.9	22.3	34.6	12.6	18.0		
Prop In Lane		0.15	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1124	1152	292	2926	213	190		
V/C Ratio(X)	0.94	0.97	0.92	0.69	0.73	1.28		
Avail Cap(c_a), veh/h	1124	1152	367	2926	213	190		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.09	0.09	0.09	0.09	1.00	1.00		
Uniform Delay (d), s/veh	24.8	25.8	61.6	5.3	63.6	66.0		
Incr Delay (d2), s/veh	2.1	3.3	3.2	0.1	11.8	161.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	40.0	44.3	11.2	16.6	6.9	16.4		
LnGrp Delay(d),s/veh	26.9	29.1	64.9	5.3	75.5	227.7		
LnGrp LOS	C	C	E	A	E	F		
Approach Vol, veh/h	2170			2289	399			
Approach Delay, s/veh	28.0			12.3	168.6			
Approach LOS	C			B	F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	28.7	99.3				128.0		22.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	31.0	89.0				124.0		18.0
Max Q Clear Time (g_c+I1), s	24.3	88.9				36.6		20.0
Green Ext Time (p_c), s	0.4	0.1				81.5		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			32.2					
HCM 2010 LOS			C					

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1340	100	80	1360	130	70	190	70	90	220	90
Future Volume (veh/h)	110	1340	100	80	1360	130	70	190	70	90	220	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	117	1426	106	85	1447	138	74	202	74	96	234	96
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1669	124	99	1559	148	95	261	95	118	268	110
Arrive On Green	0.08	0.50	0.50	0.06	0.48	0.48	0.05	0.20	0.20	0.07	0.21	0.21
Sat Flow, veh/h	1774	3341	247	1774	3268	310	1774	1302	477	1774	1256	515
Grp Volume(v), veh/h	117	752	780	85	779	806	74	0	276	96	0	330
Grp Sat Flow(s),veh/h/ln	1774	1770	1819	1774	1770	1808	1774	0	1779	1774	0	1772
Q Serve(g_s), s	5.9	33.3	33.7	4.3	37.0	37.8	3.7	0.0	13.2	4.8	0.0	16.2
Cycle Q Clear(g_c), s	5.9	33.3	33.7	4.3	37.0	37.8	3.7	0.0	13.2	4.8	0.0	16.2
Prop In Lane	1.00		0.14	1.00		0.17	1.00		0.27	1.00		0.29
Lane Grp Cap(c), veh/h	138	884	909	99	844	863	95	0	356	118	0	378
V/C Ratio(X)	0.85	0.85	0.86	0.86	0.92	0.93	0.78	0.00	0.78	0.81	0.00	0.87
Avail Cap(c_a), veh/h	138	886	911	99	846	865	99	0	356	118	0	378
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.9	19.6	19.7	42.1	22.0	22.2	42.0	0.0	34.0	41.4	0.0	34.2
Incr Delay (d2), s/veh	36.0	8.0	8.2	49.5	15.5	16.8	31.2	0.0	15.1	33.0	0.0	23.2
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	4.2	18.0	18.7	3.4	21.6	22.6	2.6	0.0	7.9	3.4	0.0	10.3
LnGrp Delay(d),s/veh	76.9	27.6	27.9	91.6	37.4	39.0	73.2	0.0	49.2	74.4	0.0	57.3
LnGrp LOS	E	C	C	F	D	D	E		D	E		E
Approach Vol, veh/h	1649			1670				350			426	
Approach Delay, s/veh	31.2			40.9				54.3			61.2	
Approach LOS	C			D				D			E	
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	9.0	48.9	8.8	23.2	11.0	46.9	10.0	22.0				
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	5.0	45.0	5.0	19.0	7.0	43.0	6.0	18.0				
Max Q Clear Time (g_c+I1), s	6.3	35.7	5.7	18.2	7.9	39.8	6.8	15.2				
Green Ext Time (p_c), s	0.0	8.7	0.0	0.3	0.0	3.1	0.0	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay	40.3											
HCM 2010 LOS	D											

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	390	410	1
Future Vol, veh/h	1	1	1	390	410	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	1	481	506	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	991	507	507	0	-	0
Stage 1	507	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Critical Hdwy	7.12	6.22	4.12	-	-	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	225	566	1058	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	225	566	1058	-	-	-
Mov Cap-2 Maneuver	225	-	-	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	563	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1058	-	322	-	-
HCM Lane V/C Ratio	0.001	-	0.008	-	-
HCM Control Delay (s)	8.4	0	16.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	60	170	50	40	90	120	1260	30	60	1350	20
Future Volume (veh/h)	20	60	170	50	40	90	120	1260	30	60	1350	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	24	72	205	60	48	108	145	1518	36	72	1627	24
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	104	256	151	111	182	155	1800	43	91	1689	25
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.09	0.51	0.51	0.05	0.47	0.47
Sat Flow, veh/h	68	455	1117	306	486	792	1774	3534	84	1774	3570	53
Grp Volume(v), veh/h	301	0	0	216	0	0	145	759	795	72	805	846
Grp Sat Flow(s),veh/h/ln	1640	0	0	1584	0	0	1774	1770	1848	1774	1770	1853
Q Serve(g_s), s	3.2	0.0	0.0	0.0	0.0	0.0	4.6	21.0	21.1	2.3	25.1	25.2
Cycle Q Clear(g_c), s	9.8	0.0	0.0	6.6	0.0	0.0	4.6	21.0	21.1	2.3	25.1	25.2
Prop In Lane	0.08		0.68	0.28		0.50	1.00		0.05	1.00		0.03
Lane Grp Cap(c), veh/h	444	0	0	444	0	0	155	901	941	91	837	877
V/C Ratio(X)	0.68	0.00	0.00	0.49	0.00	0.00	0.93	0.84	0.84	0.79	0.96	0.96
Avail Cap(c_a), veh/h	526	0	0	518	0	0	155	901	941	124	837	877
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	0.0	19.4	0.0	0.0	25.9	12.0	12.1	26.8	14.6	14.6
Incr Delay (d2), s/veh	2.8	0.0	0.0	0.8	0.0	0.0	52.7	9.4	9.2	21.1	23.2	23.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	0.0	3.1	0.0	0.0	4.5	12.5	13.0	1.7	17.5	18.3
LnGrp Delay(d),s/veh	23.5	0.0	0.0	20.3	0.0	0.0	78.6	21.4	21.2	47.9	37.8	37.5
LnGrp LOS	C			C			E	C	C	D	D	D
Approach Vol, veh/h		301			216			1699			1723	
Approach Delay, s/veh		23.5			20.3			26.2			38.1	
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+Rc), s		17.1	9.0	31.0		17.1	6.9	33.1				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		16.0	5.0	27.0		16.0	4.0	28.0				
Max Q Clear Time (g_c+I1), s		11.8	6.6	27.2		8.6	4.3	23.1				
Green Ext Time (p_c), s		1.3	0.0	0.0		2.0	0.0	4.7				
Intersection Summary												
HCM 2010 Ctrl Delay			30.9									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	900	240	150	580	390	500	840	330	380	950	120
Future Volume (veh/h)	140	900	240	150	580	390	500	840	330	380	950	120
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1885	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	159	1023	273	170	659	443	568	955	375	432	1080	136
Adj No. of Lanes	1	2	1	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	157	1083	758	167	616	413	594	898	426	409	998	126
Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.17	0.25	0.25	0.23	0.32	0.32
Sat Flow, veh/h	1703	3610	1615	1810	2054	1378	3510	3539	1680	1774	3164	398
Grp Volume(v), veh/h	159	1023	273	170	574	528	568	955	375	432	603	613
Grp Sat Flow(s),veh/h/ln	1703	1805	1615	1810	1791	1642	1755	1770	1680	1774	1770	1793
Q Serve(g_s), s	12.0	36.0	14.0	12.0	39.0	39.0	20.8	33.0	27.9	30.0	41.0	41.0
Cycle Q Clear(g_c), s	12.0	36.0	14.0	12.0	39.0	39.0	20.8	33.0	27.9	30.0	41.0	41.0
Prop In Lane	1.00		1.00	1.00		0.84	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	157	1083	758	167	537	492	594	898	426	409	558	565
V/C Ratio(X)	1.01	0.94	0.36	1.02	1.07	1.07	0.96	1.06	0.88	1.06	1.08	1.08
