APPENDIX

C

TRAFFIC STUDY REPORT

Traffic Impact Analysis

Boulevard of the Arts & 10th Street Complete Streets Plan

Prepared for:

City of Sarasota

Prepared by:

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August 2022

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Executive Summary

This report analyzed the transportation impacts of proposed roadway improvements to the 10th Street and Boulevard of the Arts corridors. Traffic conditions under existing, future no-build, and future build scenarios with the improvements constructed were analyzed. Historic traffic data was used to calculate growth rates and project future conditions. Despite a negative trend in traffic growth over the 5-year history along US 41 (Tamiami Trail), a positive growth rate was assumed so as to analyze potential worse-case conditions.

Overall, the analysis finds that impacts to traffic along the 10th Street corridor due to the proposed lane-repurposing will be minimal when compared to the projected future no-build conditions. In many cases, the increase in delay projected at the signalized intersections amounts to a few additional seconds while the intersection at Orange Avenue is projected to experience a decrease in delay as well as an improvement in future LOS due to the proposed construction of a roundabout. Additionally, it is anticipated that no impacts to the performance of the US 41 (Tamiami Trail) intersection will occur as no roadway changes are proposed within approximately 400-feet of the existing roundabout.

Along the Boulevard of the Arts corridor there is expected to be a decrease in LOS with the change of intersection control from an all-way stop-control to a two-way stop-control at Central Avenue. This is largely due to the increased delay expected for the northbound and southbound movements. An increase in delay is also expected at the Cocoanut Avenue intersection. However, this intersection is expected to operate with a failing LOS with or without the proposed improvements. It was also noted that the historic growth rate along Boulevard of the Arts was likely driven by recent development along the corridor and, as opportunities for development decrease along the corridor, likely represents a conservative estimate of future traffic.

Overall, the proposed improvements are expected to produce limited negative impact to traffic along either the 10th Street or Boulevard of the Arts corridor. While some increases in delay are expected, the improvements are likely to provide benefits to the safety of non-motorists while also enhancing the user's experience of the study corridors.

Introduction

The City of Sarasota intends to complete a complete streets project on the 10th Street corridor from east of the US 41 (Tamiami Trail) roundabout to Orange Avenue as well as safety improvements to Boulevard of the Arts from Sarasota Bay to Orange Avenue. The 10th Street complete street project is expected to incorporate a change in the existing cross-section from a 4-lane roadway to a 2-lane roadway east of US 41 (Tamiami Trail) so as to replace excess vehicular capacity while providing enhanced facilities for non-motorists. The existing signalized intersection at 10th Street and Orange Avenue is also expected to incorporate a roundabout in the future. No changes are proposed to the lane configurations at the intersection with US 41 (Tamiami Trail). The Boulevard of the Arts complete street project is expected to result in changes to the cross-section with various treatments. Sidewalk widening is expected to occur throughout the corridor with curb extensions provided at various intersections, and the turn lane at the Cocoanut Avenue intersection is expected to be removed. Enhanced landscaping is also anticipated throughout both corridors. A conceptual plan showing the anticipated final cross-sections along both corridors is provided in **Appendix A**. The locations of the two corridors is shown in **Figure 1.** The purpose of this report is to conduct an analysis of the impacts to level of service caused by the proposed lane reduction along 10th Street and changes at the intersections along both corridors.

Existing Roadway Sections

10th Street is a major collector which provides an east-west connection from Sarasota Bay at the western end to US 301 (Washington Boulevard) at the eastern end. The current cross-section provides for a 4-lane roadway with a posted speed limit of 35-mph. Traffic signals are provided along the corridor at the intersections of Cocoanut Avenue, Central Avenue, Lemon Avenue, and Orange Avenue. Each of these intersections provides exclusive left-turn lanes in the east-west directions, except for the eastbound approach to Lemon Avenue, which provides access to the ABC 7 Sarasota station. Sidewalks and bicycle lanes are provided in each direction and street lighting is provided along the southern side of 10th Street.

Boulevard of the Arts is a local roadway, located south of 10th Street, which provides an east-west connection from Sarasota Bay at the western end to US 301 (Washington Boulevard) at the eastern end. The current cross-section provides for a 2-lane roadway which is divided by raised medians west of Cocoanut Avenue and undivided east of Cocoanut Avenue. The posted speed

limit along this corridor is 25-mph. Traffic signals are provided at the intersections of US 41 (Tamiami Trail), Lemon Avenue, and Orange Avenue. The intersections of Cocoanut Avenue and Central Avenue are currently all-way stop-controlled intersections. Sidewalks are provided in each direction of Boulevard of the Arts and bicycle lanes are provided west of Cocoanut Avenue.

Traffic Data Collection

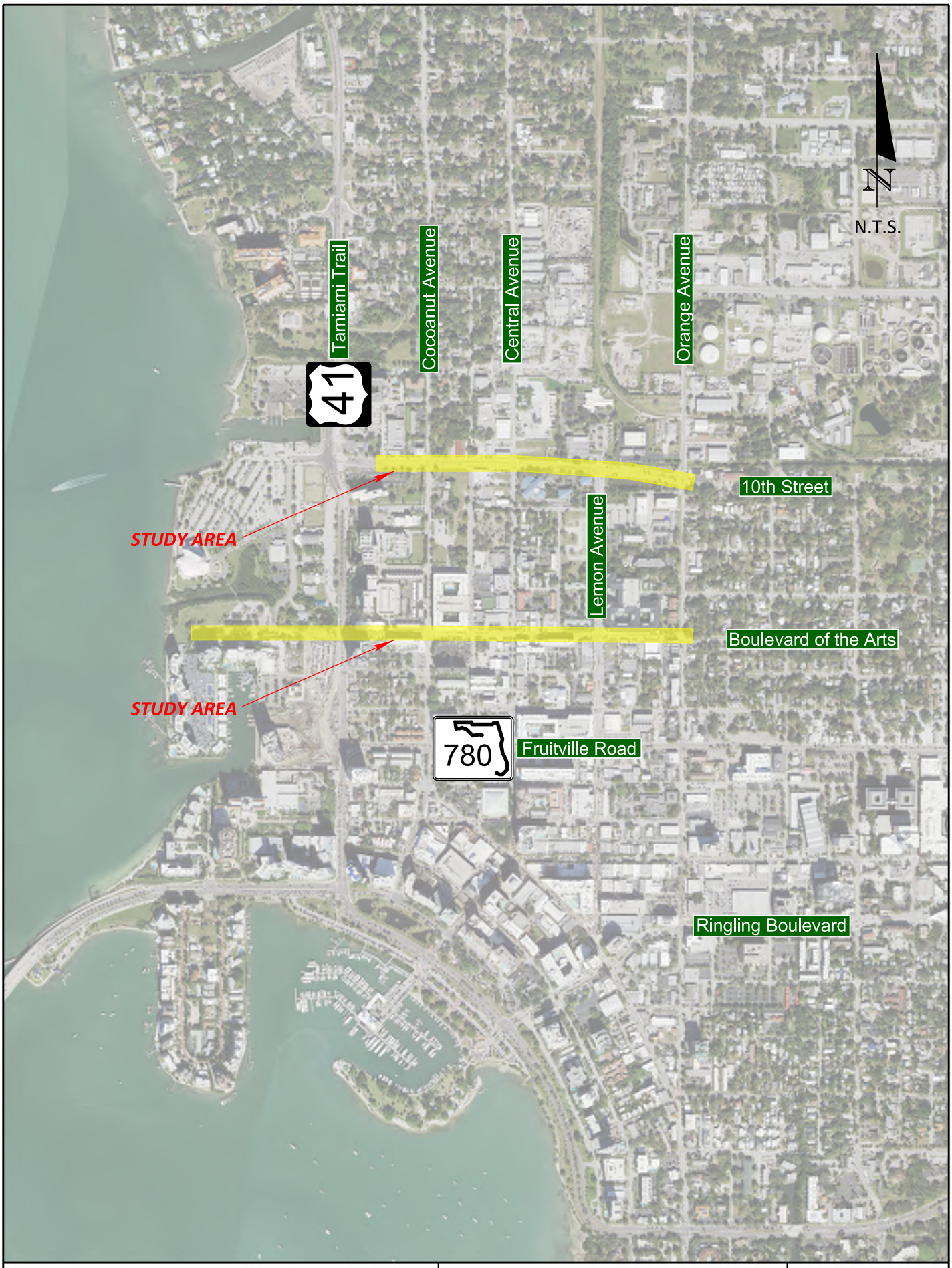
Weekday 24-hour traffic counts were collected by the City of Sarasota using the Advanced Traffic Management System (ATMS) on Wednesday, February 23, 2022 at the following intersections:

- 10th Street & Cocoanut Avenue
- 10th Street & Central Avenue
- 10th Street & Lemon Avenue
- 10th Street & Orange Avenue
- Boulevard of the Arts & US 41 (Tamiami Trail)
- Boulevard of the Arts & Orange Avenue

ATMS data provides the volume of traffic approaching an ATMS-enabled signal in each lane but does not indicate the movement of each vehicle. For approaches with shared lanes that allow multiple movements to be conducted, such as through-right lanes, the volume of vehicles conducting turning movements were distributed based on the percentage of the overall intersection volume traveling in each direction.

Because the signalized intersection of Boulevard of the Arts and Lemon Avenue, as well as the stop-controlled intersections along Boulevard of the Arts, are not on the City's ATMS network, turning movement counts collected as part of previous Traffic Impact Studies were used. The volumes indicated in the turning movement counts were then grown to estimate present and future conditions. The ATMS data and turning movement counts are provided in **Appendix B**.

The overall AM peak hour was determined to be 8:15 AM to 9:15 AM and the PM peak hour was determined to be from 4:30 PM to 5:30 PM for the 10th Street corridor. For the Boulevard of the Arts corridor the PM peak hour was determined to be from 4:45 PM to 5:45 PM. Because the turning movement counts used to supplement the ATMS data were only conducted for the PM period of 4:00 PM to 6:00 PM, no AM peak hour could be determined.