Avail Cap(c_a), veh/h	157	1083	758	167	537	492	594	898	426	409	558	565
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)	0.09	0.09	0.09	0.58	0.58	0.58	0.41	0.41	0.41	0.22	0.22	0.22
Uniform Delay (d), s/veh	59.0	44.4	22.0	59.0	45.5	45.5	53.5	48.5	46.6	50.0	44.5	44.5
Incr Delay (d2), s/veh	24.4	2.3	0.1	57.6	49.8	51.9	14.5	38.6	8.8	37.2	44.3	45.2
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	18.3	6.2	8.7	26.7	24.7	11.3	20.9	14.0	18.9	26.9	27.4
LnGrp Delay(d),s/veh	83.4	46.8	22.2	116.8	95.3	97.4	68.1	87.1	55.4	87.2	88.8	89.7
LnGrp LOS	F	D	C	F	F	F	E	F	E	F	F	F
Approach Vol, veh/h		1455			1272			1898			1648	
Approach Delay, s/veh		46.2			99.0			75.1			88.7	
Approach LOS		D			F			E			F	
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	16.0	43.0	26.0	45.0	16.0	43.0	34.0	37.0				
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	12.0	39.0	22.0	41.0	12.0	39.0	30.0	33.0				
Max Q Clear Time (g_c+I1), s	14.0	38.0	22.8	43.0	14.0	41.0	32.0	35.0				
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			76.8									
HCM 2010 LOS			E									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	4	113	90	10	30	547	1320	20	20	1040	92
Future Volume (veh/h)	18	4	113	90	10	30	547	1320	20	20	1040	92
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1937	1863	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	22	5	136	108	12	36	659	1590	24	24	1253	111
Adj No. of Lanes	1	1	1	0	1	0	2	2	0	1	3	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	270	221	190	22	45	779	2580	39	34	2455	217
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.23	0.72	0.72	0.02	0.52	0.52
Sat Flow, veh/h	1352	1937	1583	933	155	326	3442	3569	54	1774	4757	421
Grp Volume(v), veh/h	22	5	136	156	0	0	659	787	827	24	893	471
Grp Sat Flow(s),veh/h/ln	1352	1937	1583	1414	0	0	1721	1770	1853	1774	1695	1788
Q Serve(g_s), s	0.0	0.2	8.2	10.3	0.0	0.0	18.6	22.5	22.6	1.4	17.6	17.6
Cycle Q Clear(g_c), s	1.5	0.2	8.2	10.8	0.0	0.0	18.6	22.5	22.6	1.4	17.6	17.6
Prop In Lane	1.00		1.00	0.69		0.23	1.00		0.03	1.00		0.24
Lane Grp Cap(c), veh/h	257	270	221	257	0	0	779	1279	1340	34	1749	923
V/C Ratio(X)	0.09	0.02	0.62	0.61	0.00	0.00	0.85	0.62	0.62	0.70	0.51	0.51
Avail Cap(c_a), veh/h	468	573	468	476	0	0	1493	1535	1608	350	2139	1129
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	37.7	41.1	42.1	0.0	0.0	37.5	7.0	7.0	49.4	16.1	16.1
Incr Delay (d2), s/veh	0.1	0.0	2.8	2.3	0.0	0.0	2.6	0.5	0.5	22.4	0.2	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	0.5	0.1	3.8	4.4	0.0	0.0	9.1	11.1	11.7	0.9	8.2	8.7
LnGrp Delay(d),s/veh	38.3	37.7	43.9	44.4	0.0	0.0	40.2	7.5	7.5	71.9	16.4	16.6
LnGrp LOS	D	D	D	D			D	A	A	E	B	B
Approach Vol, veh/h		163			156			2273			1388	
Approach Delay, s/veh		42.9			44.4			17.0			17.4	
Approach LOS		D			D			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.1	27.0	56.3		18.1	6.0	77.3				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		30.0	44.0	64.0		30.0	20.0	88.0				
Max Q Clear Time (g_c+I1), s		10.2	20.6	19.6		12.8	3.4	24.6				
Green Ext Time (p_c), s		1.4	2.4	32.8		1.4	0.0	41.8				
Intersection Summary												
HCM 2010 Ctrl Delay			19.3									
HCM 2010 LOS			B									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	1880	20	0	1240
Future Vol, veh/h	0	10	1880	20	0	1240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	12	2265	24	0	1494
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1145	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	168	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	168	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	28.1		0		0	
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	- 168	-			
HCM Lane V/C Ratio	-	- 0.072	-			
HCM Control Delay (s)	-	- 28.1	-			
HCM Lane LOS	-	- D	-			
HCM 95th %tile O(veh)	-	- 0.2	-			

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	340	1	580	270	1030	0	0	760	540
Future Volume (veh/h)	0	0	0	340	1	580	270	1030	0	0	760	540
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				410	217	555	325	1241	0	0	916	651
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				455	241	611	600	1891	0	0	1627	507
Arrive On Green				0.39	0.39	0.39	0.17	0.53	0.00	0.00	0.32	0.32
Sat Flow, veh/h				1179	624	1583	3442	3632	0	0	5253	1583
Grp Volume(v), veh/h				627	0	555	325	1241	0	0	916	651
Grp Sat Flow(s),veh/h/ln				1804	0	1583	1721	1770	0	0	1695	1583
Q Serve(g_s), s				32.7	0.0	33.2	8.6	25.2	0.0	0.0	14.9	32.0
Cycle Q Clear(g_c), s				32.7	0.0	33.2	8.6	25.2	0.0	0.0	14.9	32.0
Prop In Lane				0.65		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				696	0	611	600	1891	0	0	1627	507
V/C Ratio(X)				0.90	0.00	0.91	0.54	0.66	0.00	0.00	0.56	1.28
Avail Cap(c_a), veh/h				758	0	665	600	1891	0	0	1627	507
HCM Platoon Ratio				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	0.48	0.48	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.9	0.0	29.0	37.6	16.7	0.0	0.0	28.2	34.0
Incr Delay (d2), s/veh				13.3	0.0	15.7	0.5	0.9	0.0	0.0	1.4	142.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				18.8	0.0	17.2	4.1	12.5	0.0	0.0	7.2	34.0
LnGrp Delay(d),s/veh				42.2	0.0	44.8	38.1	17.6	0.0	0.0	29.6	176.6
LnGrp LOS				D		D	D	B			C	F
Approach Vol, veh/h					1182			1566			1567	
Approach Delay, s/veh					43.4			21.8			90.7	
Approach LOS					D			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			21.4	36.0		42.6		57.4				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			14.0	32.0		42.0		50.0				
Max Q Clear Time (g_c+I1), s			10.6	34.0		35.2		27.2				
Green Ext Time (p_c), s			2.5	0.0		3.4		10.4				
Intersection Summary												
HCM 2010 Ctrl Delay			52.7									
HCM 2010 LOS			D									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (veh/h)	460	1	580	0	0	0	0	670	460	290	830	0
Future Volume (veh/h)	460	1	580	0	0	0	0	670	460	290	830	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	489	1	617				0	713	489	309	883	0
Adj No. of Lanes	0	1	1				0	3	0	1	3	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	664	1	594				0	945	442	348	2670	0
Arrive On Green	0.38	0.38	0.38				0.00	0.28	0.28	0.20	0.52	0.00
Sat Flow, veh/h	1771	4	1583				0	3558	1583	1774	5253	0
Grp Volume(v), veh/h	490	0	617				0	713	489	309	883	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1583	1774	1695	0
Q Serve(g_s), s	19.1	0.0	30.0				0.0	15.4	22.3	13.6	8.0	0.0
Cycle Q Clear(g_c), s	19.1	0.0	30.0				0.0	15.4	22.3	13.6	8.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	665	0	594				0	945	442	348	2670	0
V/C Ratio(X)	0.74	0.00	1.04				0.00	0.75	1.11	0.89	0.33	0.00
Avail Cap(c_a), veh/h	665	0	594				0	945	442	377	2670	0
HCM Platoon Ratio	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				0.00	0.43	0.43	0.74	0.74	0.00
Uniform Delay (d), s/veh	21.6	0.0	25.0				0.0	26.3	28.8	31.3	10.9	0.0
Incr Delay (d2), s/veh	4.3	0.0	47.5				0.0	2.5	62.4	16.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	20.9				0.0	7.5	17.3	8.2	3.7	0.0
LnGrp Delay(d),s/veh	25.9	0.0	72.5				0.0	28.8	91.2	47.6	11.2	0.0
LnGrp LOS	C		F					C	F	D	B	
Approach Vol, veh/h		1107						1202			1192	
Approach Delay, s/veh		51.8						54.2			20.6	
Approach LOS		D						D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		34.0		46.0			19.7	26.3				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		30.0		42.0			17.0	21.0				
Max Q Clear Time (g_c+I1), s		32.0		10.0			15.6	24.3				
Green Ext Time (p_c), s		0.0		17.9			0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			42.0									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	690	70	60	200	150	30	710	50	540	1120	150
Future Volume (veh/h)	160	690	70	60	200	150	30	710	50	540	1120	150
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	176	758	77	66	220	165	33	780	55	593	1231	165
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	261	802	81	83	290	208	45	913	64	584	1742	779
Arrive On Green	0.15	0.25	0.25	0.05	0.15	0.15	0.03	0.19	0.19	0.33	0.49	0.49
Sat Flow, veh/h	1774	3245	329	1774	1970	1413	1774	4852	341	1774	3539	1583
Grp Volume(v), veh/h	176	413	422	66	197	188	33	544	291	593	1231	165
Grp Sat Flow(s),veh/h/ln	1774	1770	1805	1774	1770	1613	1774	1695	1803	1774	1770	1583
Q Serve(g_s), s	8.0	19.5	19.5	3.1	9.1	9.6	1.6	13.2	13.3	28.0	23.0	2.6
Cycle Q Clear(g_c), s	8.0	19.5	19.5	3.1	9.1	9.6	1.6	13.2	13.3	28.0	23.0	2.6
Prop In Lane	1.00		0.18	1.00		0.88	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	261	437	446	83	260	237	45	638	339	584	1742	779
V/C Ratio(X)	0.67	0.95	0.95	0.79	0.76	0.79	0.73	0.85	0.86	1.01	0.71	0.21
Avail Cap(c_a), veh/h	261	437	446	83	333	304	104	638	339	584	1742	779
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	0.15	0.15	0.15	0.79	0.79	0.79
Uniform Delay (d), s/veh	34.3	31.4	31.4	40.1	34.8	35.0	41.1	33.4	33.4	28.5	16.8	3.4
Incr Delay (d2), s/veh	6.7	29.6	29.3	38.7	7.2	10.6	3.3	2.3	4.4	36.8	1.9	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	4.4	13.1	13.4	2.4	4.9	5.0	0.8	6.3	7.0	19.6	11.6	1.2
LnGrp Delay(d),s/veh	41.0	61.0	60.8	78.8	41.9	45.6	44.5	35.7	37.8	65.3	18.7	3.9
LnGrp LOS	D	E	E	E	D	D	D	D	D	F	B	A
Approach Vol, veh/h	1011				451			868			1989	
Approach Delay, s/veh	57.4				48.9			36.7			31.4	
Approach LOS	E				D			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+Rc), s	8.0	25.0	6.2	45.8	16.5	16.5	32.0	20.0				
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	4.0	21.0	5.0	39.0	9.0	16.0	28.0	16.0				
Max Q Clear Time (g_c+I1), s	5.1	21.5	3.6	25.0	10.0	11.6	30.0	15.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	10.5	0.0	0.9	0.0	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay	40.4											
HCM 2010 LOS	D											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	270	30	10	270	180	30	990	30	180	370	90
Future Volume (veh/h)	190	270	30	10	270	180	30	990	30	180	370	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	241	342	38	13	342	228	38	1253	38	228	468	114
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	263	1127	124	23	442	289	54	1276	39	263	1518	360
Arrive On Green	0.15	0.35	0.35	0.01	0.22	0.22	0.03	0.25	0.25	0.15	0.37	0.37
Sat Flow, veh/h	1774	3215	355	1774	2053	1343	1774	5072	154	1774	4108	973
Grp Volume(v), veh/h	241	187	193	13	294	276	38	837	454	228	384	198
Grp Sat Flow(s),veh/h/ln	1774	1770	1800	1774	1770	1626	1774	1695	1836	1774	1695	1691
Q Serve(g_s), s	9.0	5.2	5.3	0.5	10.6	10.8	1.4	16.6	16.6	8.5	5.4	5.7
Cycle Q Clear(g_c), s	9.0	5.2	5.3	0.5	10.6	10.8	1.4	16.6	16.6	8.5	5.4	5.7
Prop In Lane	1.00		0.20	1.00		0.83	1.00		0.08	1.00		0.58
Lane Grp Cap(c), veh/h	263	621	631	23	381	350	54	853	462	263	1253	625
V/C Ratio(X)	0.92	0.30	0.31	0.57	0.77	0.79	0.71	0.98	0.98	0.87	0.31	0.32
Avail Cap(c_a), veh/h	263	621	631	105	445	409	131	853	462	263	1253	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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	15.9	16.0	33.2	24.9	25.0	32.5	25.1	25.1	28.1	15.1	15.2
Incr Delay (d2), s/veh	34.5	0.3	0.3	20.6	6.9	8.6	15.8	26.7	37.6	25.2	0.6	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	6.9	2.5	2.7	0.4	5.9	5.7	0.9	10.8	13.1	6.0	2.6	2.9
LnGrp Delay(d),s/veh	62.9	16.2	16.2	53.8	31.9	33.6	48.3	51.8	62.7	53.3	15.8	16.5
LnGrp LOS	E	B	B	D	C	C	D	D	E	D	B	B
Approach Vol, veh/h		621			583			1329			810	
Approach Delay, s/veh		34.3			33.2			55.4			26.5	
Approach LOS		C			C			E			C	
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	4.9	27.7	6.0	29.0	14.0	18.6	14.0	21.0				
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	4.0	23.0	5.0	22.0	10.0	17.0	10.0	17.0				
Max Q Clear Time (g_c+I1), s	2.5	7.3	3.4	7.7	11.0	12.8	10.5	18.6				
Green Ext Time (p_c), s	0.0	5.4	0.0	9.3	0.0	1.7	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			40.6									
HCM 2010 LOS			D									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1480	130	100	960	170	120	450	140	160	290	150
Future Volume (veh/h)	190	1480	130	100	960	170	120	450	140	160	290	150
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	229	1783	157	120	1157	205	145	542	169	193	349	181
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	1749	152	123	1376	243	170	471	146	177	411	210
Arrive On Green	0.14	0.53	0.53	0.07	0.46	0.46	0.10	0.18	0.18	0.10	0.18	0.18
Sat Flow, veh/h	1774	3296	286	1774	3008	530	1774	2660	826	1774	2271	1157
Grp Volume(v), veh/h	229	945	995	120	678	684	145	360	351	193	271	259
Grp Sat Flow(s),veh/h/ln	1774	1770	1812	1774	1770	1769	1774	1770	1717	1774	1770	1659
Q Serve(g_s), s	16.5	69.0	69.0	8.8	43.9	44.4	10.5	23.0	23.0	13.0	19.2	19.7
Cycle Q Clear(g_c), s	16.5	69.0	69.0	8.8	43.9	44.4	10.5	23.0	23.0	13.0	19.2	19.7
Prop In Lane	1.00		0.16	1.00		0.30	1.00		0.48	1.00		0.70
Lane Grp Cap(c), veh/h	253	939	962	123	809	809	170	313	304	177	321	300
V/C Ratio(X)	0.90	1.01	1.03	0.98	0.84	0.84	0.85	1.15	1.16	1.09	0.84	0.86
Avail Cap(c_a), veh/h	259	939	962	123	809	809	191	313	304	177	321	300
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	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	30.5	30.5	60.4	31.0	31.2	57.9	53.5	53.5	58.5	51.4	51.7
Incr Delay (d2), s/veh	31.7	30.9	38.2	66.1	8.4	8.8	27.2	97.7	100.8	93.0	18.2	21.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	41.5	44.4	6.6	23.2	23.6	6.4	19.7	19.4	10.9	11.0	10.9
LnGrp Delay(d),s/veh	86.6	61.5	68.7	126.5	39.4	40.0	85.1	151.2	154.3	151.5	69.7	73.6
LnGrp LOS	F	F	F	F	D	D	F	F	F	F	E	E
Approach Vol, veh/h	2169			1482				856			723	
Approach Delay, s/veh	67.4			46.7				141.2			92.9	
Approach LOS	E			D				F			F	
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	13.0	73.0	16.4	27.6	22.5	63.5	17.0	27.0				
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	9.0	69.0	14.0	22.0	19.0	59.0	13.0	23.0				