10TH STREET AND BOULEVARD OF THE ARTS TRAFFIC IMPACT ANALYSIS	*PROJECT LOCATION MAP SARASOTA COUNTY, FLORIDA*	*FIGURE 1*

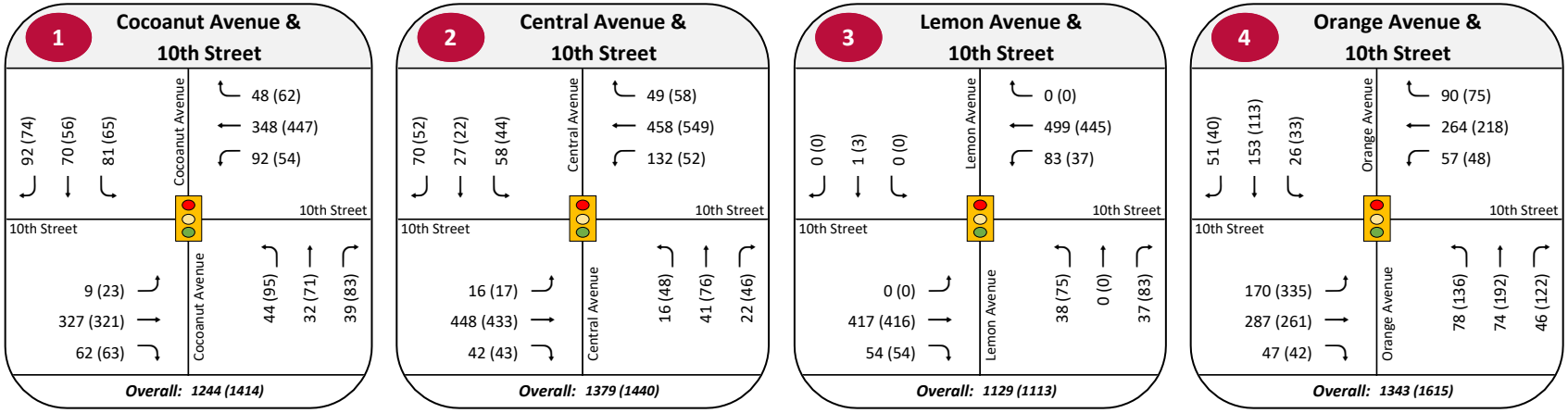
Existing Conditions Traffic Analysis

The counted intersections were analyzed for existing 2022 conditions using *Synchro 11*, which is based on the methodologies contained in the *Highway Capacity Manual (HCM), 6th Edition*. Raw turning movement volumes from both the AM peak hour and PM peak hour were adjusted using the FDOT peak season conversion factor to reflect peak season conditions. For the turning movement counts previously collected, the peak season correction factor in effect during the year the counts were collected was used. The peak season volumes were then grown to the estimated 2022 conditions. The existing 2022 AM and PM peak hour peak season turning movement volumes for the 10th Street Corridor and the Boulevard of the Arts corridor are shown in **Figures 2** and **3,** respectively. Existing signal timings were obtained from City of Sarasota staff and were programmed into the *Synchro* models for each corridor. **Table 1** below summarizes the levels of service (LOS) and delays reported by *Synchro* at the study intersections for existing peak season conditions. FDOT peak season conversion factors and volume development worksheets are included in **Appendix C**, signal timings are included in **Appendix D**, and *Synchro* intersection analysis sheets for existing conditions are included in **Appendix E**.

Table 1: Existing Intersection Levels of Service

Corridor	Intersection	Peak Hour	Existing Level of Service and Delay (s)				
			EB	WB	NB	SB	Overall
10th Street	Cocoanut Avenue	AM	A (6.0)	A (6.3)	D (36.2)	D (42.4)	B (16.0)
		PM	A (7.3)	A (7.7)	D (40.5)	D (36.5)	B (17.3)
	Central Avenue	AM	A (0.3)	A (4.5)	D (38.6)	D (45.8)	A (9.6)
		PM	A (0.3)	A (4.7)	D (41.0)	D (44.8)	B (10.8)
	Lemon Avenue	AM	A (0.3)	A (0.0)	D (46.9)	F (101.4)	A (3.3)
		PM	A (0.3)	A (0.1)	D (48.9)	E (69.5)	A (7.3)
	Orange Avenue	AM	C (32.9)	F (83.2)	B (19.1)	C (21.2)	D (45.2)
		PM	C (31.9)	F (81.5)	C (26.8)	C (25.4)	D (40.5)
Boulevard of the Arts	US 41 (Tamiami Trail)	AM	-	-	-	-	-
		PM	E (74.7)	E (76.5)	A (5.4)	A (7.1)	B (13.0)
	Cocoanut Avenue	AM	-	-	-	-	-
		PM	C (15.5)	B (12.0)	B (13.8)	B (12.3)	B (13.9)
	Central Avenue	AM	-	-	-	-	-
		PM	B (10.6)	A (9.6)	B (10.9)	A (9.9)	B (10.4)
	Lemon Avenue	AM	-	-	-	-	-
		PM	C (24.1)	C (21.0)	A (2.3)	A (2.1)	B (11.6)
	Orange Avenue	AM	-	-	-	-	-
		PM	C (21.3)	B (20.0)	A (5.6)	A (4.7)	A (8.4)

Existing Conditions AM & PM Peak Hour Vehicle Volumes



LEGEND

Intersection ID

XX (XX) *AM (PM) Peak Hour Vehicle Volumes*

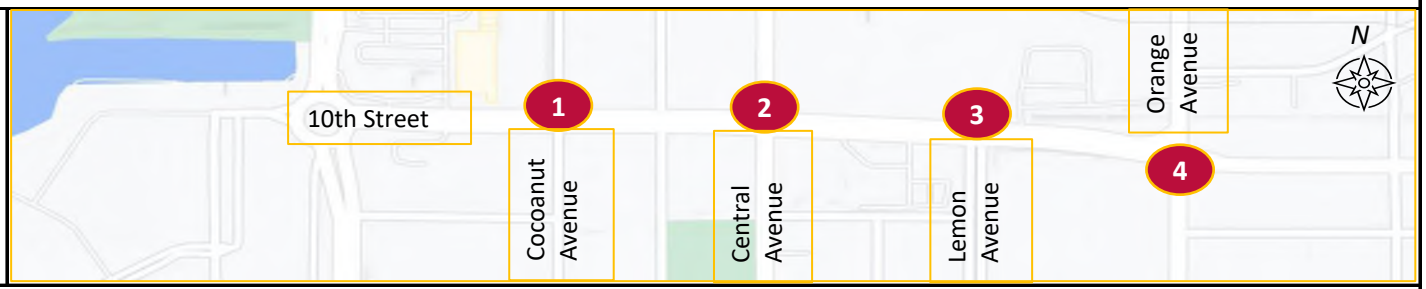


Figure 2 - 2022 Peak Season Volumes: 10th Street

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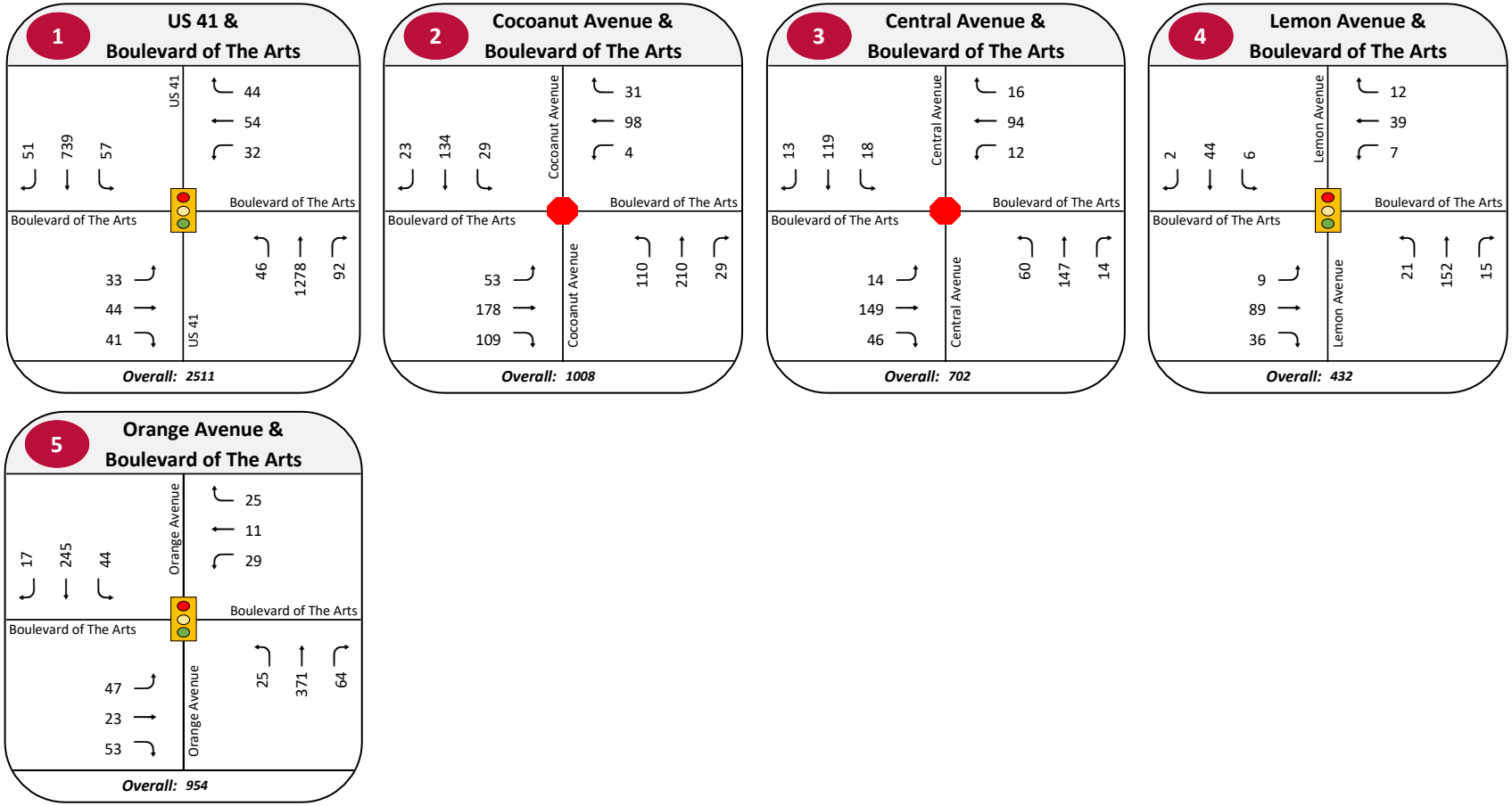
Existing Conditions PM Peak Hour Vehicle Volumes



LEGEND

Intersection ID

XX *PM Peak Hour Vehicle Volumes*

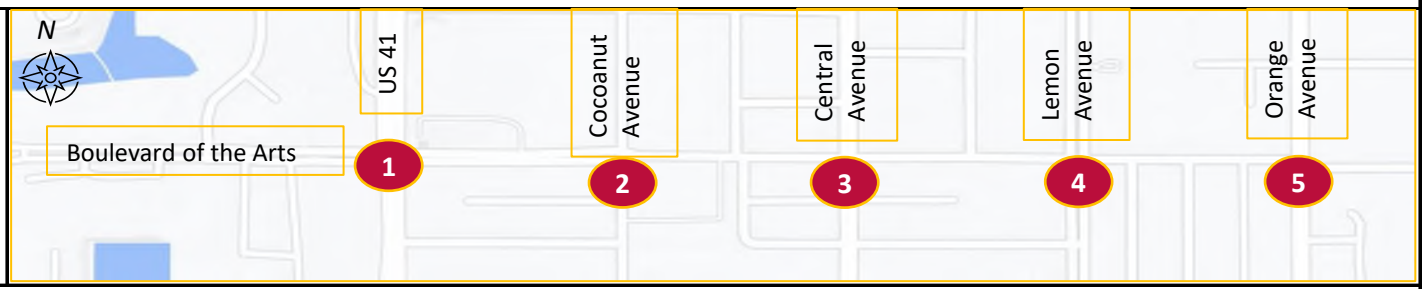


Figure 3 - 2022 Peak Season Volumes: Boulevard of the Arts

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Growth Rate Development

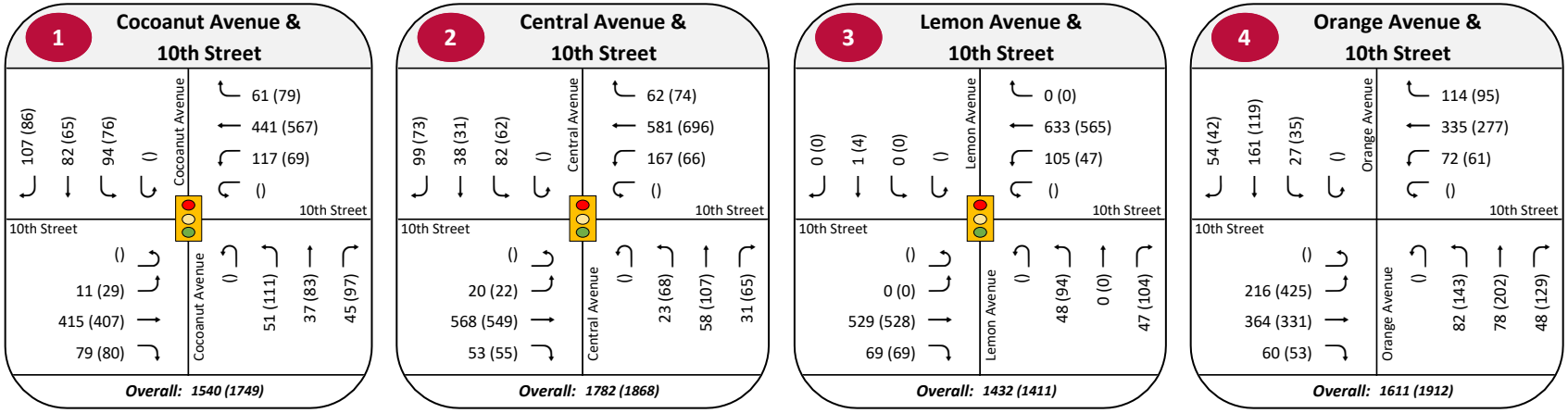
The proposed project buildout year was assumed to be 2025 with a 20-year horizon assumed to be in 2045. In order to estimate future traffic growth, historical count data from the FDOT Florida Traffic Online database was reviewed. The historical volumes were input into the FDOT Traffic Trends spreadsheet in order to determine a projected growth rate for each segment. Because Boulevard of the Arts does not contain any count stations, and thus doesn't have any historical Annual Average Daily Traffic (AADT) counts on the Florida Traffic Online database, counts from the previously conducted Traffic Impact Studies were used to calculate estimated AADTs for use in the Trends spreadsheet. The trend growth rate analysis is summarized in **Table 2**. The FDOT Traffic Online historical AADT counts are included in **Appendix F** and the trend spreadsheet outputs are included in **Appendix G**.