Max Q Clear Time (g_c+I1), s	10.8	71.0	12.5	21.7	18.5	46.4	15.0	25.0				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.2	0.0	7.2	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	77.2											
HCM 2010 LOS	E											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1620	240	150	1110	80	20	30	10	70	210	140
Future Volume (veh/h)	80	1620	240	150	1110	80	20	30	10	70	210	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	90	1820	270	169	1247	90	22	34	11	79	236	157
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	2134	309	133	2302	166	121	170	45	101	189	119
Arrive On Green	0.69	0.69	0.69	0.69	0.69	0.69	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	407	3104	449	196	3349	241	289	799	214	229	891	558
Grp Volume(v), veh/h	90	1018	1072	169	658	679	67	0	0	472	0	0
Grp Sat Flow(s),veh/h/ln	407	1770	1783	196	1770	1820	1302	0	0	1678	0	0
Q Serve(g_s), s	11.3	33.9	37.7	17.3	14.8	14.9	0.0	0.0	0.0	14.0	0.0	0.0
Cycle Q Clear(g_c), s	26.2	33.9	37.7	55.0	14.8	14.9	2.4	0.0	0.0	17.0	0.0	0.0
Prop In Lane	1.00		0.25	1.00		0.13	0.33		0.16	0.17		0.33
Lane Grp Cap(c), veh/h	294	1217	1226	133	1217	1251	336	0	0	409	0	0
V/C Ratio(X)	0.31	0.84	0.87	1.27	0.54	0.54	0.20	0.00	0.00	1.15	0.00	0.00
Avail Cap(c_a), veh/h	294	1217	1226	133	1217	1251	336	0	0	409	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)	0.09	0.09	0.09	0.57	0.57	0.57	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.8	9.2	9.8	37.2	6.2	6.2	25.8	0.0	0.0	32.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.7	0.9	152.9	0.3	0.3	0.3	0.0	0.0	93.5	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	16.4	18.5	8.5	7.2	7.5	1.2	0.0	0.0	19.6	0.0	0.0
LnGrp Delay(d),s/veh	13.0	9.9	10.7	190.1	6.5	6.5	26.0	0.0	0.0	126.0	0.0	0.0
LnGrp LOS	B	A	B	F	A	A	C			F		
Approach Vol, veh/h	2180				1506		67				472	
Approach Delay, s/veh	10.4				27.1		26.0				126.0	
Approach LOS	B				C		C				F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	59.0		21.0		59.0		21.0					
Change Period (Y+Rc), s	4.0		4.0		4.0		4.0					
Max Green Setting (Gmax), s	55.0		17.0		55.0		17.0					
Max Q Clear Time (g_c+I1), s	39.7		19.0		57.0		4.4					
Green Ext Time (p_c), s	15.1		0.0		0.0		2.9					
Intersection Summary												
HCM 2010 Ctrl Delay			29.5									
HCM 2010 LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	1270	140	130	600	70	230	240	190	120	280	80
Future Volume (veh/h)	120	1270	140	130	600	70	230	240	190	120	280	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	1649	182	169	779	91	299	312	247	156	364	104
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	181	1502	163	142	1406	164	259	475	404	180	295	84
Arrive On Green	0.10	0.46	0.46	0.08	0.43	0.43	0.14	0.25	0.25	0.10	0.21	0.21
Sat Flow, veh/h	1737	3285	357	1810	3257	380	1810	1900	1615	1810	1422	406
Grp Volume(v), veh/h	156	896	935	169	432	438	299	312	247	156	0	468
Grp Sat Flow(s),veh/h/ln	1737	1805	1837	1810	1805	1833	1810	1900	1615	1810	0	1828
Q Serve(g_s), s	12.4	64.0	64.0	11.0	25.0	25.0	20.0	20.6	19.0	11.9	0.0	29.0
Cycle Q Clear(g_c), s	12.4	64.0	64.0	11.0	25.0	25.0	20.0	20.6	19.0	11.9	0.0	29.0
Prop In Lane	1.00		0.19	1.00		0.21	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	181	825	840	142	779	791	259	475	404	180	0	379
V/C Ratio(X)	0.86	1.09	1.11	1.19	0.55	0.55	1.16	0.66	0.61	0.86	0.00	1.24
Avail Cap(c_a), veh/h	285	825	840	142	779	791	259	475	404	220	0	379
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	61.7	38.0	38.0	64.5	29.7	29.7	60.0	47.1	46.5	62.1	0.0	55.5
Incr Delay (d2), s/veh	14.6	57.0	67.3	135.0	0.9	0.8	105.0	3.3	2.7	24.7	0.0	126.9
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	6.7	44.9	48.1	10.8	12.7	12.9	17.5	11.3	8.7	7.2	0.0	28.0
LnGrp Delay(d),s/veh	76.3	95.0	105.3	199.5	30.6	30.6	165.0	50.3	49.1	86.8	0.0	182.4
LnGrp LOS	E	F	F	F	C	C	F	D	D	F		F
Approach Vol, veh/h		1987			1039			858			624	
Approach Delay, s/veh		98.4			58.1			90.0			158.5	
Approach LOS		F			E			F			F	
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	15.0	68.0	24.0	33.0	18.6	64.4	18.0	39.0				
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	11.0	64.0	20.0	29.0	23.0	52.0	17.0	32.0				
Max Q Clear Time (g_c+I1), s	13.0	66.0	22.0	31.0	14.4	27.0	13.9	22.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	20.2	0.1	3.8				
Intersection Summary												
HCM 2010 Ctrl Delay			95.8									
HCM 2010 LOS			F									

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations								
Traffic Volume (veh/h)	1210	182	93	920	36	18		
Future Volume (veh/h)	1210	182	93	920	36	18		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	1344	202	103	1022	40	20		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2155	321	132	2932	101	90		
Arrive On Green	0.70	0.70	0.07	0.83	0.06	0.06		
Sat Flow, veh/h	3184	460	1774	3632	1774	1583		
Grp Volume(v), veh/h	765	781	103	1022	40	20		
Grp Sat Flow(s),veh/h/ln	1770	1781	1774	1770	1774	1583		
Q Serve(g_s), s	16.1	16.6	4.0	4.9	1.5	0.8		
Cycle Q Clear(g_c), s	16.1	16.6	4.0	4.9	1.5	0.8		
Prop In Lane		0.26	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1234	1242	132	2932	101	90		
V/C Ratio(X)	0.62	0.63	0.78	0.35	0.39	0.22		
Avail Cap(c_a), veh/h	1234	1242	177	2932	405	362		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.09	0.09	0.09	0.09	1.00	1.00		
Uniform Delay (d), s/veh	5.7	5.7	31.8	1.4	31.8	31.5		
Incr Delay (d2), s/veh	0.2	0.2	1.5	0.0	2.5	1.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.7	8.1	2.0	2.3	0.8	0.4		
LnGrp Delay(d),s/veh	5.9	5.9	33.3	1.5	34.3	32.7		
LnGrp LOS	A	A	C	A	C	C		
Approach Vol, veh/h	1546			1125	60			
Approach Delay, s/veh	5.9			4.4	33.8			
Approach LOS	A			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.2	52.8				62.0		8.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	7.0	35.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	6.0	18.6				6.9		3.5
Green Ext Time (p_c), s	0.0	13.7				27.1		0.1
Intersection Summary								
HCM 2010 Ctrl Delay			5.9					
HCM 2010 LOS			A					

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1280	90	90	790	150	120	140	90	150	140	120
Future Volume (veh/h)	80	1280	90	90	790	150	120	140	90	150	140	120
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	100	1600	112	112	988	188	150	175	112	188	175	150
Adj No. of Lanes	1	2	0	1	2	0	1	2	1	1	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	1466	102	141	1320	251	167	668	299	188	186	159
Arrive On Green	0.07	0.44	0.44	0.08	0.44	0.44	0.09	0.19	0.19	0.11	0.20	0.20
Sat Flow, veh/h	1774	3358	233	1774	2969	564	1774	3539	1583	1774	927	795
Grp Volume(v), veh/h	100	838	874	112	588	588	150	175	112	188	0	325
Grp Sat Flow(s),veh/h/ln	1774	1770	1822	1774	1770	1763	1774	1770	1583	1774	0	1722
Q Serve(g_s), s	4.7	37.0	37.0	5.3	23.4	23.5	7.1	3.6	5.2	9.0	0.0	15.8
Cycle Q Clear(g_c), s	4.7	37.0	37.0	5.3	23.4	23.5	7.1	3.6	5.2	9.0	0.0	15.8
Prop In Lane	1.00		0.13	1.00		0.32	1.00		1.00	1.00		0.46
Lane Grp Cap(c), veh/h	127	773	795	141	787	784	167	668	299	188	0	346
V/C Ratio(X)	0.79	1.08	1.10	0.79	0.75	0.75	0.90	0.26	0.37	1.00	0.00	0.94
Avail Cap(c_a), veh/h	147	773	795	147	787	784	167	668	299	188	0	346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.7	23.9	23.9	38.3	19.6	19.6	38.0	29.3	30.0	37.9	0.0	33.4
Incr Delay (d2), s/veh	21.5	57.8	62.4	24.5	4.0	4.0	41.1	1.0	3.6	64.9	0.0	35.4
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	3.1	30.2	32.1	3.5	12.3	12.3	5.4	1.8	2.6	7.7	0.0	10.9
LnGrp Delay(d),s/veh	60.2	81.7	86.2	62.9	23.6	23.6	79.1	30.3	33.6	102.7	0.0	68.8
LnGrp LOS	E	F	F	E	C	C	E	C	C	F		E
Approach Vol, veh/h		1812			1288			437			513	
Approach Delay, s/veh		82.7			27.0			47.9			81.2	
Approach LOS		F			C			D			F	
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	10.7	41.0	12.0	21.0	10.1	41.7	13.0	20.0				
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	7.0	37.0	8.0	17.0	7.0	37.0	9.0	16.0				
Max Q Clear Time (g_c+I1), s	7.3	39.0	9.1	17.8	6.7	25.5	11.0	7.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	10.4	0.0	2.2				
Intersection Summary												
HCM 2010 Ctrl Delay			61.0									
HCM 2010 LOS			E									

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	500	440	1
Future Vol, veh/h	1	1	1	500	440	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	1	617	543	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1164	544	544	0	-	0
Stage 1	544	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	215	539	1025	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	215	539	1025	-	-	-
Mov Cap-2 Maneuver	215	-	-	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	535	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1025	-	307	-	-
HCM Lane V/C Ratio	0.001	-	0.008	-	-
HCM Control Delay (s)	8.5	0	16.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	10	50	40	0	20	50	1180	50	30	900	20
Future Volume (veh/h)	30	10	50	40	0	20	50	1180	50	30	900	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	31	10	51	41	0	20	51	1204	51	31	918	20
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	23	89	271	6	53	79	1847	78	53	1838	40
Arrive On Green	0.10	0.10	0.10	0.10	0.00	0.10	0.04	0.53	0.53	0.03	0.52	0.52
Sat Flow, veh/h	487	233	896	1024	59	528	1774	3460	146	1774	3542	77
Grp Volume(v), veh/h	92	0	0	61	0	0	51	615	640	31	459	479
Grp Sat Flow(s),veh/h/ln	1616	0	0	1611	0	0	1774	1770	1837	1774	1770	1849
Q Serve(g_s), s	0.7	0.0	0.0	0.0	0.0	0.0	1.0	8.9	8.9	0.6	6.0	6.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.1	0.0	0.0	1.0	8.9	8.9	0.6	6.0	6.0
Prop In Lane	0.34		0.55	0.67		0.33	1.00		0.08	1.00		0.04
Lane Grp Cap(c), veh/h	296	0	0	329	0	0	79	944	980	53	918	959
V/C Ratio(X)	0.31	0.00	0.00	0.19	0.00	0.00	0.65	0.65	0.65	0.59	0.50	0.50
Avail Cap(c_a), veh/h	1006	0	0	980	0	0	249	944	980	199	918	959
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	0.0	14.9	0.0	0.0	16.7	5.9	5.9	17.1	5.6	5.6
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.0	0.0	8.5	3.5	3.4	10.0	1.9	1.9
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	0.0	0.6	0.0	0.0	0.7	5.0	5.2	0.4	3.3	3.4
LnGrp Delay(d),s/veh	15.8	0.0	0.0	15.2	0.0	0.0	25.3	9.4	9.3	27.1	7.5	7.4
LnGrp LOS	B			B			C	A	A	C	A	A
Approach Vol, veh/h		92			61			1306			969	
Approach Delay, s/veh		15.8			15.2			10.0			8.1	
Approach LOS		B			B			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.5	5.6	22.5		7.5	5.1	23.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		20.0	5.0	18.0		20.0	4.0	19.0				
Max Q Clear Time (g_c+I1), s		3.8	3.0	8.0		3.1	2.6	10.9				
Green Ext Time (p_c), s		0.7	0.0	7.8		0.7	0.0	6.5				
Intersection Summary												
HCM 2010 Ctrl Delay			9.6									
HCM 2010 LOS			A									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	1330	510	180	1330	210	610	630	210	280	530	140
Future Volume (veh/h)	200	1330	510	180	1330	210	610	630	210	280	530	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1788	1900	1900	1900	1895	1900	1900	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	204	1357	520	184	1357	214	622	643	214	286	541	143
Adj No. of Lanes	1	2	1	1	2	0	2	2	1	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	0	0	0	0	0	0	2	0	2	2	2
Cap, veh/h	199	1475	942	211	1275	199	614	649	308	281	462	122
Arrive On Green	0.12	0.41	0.41	0.12	0.41	0.41	0.17	0.18	0.18	0.16	0.17	0.17
Sat Flow, veh/h	1703	3610	1615	1810	3122	487	3510	3539	1680	1774	2773	730
Grp Volume(v), veh/h	204	1357	520	184	777	794	622	643	214	286	344	340
Grp Sat Flow(s),veh/h/ln	1703	1805	1615	1810	1800	1809	1755	1770	1680	1774	1770	1734
Q Serve(g_s), s	14.0	42.7	23.7	12.0	49.0	49.0	21.0	21.8	14.3	19.0	20.0	20.0
Cycle Q Clear(g_c), s	14.0	42.7	23.7	12.0	49.0	49.0	21.0	21.8	14.3	19.0	20.0	20.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.42
Lane Grp Cap(c), veh/h	199	1475	942	211	735	739	614	649	308	281	295	289
V/C Ratio(X)	1.03	0.92	0.55	0.87	1.06	1.08	1.01	0.99	0.69	1.02	1.17	1.18
Avail Cap(c_a), veh/h	199	1475	942	211	735	739	614	649	308	281	295	289
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)	0.09	0.09	0.09	0.23	0.23	0.23	0.09	0.09	0.09	0.93	0.93	0.93
Uniform Delay (d), s/veh	53.0	33.6	15.3	52.1	35.5	35.5	49.5	48.9	45.9	50.5	50.0	50.0
Incr Delay (d2), s/veh	26.3	1.2	0.2	9.4	33.7	40.7	14.1	8.6	0.6	56.4	104.1	107.2
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	21.5	10.6	6.5	31.2	32.8	11.4	11.4	6.7	13.7	18.3	18.2
LnGrp Delay(d),s/veh	79.5	34.9	15.6	61.6	69.2	76.2	63.6	57.5	46.5	107.0	154.1	157.2
LnGrp LOS	F	C	B	E	F	F	F	E	D	F	F	F
Approach Vol, veh/h	2081		1755				1479		970			
Approach Delay, s/veh	34.4		71.5				58.5		141.3			
Approach LOS	C		E				E		F			
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	18.0	53.0	25.0	24.0	18.0	53.0	23.0	26.0				
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	14.0	49.0	21.0	20.0	14.0	49.0	19.0	22.0				
Max Q Clear Time (g_c+I1), s	14.0	44.7	23.0	22.0	16.0	51.0	21.0	23.8				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	66.9											
HCM 2010 LOS	E											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	8	413	50	10	30	413	1200	30	10	1070	66
Future Volume (veh/h)	68	8	413	50	10	30	413	1200	30	10	1070	66
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1937	1863	1900	1937	1900	1863	1863	1976	1863	1863	1976
Adj Flow Rate, veh/h	73	9	444	54	11	32	444	1290	32	11	1151	71
Adj No. of Lanes	1	1	1	0	1	0	2	2	0	1	3	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	258	607	496	147	31	45	583	1732	43	20	1629	100
Arrive On Green	0.15	0.31	0.31	0.11	0.11	0.11	0.17	0.49	0.49	0.01	0.33	0.33
Sat Flow, veh/h	1774	1937	1583	575	289	426	3442	3529	88	1774	4898	302
Grp Volume(v), veh/h	73	9	444	97	0	0	444	646	676	11	797	425