Table 2: Trend Growth Rates Based on Historic AADT Volume

Roadway Segment	Trend Compounded Annual Growth Rate (2020 to Design Year)
10th Street - US 41 to Orange Avenue	1.04%
Boulevard of the Arts - US 41 to Orange Avenue	3.15%
US 41 - south of Boulevard of the Arts to north of 10th Street	-0.33%
Cocoanut Avenue - south of Boulevard of the Arts to north of 10th Street	0.67%
Central Avenue - south of Boulevard of the Arts to north of 10th Street	1.51%
Orange Avenue - south of Boulevard of the Arts to north of 10th Street	0.23%

As shown in **Table 2**, the historic AADT counts along US 41 (Tamiami Trail) showed a negative growth rate. However, to provide a conservative analysis, a growth rate of 1.0% was assumed when projecting future-year traffic conditions along US 41 (Tamiami Trail). No count stations are present along Lemon Avenue so a growth rate could not be estimated. A growth rate of 1.0% was therefore assumed along Lemon Avenue. It should also be noted that the growth rate calculated along the Boulevard of the Arts corridor was likely driven by recent development around the corridor and is likely conservative due to there being less available land for future development.

Build Alternative 1 AM & PM Peak Hour Vehicle Volumes



LEGEND

Intersection ID

XX (XX) *AM (PM) Peak Hour Vehicle Volumes*

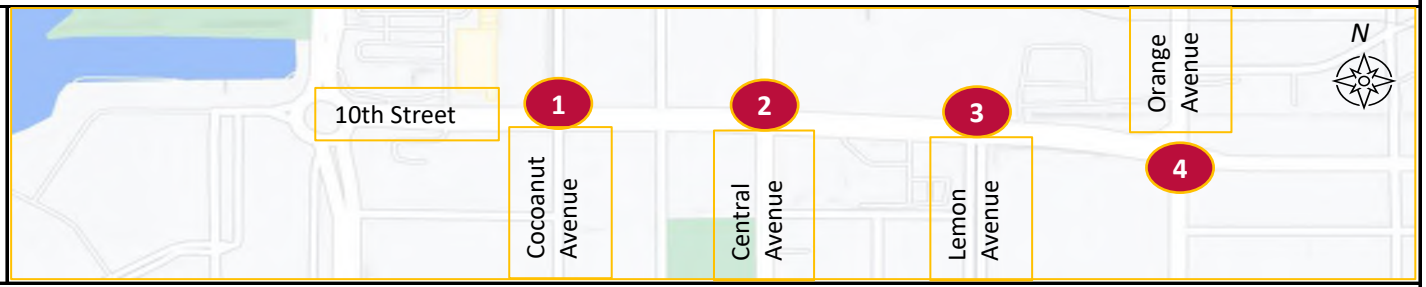


Figure 4 - 2045 Peak Season Volumes: 10th Street

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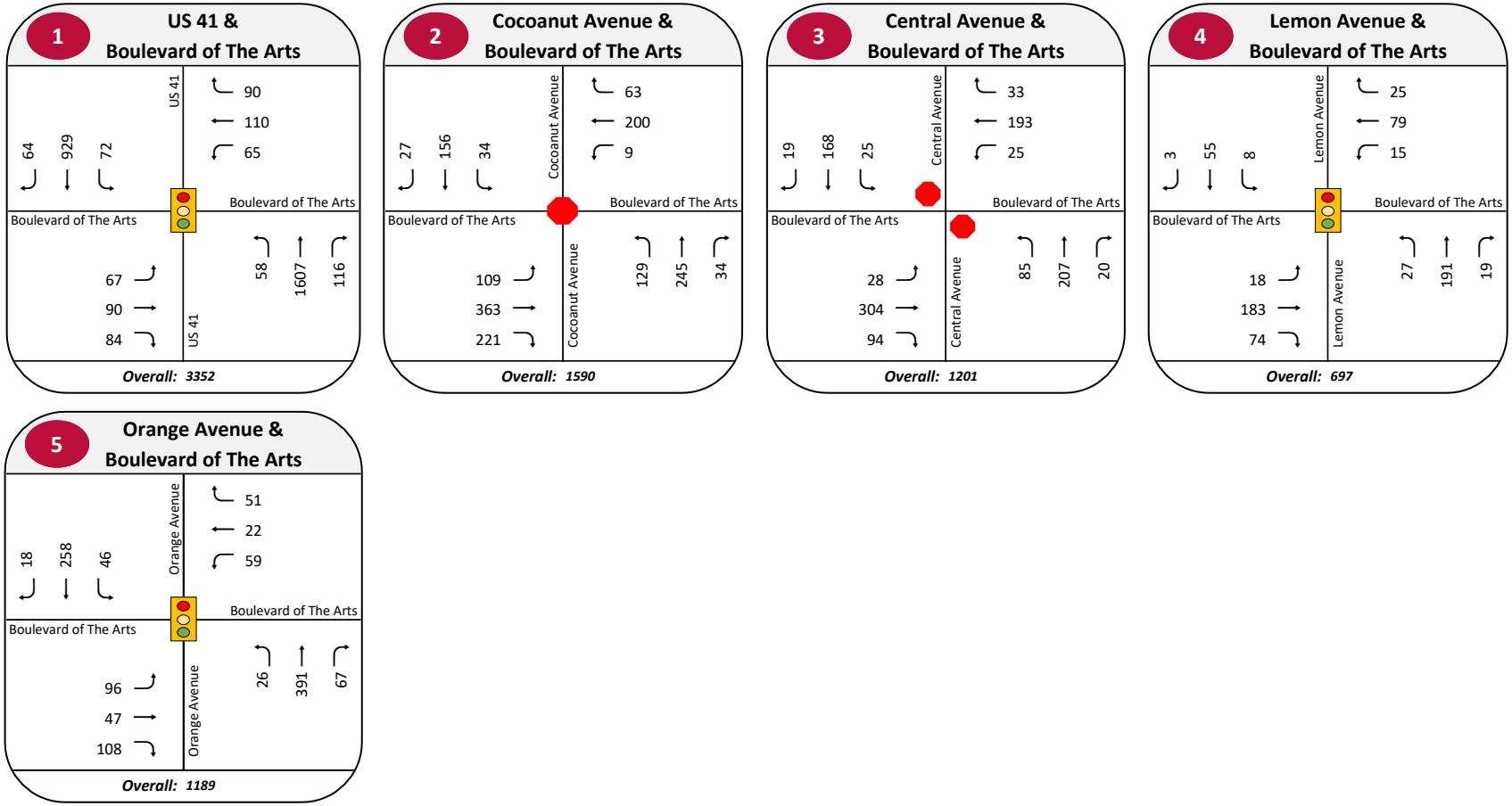
Build Alternative 1 PM Peak Hour Vehicle Volumes



LEGEND

Intersection ID

XX *PM Peak Hour Vehicle Volumes*

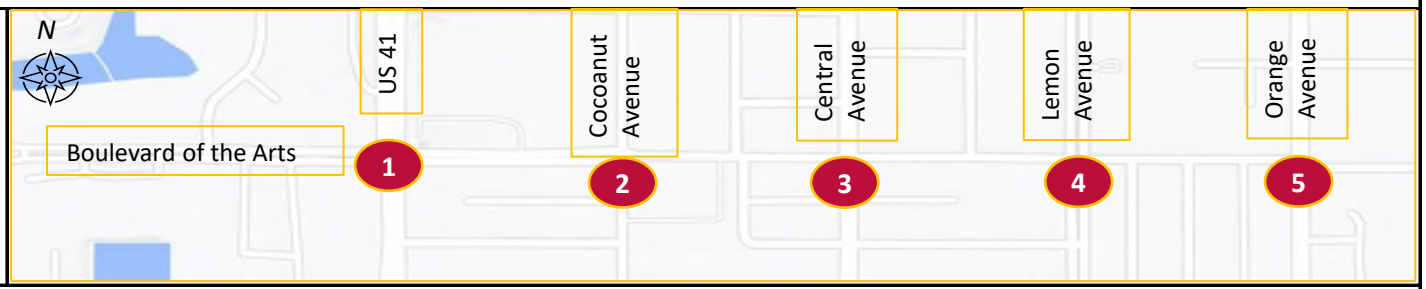


Figure 5 - 2045 Peak Season Volumes: Boulevard of the Arts

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Future Conditions Traffic Analysis

In order to assess the impacts of the proposed changes along the 10th Street and Boulevard of the Arts corridors, the existing 2022 peak hour peak season turning movement volumes were grown to the projected 2045 peak hour peak season volumes using the previously developed growth rates along each roadway. The volume development worksheets are provided in **Appendix C.** The projected 2045 traffic volumes along 10th Street are shown in **Figure 4** and the projected 2045 traffic volumes along Boulevard of the Arts are shown in **Figure 5**. The 2045 volumes were then input into the *Synchro 11* models developed for the corridors under two scenarios, one "No-Build" scenario which contained the existing cross-sections along each road, and one "Build" scenario which contained the proposed changes to the cross-sections. Under both scenarios the signal timing splits were allowed to be optimized by the *Synchro* software to account for expected recurring signal maintenance. **Table 3** summarizes the LOS and delay for the projected 2045 No-Build and Build scenarios and the *Synchro* intersection analysis sheets for future conditions are included in **Appendix H**.

Based on the results of the *Synchro* analysis, all intersections along the 10th Street corridor are projected to operate at LOS D or better under both the No-Build or Build scenarios. Additionally, the delay's which are projected at each signalized intersection only show a moderate increase from the No-Build to Build scenarios, while the intersection at Orange Avenue is expected to experience decreased delay with the proposed roundabout. Because no changes to lane configuration or geometry are proposed at the US 41 (Tamiami Trail) intersection, no degradation of performance is anticipated.

Along the Boulevard of the Arts corridor, two intersections, Cocoanut Avenue and Central Avenue, are projected to experience LOS F. Both of these intersections are currently all-way stop-controlled intersections. The intersection at Central Avenue is proposed to become a two-way stop-controlled intersection in the Build scenario, leading to a decrease in projected LOS from D to F. This decrease in LOS at the Central Avenue intersection is likely caused by an increase in delay for the northbound and southbound approaches, which will remain stop controlled. The intersection at Cocoanut Avenue is proposed to remain an all-way stop-controlled intersection. However, under the Build scenario, the left-turn lanes along the eastbound and westbound approaches are proposed to be removed. While the LOS is already projected to be at F under the no-build scenario, the removal of the left-turn lanes is anticipated to increase delay experienced

at this intersection. It should be noted that the improvements proposed along the Boulevard of the Arts corridor are expected to facilitate improved pedestrian safety as well as enhance the non-motorist experience of the corridor.