Grp Sat Flow(s),veh/h/ln	1774	1937	1583	1290	0	0	1721	1770	1847	1774	1695	1809
Q Serve(g_s), s	2.4	0.2	17.4	3.6	0.0	0.0	8.0	19.1	19.1	0.4	13.3	13.3
Cycle Q Clear(g_c), s	2.4	0.2	17.4	4.5	0.0	0.0	8.0	19.1	19.1	0.4	13.3	13.3
Prop In Lane	1.00		1.00	0.56		0.33	1.00		0.05	1.00		0.17
Lane Grp Cap(c), veh/h	258	607	496	224	0	0	583	869	907	20	1128	602
V/C Ratio(X)	0.28	0.01	0.89	0.43	0.00	0.00	0.76	0.74	0.75	0.56	0.71	0.71
Avail Cap(c_a), veh/h	258	774	633	428	0	0	953	869	907	436	1407	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	15.4	21.3	27.8	0.0	0.0	25.8	13.3	13.3	32.0	18.9	18.9
Incr Delay (d2), s/veh	0.6	0.0	12.8	1.3	0.0	0.0	2.1	3.5	3.4	22.5	1.2	2.3
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	1.2	0.1	9.4	1.8	0.0	0.0	3.9	10.0	10.4	0.3	6.4	7.0
LnGrp Delay(d),s/veh	25.4	15.4	34.1	29.1	0.0	0.0	27.9	16.8	16.7	54.5	20.1	21.2
LnGrp LOS	C	B	C	C			C	B	B	D	C	C
Approach Vol, veh/h		526			97			1766			1233	
Approach Delay, s/veh		32.6			29.1			19.5			20.8	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		24.4	15.0	25.6	13.5	10.9	4.7	35.9				
Change Period (Y+Rc), s		4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s		26.0	18.0	27.0	4.0	18.0	16.0	29.0				
Max Q Clear Time (g_c+I1), s		19.4	10.0	15.3	4.4	6.5	2.4	21.1				
Green Ext Time (p_c), s		1.0	1.0	6.3	0.0	0.4	0.0	6.9				
Intersection Summary												
HCM 2010 Ctrl Delay			22.1									
HCM 2010 LOS			C									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	1570	50	0	1470
Future Vol, veh/h	0	10	1570	50	0	1470
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	12	1892	60	0	1771
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	976	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	218	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	218	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	22.5	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	- 218	-			
HCM Lane V/C Ratio	-	- 0.055	-			
HCM Control Delay (s)	-	- 22.5	-			
HCM Lane LOS	-	- C	-			
HCM 95th %tile Q(veh)	-	- 0.2	-			

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	220	1	430	440	960	0	0	900	620
Future Volume (veh/h)	0	0	0	220	1	430	440	960	0	0	900	620
Number				1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				227	162	336	454	990	0	0	928	639
Adj No. of Lanes				0	1	1	2	2	0	0	3	1
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				253	181	379	540	2408	0	0	2459	765
Arrive On Green				0.24	0.24	0.24	0.16	0.68	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1056	754	1583	3442	3632	0	0	5253	1583
Grp Volume(v), veh/h				389	0	336	454	990	0	0	928	639
Grp Sat Flow(s),veh/h/ln				1810	0	1583	1721	1770	0	0	1695	1583
Q Serve(g_s), s				20.8	0.0	20.5	12.8	12.4	0.0	0.0	11.5	35.0
Cycle Q Clear(g_c), s				20.8	0.0	20.5	12.8	12.4	0.0	0.0	11.5	35.0
Prop In Lane				0.58		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				434	0	379	540	2408	0	0	2459	765
V/C Ratio(X)				0.90	0.00	0.89	0.84	0.41	0.00	0.00	0.38	0.83
Avail Cap(c_a), veh/h				471	0	412	723	2408	0	0	2459	765
HCM Platoon Ratio				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	0.65	0.65	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.8	0.0	36.7	40.9	7.1	0.0	0.0	16.3	22.4
Incr Delay (d2), s/veh				18.8	0.0	19.1	4.4	0.3	0.0	0.0	0.4	10.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.6	0.0	11.0	6.4	6.2	0.0	0.0	5.5	17.5
LnGrp Delay(d),s/veh				55.6	0.0	55.8	45.4	7.4	0.0	0.0	16.8	32.8
LnGrp LOS				E		E	D	A			B	C
Approach Vol, veh/h					725			1444			1567	
Approach Delay, s/veh					55.7			19.4			23.3	
Approach LOS					E			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			19.7	52.3		28.0		72.0				
Change Period (Y+Rc), s			4.0	4.0		4.0		4.0				
Max Green Setting (Gmax), s			21.0	41.0		26.0		66.0				
Max Q Clear Time (g_c+I1), s			14.8	37.0		22.8		14.4				
Green Ext Time (p_c), s			0.9	3.6		1.1		26.8				
Intersection Summary												
HCM 2010 Ctrl Delay			28.1									
HCM 2010 LOS			C									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (veh/h)	630	10	670	0	0	0	0	300	390	510	560	0
Future Volume (veh/h)	630	10	670	0	0	0	0	300	390	510	560	0
Number	5	2	12				3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	677	11	720				0	323	419	548	602	0
Adj No. of Lanes	0	1	1				0	3	0	1	3	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	611	10	554				0	678	317	532	2797	0
Arrive On Green	0.35	0.35	0.35				0.00	0.07	0.07	0.30	0.55	0.00
Sat Flow, veh/h	1747	28	1583				0	3558	1583	1774	5253	0
Grp Volume(v), veh/h	688	0	720				0	323	419	548	602	0
Grp Sat Flow(s),veh/h/ln	1775	0	1583				0	1695	1583	1774	1695	0
Q Serve(g_s), s	28.0	0.0	28.0				0.0	7.4	16.0	24.0	4.8	0.0
Cycle Q Clear(g_c), s	28.0	0.0	28.0				0.0	7.4	16.0	24.0	4.8	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	621	0	554				0	678	317	532	2797	0
V/C Ratio(X)	1.11	0.00	1.30				0.00	0.48	1.32	1.03	0.22	0.00
Avail Cap(c_a), veh/h	621	0	554				0	678	317	532	2797	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	0.31	0.31	0.81	0.81	0.00
Uniform Delay (d), s/veh	26.0	0.0	26.0				0.0	33.3	37.4	28.0	9.2	0.0
Incr Delay (d2), s/veh	69.1	0.0	147.5				0.0	0.7	152.3	43.0	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
%ile BackOfQ(50%),veh/ln	25.6	0.0	34.9				0.0	3.5	20.4	18.0	2.3	0.0
LnGrp Delay(d),s/veh	95.1	0.0	173.5				0.0	34.1	189.6	71.0	9.3	0.0
LnGrp LOS	F		F					C	F	F	A	
Approach Vol, veh/h		1408						742			1150	
Approach Delay, s/veh		135.2						121.9			38.7	
Approach LOS		F						F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		32.0		48.0			28.0	20.0				
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0				
Max Green Setting (Gmax), s		28.0		44.0			24.0	16.0				
Max Q Clear Time (g_c+l1), s		30.0		6.8			26.0	18.0				
Green Ext Time (p_c), s		0.0		10.7			0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			98.6									
HCM 2010 LOS			F									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	530	90	60	330	280	60	680	80	410	980	220
Future Volume (veh/h)	270	530	90	60	330	280	60	680	80	410	980	220
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	310	609	103	69	379	322	69	782	92	471	1126	253
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	910	154	88	365	307	89	981	115	421	2034	633
Arrive On Green	0.15	0.30	0.30	0.05	0.20	0.20	0.05	0.21	0.21	0.47	0.80	0.80
Sat Flow, veh/h	1774	3031	512	1774	1827	1535	1774	4618	540	1774	5085	1583
Grp Volume(v), veh/h	310	355	357	69	367	334	69	573	301	471	1126	253
Grp Sat Flow(s),veh/h/ln	1774	1770	1772	1774	1770	1592	1774	1695	1767	1774	1695	1583
Q Serve(g_s), s	12.0	14.1	14.1	3.1	16.0	16.0	3.1	12.8	12.9	19.0	6.4	3.8
Cycle Q Clear(g_c), s	12.0	14.1	14.1	3.1	16.0	16.0	3.1	12.8	12.9	19.0	6.4	3.8
Prop In Lane	1.00		0.29	1.00		0.96	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	266	531	532	88	354	318	89	720	376	421	2034	633
V/C Ratio(X)	1.16	0.67	0.67	0.78	1.04	1.05	0.78	0.80	0.80	1.12	0.55	0.40
Avail Cap(c_a), veh/h	266	531	532	111	354	318	177	720	376	421	2034	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.76	0.76	0.76
Uniform Delay (d), s/veh	34.0	24.5	24.5	37.6	32.0	32.0	37.6	29.9	29.9	21.0	5.4	5.2
Incr Delay (d2), s/veh	107.3	3.2	3.3	23.9	57.8	63.8	12.7	8.3	15.5	74.8	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	7.3	7.3	2.1	13.4	12.6	1.8	6.8	7.9	17.9	2.8	1.8
LnGrp Delay(d),s/veh	141.3	27.7	27.8	61.5	89.8	95.8	50.3	38.2	45.4	95.8	6.3	6.6
LnGrp LOS	F	C	C	E	F	F	D	D	D	F	A	A
Approach Vol, veh/h	1022		770				943				1850	
Approach Delay, s/veh	62.2		89.9				41.4				29.1	
Approach LOS	E		F				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+Rc), s	8.0	28.0	8.0	36.0	16.0	20.0	23.0	21.0				
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	5.0	23.0	8.0	28.0	12.0	16.0	19.0	17.0				
Max Q Clear Time (g_c+I1), s	5.1	16.1	5.1	8.4	14.0	18.0	21.0	14.9				
Green Ext Time (p_c), s	0.0	4.5	0.0	13.3	0.0	0.0	0.0	1.8				
Intersection Summary												
HCM 2010 Ctrl Delay	49.2											
HCM 2010 LOS	D											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	210	40	30	390	110	10	340	20	180	790	160
Future Volume (veh/h)	90	210	40	30	390	110	10	340	20	180	790	160
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	110	256	49	37	476	134	12	415	24	220	963	195
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	853	161	53	649	181	21	1416	81	268	1813	366
Arrive On Green	0.08	0.29	0.29	0.03	0.24	0.24	0.01	0.29	0.29	0.15	0.43	0.43
Sat Flow, veh/h	1774	2973	561	1774	2733	764	1774	4921	282	1774	4245	857
Grp Volume(v), veh/h	110	151	154	37	307	303	12	285	154	220	769	389
Grp Sat Flow(s),veh/h/ln	1774	1770	1764	1774	1770	1728	1774	1695	1813	1774	1695	1711
Q Serve(g_s), s	4.0	4.4	4.5	1.4	10.5	10.6	0.4	4.3	4.3	7.9	11.0	11.1
Cycle Q Clear(g_c), s	4.0	4.4	4.5	1.4	10.5	10.6	0.4	4.3	4.3	7.9	11.0	11.1
Prop In Lane	1.00		0.32	1.00		0.44	1.00		0.16	1.00		0.50
Lane Grp Cap(c), veh/h	141	508	506	53	420	410	21	976	522	268	1448	731
V/C Ratio(X)	0.78	0.30	0.30	0.70	0.73	0.74	0.56	0.29	0.30	0.82	0.53	0.53
Avail Cap(c_a), veh/h	216	594	592	135	513	501	108	976	522	379	1448	731
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	18.2	18.3	31.5	23.1	23.1	32.2	18.2	18.2	27.0	13.9	13.9
Incr Delay (d2), s/veh	9.4	0.3	0.3	15.2	4.2	4.5	21.4	0.8	1.4	9.4	1.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.2	2.2	0.9	5.6	5.6	0.3	2.1	2.4	4.5	5.4	5.8
LnGrp Delay(d),s/veh	39.0	18.5	18.6	46.7	27.3	27.7	53.6	18.9	19.6	36.3	15.3	16.7
LnGrp LOS	D	B	B	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		415			647			451			1378	
Approach Delay, s/veh		24.0			28.6			20.1			19.1	
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+Rc), s	6.0	22.8	4.8	32.0	9.2	19.6	13.9	22.9				
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	5.0	22.0	4.0	28.0	8.0	19.0	14.0	18.0				
Max Q Clear Time (g_c+I1), s	3.4	6.5	2.4	13.1	6.0	12.6	9.9	6.3				
Green Ext Time (p_c), s	0.0	5.1	0.0	8.4	0.0	2.9	0.2	7.1				
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)	200	2220	140	90	1760	100	110	310	50	130	350	300
Future Volume (veh/h)	200	2220	140	90	1760	100	110	310	50	130	350	300
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	220	2440	154	99	1934	110	121	341	55	143	385	330
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	2188	137	71	1953	110	95	367	59	154	279	237
Arrive On Green	0.11	0.65	0.65	0.04	0.57	0.57	0.05	0.12	0.12	0.09	0.15	0.15
Sat Flow, veh/h	1774	3384	211	1774	3407	192	1774	3058	489	1774	1818	1542
Grp Volume(v), veh/h	220	1264	1330	99	996	1048	121	196	200	143	375	340
Grp Sat Flow(s),veh/h/ln	1774	1770	1825	1774	1770	1829	1774	1770	1777	1774	1770	1591
Q Serve(g_s), s	17.0	97.0	97.0	6.0	82.4	85.9	8.0	16.4	16.7	12.0	23.0	23.0
Cycle Q Clear(g_c), s	17.0	97.0	97.0	6.0	82.4	85.9	8.0	16.4	16.7	12.0	23.0	23.0
Prop In Lane	1.00		0.12	1.00		0.10	1.00		0.27	1.00		0.97
Lane Grp Cap(c), veh/h	201	1144	1180	71	1015	1049	95	212	213	154	271	244
V/C Ratio(X)	1.09	1.10	1.13	1.40	0.98	1.00	1.28	0.92	0.94	0.93	1.38	1.40
Avail Cap(c_a), veh/h	201	1144	1180	71	1015	1049	95	212	213	154	271	244
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	26.5	26.5	72.0	31.2	32.0	71.0	65.3	65.4	68.0	63.5	63.5
Incr Delay (d2), s/veh	90.9	60.0	68.4	243.3	23.7	27.7	184.7	40.9	44.5	52.2	192.8	200.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	66.1	71.0	7.7	46.8	51.2	8.8	10.5	10.9	8.1	25.8	23.7
LnGrp Delay(d),s/veh	157.4	86.5	94.9	315.3	55.0	59.7	255.7	106.2	110.0	120.2	256.3	264.4
LnGrp LOS	F	F	F	F	D	E	F	F	F	F	F	F
Approach Vol, veh/h	2814					2143		517			858	
Approach Delay, s/veh	96.0					69.3		142.7			236.9	
Approach LOS	F					E		F			F	
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	10.0	101.0	12.0	27.0	21.0	90.0	17.0	22.0				
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	6.0	97.0	8.0	23.0	17.0	86.0	13.0	18.0				
Max Q Clear Time (g_c+I1), s	8.0	99.0	10.0	25.0	19.0	87.9	14.0	18.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			109.9									
HCM 2010 LOS			F									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	2380	50	20	1960	30	20	20	10	10	20	40
Future Volume (veh/h)	80	2380	50	20	1960	30	20	20	10	10	20	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	83	2479	52	21	2042	31	21	21	10	10	21	42
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	2721	57	170	2739	41	143	60	25	93	40	72
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.07	0.07	0.07	0.07	0.07	0.07
Sat Flow, veh/h	200	3545	74	127	3569	54	582	794	328	169	537	957
Grp Volume(v), veh/h	83	1233	1298	21	1010	1063	52	0	0	73	0	0
Grp Sat Flow(s),veh/h/ln	200	1770	1850	127	1770	1853	1704	0	0	1663	0	0
Q Serve(g_s), s	19.7	27.1	27.8	7.9	15.7	15.9	0.0	0.0	0.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	35.6	27.1	27.8	35.6	15.7	15.9	1.4	0.0	0.0	2.1	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.03	0.40		0.19	0.14		0.58
Lane Grp Cap(c), veh/h	232	1358	1420	170	1358	1422	227	0	0	205	0	0
V/C Ratio(X)	0.36	0.91	0.91	0.12	0.74	0.75	0.23	0.00	0.00	0.36	0.00	0.00
Avail Cap(c_a), veh/h	232	1358	1420	170	1358	1422	663	0	0	657	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	12.9	4.5	4.6	18.5	3.2	3.2	22.4	0.0	0.0	22.7	0.0	0.0
Incr Delay (d2), s/veh	0.9	9.1	9.4	0.3	2.3	2.2	0.5	0.0	0.0	1.0	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	1.1	15.8	17.0	0.3	8.1	8.6	0.7	0.0	0.0	1.1	0.0	0.0
LnGrp Delay(d),s/veh	13.9	13.7	14.0	18.8	5.4	5.4	22.9	0.0	0.0	23.7	0.0	0.0
LnGrp LOS	B	B	B	B	A	A	C			C		
Approach Vol, veh/h	2614			2094			52			73		
Approach Delay, s/veh	13.8			5.6			22.9			23.7		
Approach LOS	B			A			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	43.0		7.8		43.0		7.8					
Change Period (Y+Rc), s	4.0		4.0		4.0		4.0					