Table 3: Future Intersection Levels of Service

Corridor	Intersection	Peak Hour	No-Build Level of Service and Delay (s) [Build Level of Service and Delay (s)]				
			EB	WB	NB	SB	Overall
10th Street	Cocoanut Avenue	AM	A (7.8) [A (9.9)]	A (8.4) [B (10.8)]	C (33.6) [C (34.0)]	D (40.1) [D (40.8)]	B (16.2) [B (18.0)]
		PM	A (9.7) [B (12.3)]	B (10.4) [B (14.1)]	D (38.4) [D (41.8)]	C (33.8) [C (34.7)]	B (17.9) [C (20.8)]
	Central Avenue	AM	A (0.6) [A (1.5)]	A (7.3) [A (9.5)]	C (33.8) [C (34.0)]	D (43.5) [D (45.1)]	B (11.0) [B (12.5)]
		PM	A (0.6) [A (1.5)]	A (7.5) [B (11.4)]	D (36.6) [D (37.1)]	D (43.3) [D (45.5)]	B (12.1) [B (14.4)]
	Lemon Avenue	AM	A (0.4) [A (0.9)]	A (0.2) [A (5.6)]	D (47.4) [D (49.3)]	F (101.4) [F (101.4)]	A (3.5) [A (6.6)]
		PM	A (0.5) [A (1.2)]	A (0.1) [A(7.0)]	D (47.3) [D (48.9)]	E (65.1) [E (65.1)]	A (7.1) [B (10.6)]
	Orange Avenue	AM	B (18.4) [B (14.6)]	C (31.9) [B (14.2)]	C (32.8) [A (7.6)]	D (37.8) [A (8.7)]	C (27.2) [B (12.7)]
		PM	C (26.0) [C (21.4)]	E (56.9) [D (34.0)]	D (39.5) [C (17.9)]	C (30.6) [A (7.6)]	D (37.0) [C (22.0)]
Boulevard of the Arts	US 41 (Tamiami Trail)	AM	-	-	-	-	-
		PM	E (73.7) [E (78.6)]	E (74.8) [E (77.9)]	A (0.4) [A (0.4)]	A (0.3) [A (0.3)]	B (11.5) [B (12.1)]
	Cocoanut Avenue	AM	-	-	-	-	-
		PM	F (163.0) [F (249.3)]	D (25.5) [D (25.5)]	C (24.5) [D (25.2)]	C (19.0) [C (19.6)]	F (84.3) [F (122.2)]
	Central Avenue	AM	-	-	-	-	-
		PM	E (39.1) [A (0.5)]	C (19.1) [A (0.8)]	C (24.7) [F (225.4)]	C (17.7) [F (63.5)]	D (27.4) [F (70.1)]
	Lemon Avenue	AM	-	-	-	-	-
		PM	C (20.9) [C (20.9)]	B (17.6) [B (17.6)]	A (4.3) [A (4.3)]	A (3.8) [A (3.8)]	B (13.1) [B (13.1)]
	Orange Avenue	AM	-	-	-	-	-
		PM	B (19.3) [B (19.3)]	B (17.1) [B (17.1)]	A (8.8) [A (8.8)]	A (7.2) [A (7.2)]	B (11.5) [B (11.5)]

Daily Traffic Analysis

Because the proposed cross-section along the 10th Street corridor includes a reduction in lanes and vehicular capacity, a generalized roadway segment analysis of the annual average daily traffic (AADT) volumes was conducted to determine anticipated project impacts.

The daily service volume was calculated based on the FDOT Quality/Level of Service (QLOS) Tables and was compared to the existing 2020 AADT as reported in the FDOT Traffic Online Database. Table 1 in the QLOS Handbook provides the generalized volume thresholds for various Levels of Service on urban roadways of various cross-sections. Applying the adjustment factor for Non-State Signalized Roadways gives the calculated service volume threshold for the 10th Street corridor. **Table 4** summarizes the existing LOS and v/c ratio for 10th Street and **Appendix I** provides the Generalized Annual Average Daily Volumes from the QLOS Handbook.

Table 4: Existing Daily Traffic Volumes

Segment	Existing (2020) AADT	Four-Lane Service Volume (LOS E)	Adjusted Service Volume	Existing LOS	Existing v/c Ratio
10th Street, East of US 41	9700	33800	30420	C	0.32

The existing AADT was also analyzed against the generalized service volume for the proposed lane reduction. Applying the adjustment factors for Non-State Signalized Roadways and Exclusive Left-Turn lanes gives the calculated service volume threshold for the 10th Street corridor. **Table 5** summarizes the existing LOS and v/c ratio for 10th Street under the proposed cross-section. As shown, 10th Street is expected to operate under capacity with the proposed cross-section and existing traffic volumes.

Table 5: Existing Daily Traffic Volumes (Lane Reduction)

Segment	Existing (2020) AADT	Two-Lane Service Volume (LOS E)	Adjusted Service Volume	Existing LOS	Existing v/c Ratio
10th Street, East of US 41	9700	15600	14742	D	0.66

Using the FDOT Traffic Trends spreadsheet, the projected 2045 AADT was obtained and analyzed against the generalized service volume for the proposed lane reduction. **Table 6** summarizes the projected LOS and v/c ratio for 2045 traffic volumes on 10th Street under the proposed cross-section. As shown, the projected traffic volumes are expected to operate under capacity.

Table 6: 2045 Daily Traffic Volumes (Lane Reduction)

Segment	Projected (2045) AADT	Two-Lane Service Volume (LOS E)	Adjusted Service Volume	Projected LOS	Projected v/c Ratio
10th Street, East of US 41	12300	15600	14742	D	0.83

Peak Hour Roadway Analysis

In addition to the daily traffic analysis a peak hour roadway analysis was performed to document the performance of 10th Street under the existing conditions and the proposed lane reduction. The service volume was calculated based upon the FDOT QLOS Tables. The analysis of the lane reduction was performed for both the AM and PM peak hour periods on the 10th Street corridor.

Based upon the existing traffic data, a generalized roadway analysis was performed for the peak hour periods. As indicated in **Table 7**, the corridor operates acceptably with existing traffic volumes under both the existing and proposed cross-sections.