Max Green Setting (Gmax), s	39.0		18.0		39.0		18.0					
Max Q Clear Time (g_c+I1), s	37.6		4.1		37.6		3.4					
Green Ext Time (p_c), s	1.4		0.5		1.4		0.5					
Intersection Summary												
HCM 2010 Ctrl Delay	10.5											
HCM 2010 LOS	B											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	2010	100	190	1570	90	110	280	120	90	310	80
Future Volume (veh/h)	100	2010	100	190	1570	90	110	280	120	90	310	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1824	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	2284	114	216	1784	102	125	318	136	102	352	91
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	1838	91	166	1881	107	90	348	296	121	291	75
Arrive On Green	0.08	0.52	0.52	0.09	0.54	0.54	0.05	0.18	0.18	0.07	0.20	0.20
Sat Flow, veh/h	1737	3501	173	1810	3473	197	1810	1900	1615	1810	1457	377
Grp Volume(v), veh/h	114	1168	1230	216	920	966	125	318	136	102	0	443
Grp Sat Flow(s),veh/h/ln	1737	1805	1869	1810	1805	1865	1810	1900	1615	1810	0	1834
Q Serve(g_s), s	7.8	63.0	63.0	11.0	57.2	59.1	6.0	19.7	9.0	6.7	0.0	24.0
Cycle Q Clear(g_c), s	7.8	63.0	63.0	11.0	57.2	59.1	6.0	19.7	9.0	6.7	0.0	24.0
Prop In Lane	1.00		0.09	1.00		0.11	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	130	948	981	166	978	1010	90	348	296	121	0	367
V/C Ratio(X)	0.87	1.23	1.25	1.30	0.94	0.96	1.38	0.91	0.46	0.85	0.00	1.21
Avail Cap(c_a), veh/h	130	948	981	166	978	1010	90	348	296	121	0	367
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	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.9	28.5	28.5	54.5	25.7	26.1	57.0	48.1	43.7	55.4	0.0	48.0
Incr Delay (d2), s/veh	43.7	114.0	122.3	172.8	16.4	18.6	226.4	27.5	1.1	39.5	0.0	116.5
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	5.3	61.1	65.5	13.4	32.8	35.6	8.7	13.0	4.1	4.7	0.0	24.0
LnGrp Delay(d),s/veh	98.7	142.5	150.8	227.3	42.1	44.8	283.4	75.6	44.8	94.9	0.0	164.5
LnGrp LOS	F	F	F	F	D	D	F	E	D	F		F
Approach Vol, veh/h		2512			2102			579			545	
Approach Delay, s/veh		144.6			62.4			113.2			151.5	
Approach LOS		F			E			F			F	
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	15.0	67.0	10.0	28.0	13.0	69.0	12.0	26.0				
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	11.0	63.0	6.0	24.0	9.0	65.0	8.0	22.0				
Max Q Clear Time (g_c+I1), s	13.0	65.0	8.0	26.0	9.8	61.1	8.7	21.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			112.0									
HCM 2010 LOS			F									

								
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑		↑	↑↑	↑	↑		
Traffic Volume (veh/h)	1900	130	71	1920	136	68		
Future Volume (veh/h)	1900	130	71	1920	136	68		
Number	2	12	1	6	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863		
Adj Flow Rate, veh/h	2021	138	76	2043	145	72		
Adj No. of Lanes	2	0	1	2	1	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	2594	175	95	3012	170	151		
Arrive On Green	0.77	0.77	0.05	0.85	0.10	0.10		
Sat Flow, veh/h	3458	227	1774	3632	1774	1583		
Grp Volume(v), veh/h	1052	1107	76	2043	145	72		
Grp Sat Flow(s),veh/h/ln	1770	1823	1774	1770	1774	1583		
Q Serve(g_s), s	50.4	53.2	6.4	30.5	12.1	6.5		
Cycle Q Clear(g_c), s	50.4	53.2	6.4	30.5	12.1	6.5		
Prop In Lane		0.12	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	1364	1405	95	3012	170	151		
V/C Ratio(X)	0.77	0.79	0.80	0.68	0.85	0.48		
Avail Cap(c_a), veh/h	1364	1405	130	3012	225	201		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.09	0.09	0.09	0.09	1.00	1.00		
Uniform Delay (d), s/veh	9.7	10.0	70.2	3.9	66.8	64.3		
Incr Delay (d2), s/veh	0.4	0.4	2.3	0.1	21.0	2.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	24.4	26.6	3.2	14.5	6.9	2.9		
LnGrp Delay(d),s/veh	10.1	10.5	72.5	4.0	87.8	66.6		
LnGrp LOS	B	B	E	A	F	E		
Approach Vol, veh/h	2159			2119	217			
Approach Delay, s/veh	10.3			6.5	80.7			
Approach LOS	B			A	F			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.0	119.6				131.7		18.3
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	11.0	108.0				123.0		19.0
Max Q Clear Time (g_c+I1), s	8.4	55.2				32.5		14.1
Green Ext Time (p_c), s	0.0	50.8				84.8		0.3
Intersection Summary								
HCM 2010 Ctrl Delay			11.9					
HCM 2010 LOS			B					

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1340	100	80	1360	130	70	190	70	90	220	90
Future Volume (veh/h)	110	1340	100	80	1360	130	70	190	70	90	220	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	117	1426	106	85	1447	138	74	202	74	96	234	96
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1669	124	99	1559	148	95	261	95	118	268	110
Arrive On Green	0.08	0.50	0.50	0.06	0.48	0.48	0.05	0.20	0.20	0.07	0.21	0.21
Sat Flow, veh/h	1774	3341	247	1774	3268	310	1774	1302	477	1774	1256	515
Grp Volume(v), veh/h	117	752	780	85	779	806	74	0	276	96	0	330
Grp Sat Flow(s),veh/h/ln	1774	1770	1819	1774	1770	1808	1774	0	1779	1774	0	1772
Q Serve(g_s), s	5.9	33.3	33.7	4.3	37.0	37.8	3.7	0.0	13.2	4.8	0.0	16.2
Cycle Q Clear(g_c), s	5.9	33.3	33.7	4.3	37.0	37.8	3.7	0.0	13.2	4.8	0.0	16.2
Prop In Lane	1.00		0.14	1.00		0.17	1.00		0.27	1.00		0.29
Lane Grp Cap(c), veh/h	138	884	909	99	844	863	95	0	356	118	0	378
V/C Ratio(X)	0.85	0.85	0.86	0.86	0.92	0.93	0.78	0.00	0.78	0.81	0.00	0.87
Avail Cap(c_a), veh/h	138	886	911	99	846	865	99	0	356	118	0	378
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.9	19.6	19.7	42.1	22.0	22.2	42.0	0.0	34.0	41.4	0.0	34.2
Incr Delay (d2), s/veh	36.0	8.0	8.2	49.5	15.5	16.8	31.2	0.0	15.1	33.0	0.0	23.2
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	4.2	18.0	18.7	3.4	21.6	22.6	2.6	0.0	7.9	3.4	0.0	10.3
LnGrp Delay(d),s/veh	76.9	27.6	27.9	91.6	37.4	39.0	73.2	0.0	49.2	74.4	0.0	57.3
LnGrp LOS	E	C	C	F	D	D	E		D	E		E
Approach Vol, veh/h		1649			1670			350			426	
Approach Delay, s/veh		31.2			40.9			54.3			61.2	
Approach LOS		C			D			D			E	
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	9.0	48.9	8.8	23.2	11.0	46.9	10.0	22.0				
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	5.0	45.0	5.0	19.0	7.0	43.0	6.0	18.0				
Max Q Clear Time (g_c+I1), s	6.3	35.7	5.7	18.2	7.9	39.8	6.8	15.2				
Green Ext Time (p_c), s	0.0	8.7	0.0	0.3	0.0	3.1	0.0	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay				40.3								
HCM 2010 LOS				D								

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	390	410	1
Future Vol, veh/h	1	1	1	390	410	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	1	481	506	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	991	507	507	0	-	0
Stage 1	507	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	273	566	1058	-	-	-
Stage 1	605	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	273	566	1058	-	-	-
Mov Cap-2 Maneuver	273	-	-	-	-	-
Stage 1	605	-	-	-	-	-
Stage 2	619	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1058	-	368	-	-
HCM Lane V/C Ratio	0.001	-	0.007	-	-
HCM Control Delay (s)	8.4	0	14.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-