Table 7: Existing Volumes Peak Hour Roadway Analysis

Scenario	From	To	Peak Hour Two Service Volume			2020 Peak Hour Volumes		LOS	
			Lanes	LOS Standard	Service Volume	AM Peak Hour Volume	PM Peak Hour Volume	AM	PM
Existing Conditions (10th Street)	US 41	Central Avenue	4	E	2736	886	970	C	C
	Central Avenue	Orange Avenue	4	E	2736	1053	952	C	C
Future Conditions (10th Street)	US 41	Central Avenue	2	E	1332	886	970	D	D
	Central Avenue	Orange Avenue	2	E	1332	1053	952	D	D

As indicated in **Table 8**, the corridor is expected to operate acceptably with projected future traffic volumes under the existing cross-section. With the proposed lane reduction, the corridor is expected to exceed the generalized service volume threshold by a marginal amount during the AM peak hour period. However, as shown in **Table 3**, no intersection along the 10th Street corridor is expected to operate below a LOS D during either peak hour period.

Table 8: Future Volumes Peak Hour Roadway Analysis

Scenario	From	To	Peak Hour Two Service Volume			2045 Peak Hour Volumes		LOS	
			Lanes	LOS Standard	Service Volume	AM Peak Hour Volume	PM Peak Hour Volume	AM	PM
Existing Conditions (10th Street)	US 41	Central Avenue	4	E	2736	1124	1231	C	D
	Central Avenue	Orange Avenue	4	E	2736	1336	1209	D	D
Future Conditions (10th Street)	US 41	Central Avenue	2	E	1332	1124	1231	D	D
	Central Avenue	Orange Avenue	2	E	1332	1336	1209	F	D

Conclusion

This traffic impact analysis was conducted to assess the anticipated impact to the 10th Street and Boulevard of the Arts corridors as a result of the proposed improvements along both corridors. The analysis relied on a mixture of previous turning movement counts and current volume counts collected from the ATMS system where possible. Despite negative projected growth rates along US 41 (Tamiami Trail), a positive growth rate was assumed along each roadway so that a conservative estimate of future conditions could be obtained. The projected growth rates were then applied to the current traffic volumes to project anticipated future demand along both corridors.

As detailed in the analysis, it is anticipated that both corridors will continue to operate adequately under the proposed conditions. The lane reduction proposed to be undertaken along the 10th Street corridor is expected to cause a minor increase, less than five seconds, in delay at the existing signalized intersections. The transition of the Orange Avenue intersection from signalized control to a roundabout intersection is expected to provide a better LOS and decrease delay. Future conditions are anticipated to operate at LOS C instead of D during the PM peak hour period, with delay decreasing by approximately 15 seconds during each peak hour period. No changes are proposed within approximately 400-feet of the US 41 (Tamiami Trail) intersection, therefore no impact to performance is anticipated.

Along the Boulevard of the Arts corridor, the proposed removal of the left-turn lane at the Cocoanut Avenue intersection is expected to increase delay by approximately 38 seconds. However, this intersection is expected to operate at LOS F with or without the changes implemented.

Overall, the proposed improvements to the Boulevard of the Arts corridor will provide increased safety of non-motorist users through the construction of widened sidewalks, decreased crossing distances at intersections, and accommodation of bicyclist traffic. Additional landscaping opportunities throughout the corridor will enhance the experience of road users, while on-street parking accommodated by the reassignment of pavement previously used for turn lanes will serve to slow vehicle speeds through the corridor, thereby further improving non-motorist safety.

Appendix A:

Conceptual Corridor Plans

ENHANCED VERGE LANDSCAPE

MEDIAN LANDSCAPE

BUFFERED BIKE LANES

ENHANCED STORMWATER TREATMENT

ENHANCED STORMWATER TREATMENT

10TH STREET

SARASOTA, FLORIDA

Kimley»Horn

SHARROW

ENHANCED HARDSCAPE OPPORTUNITY

CITY FURNISHINGS OPPORTUNITIES

CANOPY TREE IN LANDSCAPE BED

CANOPY STREET TREE IN TREE GRATE

RAISED PLANTER OPPORTUNITIES

DECORATIVE SIDEWALK

BOULEVARD OF THE ARTS

SARASOTA, FLORIDA

Kimley»Horn

Appendix B:

Turning Movement Count Data

Volume/Occupancy Per Lane Report

05/23/2022

Controller: 2223 10th at Cocoanut
Flex Group: [All]

Detector Purpose : 4 **Time:** 02/23/2022 00:00:00 **To:** 02/23/2022 23:59:59

	North Bound		South Bound		East Bound					West Bound				
Date Time Range	T1	TT	T1	TT	L1	LT	T1	T2	TT	L1	LT	T1	T2	TT
02/23/2022 00:00-00:15	1	1	3	3	0	0	0	5	5	1	1	4	2	6
02/23/2022 00:15-00:30	2	2	3	3	1	1	2	4	6	3	3	2	1	3
02/23/2022 00:30-00:45	1	1	1	1	1	1	3	3	6	0	0	6	2	8
02/23/2022 00:45-01:00	2	2	0	0	0	0	1	1	2	0	0	3	0	3
02/23/2022 01:00-01:15	0	0	1	1	0	0	0	2	2	0	0	5	0	5
02/23/2022 01:15-01:30	2	2	1	1	1	1	2	1	3	0	0	4	0	4
02/23/2022 01:30-01:45	2	2	2	2	0	0	0	1	1	0	0	0	0	0
02/23/2022 01:45-02:00	2	2	0	0	1	1	1	2	3	1	1	2	1	3
02/23/2022 02:00-02:15	0	0	1	1	0	0	0	2	2	0	0	3	0	3
02/23/2022 02:15-02:30	3	3	1	1	0	0	0	1	1	1	1	2	1	3
02/23/2022 02:30-02:45	2	2	3	3	0	0	1	2	3	1	1	2	0	2
02/23/2022 02:45-03:00	0	0	2	2	0	0	0	3	3	0	0	3	0	3
02/23/2022 03:00-03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02/23/2022 03:15-03:30	2	2	1	1	0	0	0	0	0	0	0	0	1	1
02/23/2022 03:30-03:45	2	2	1	1	0	0	0	1	1	0	0	6	2	8
02/23/2022 03:45-04:00	1	1	1	1	0	0	2	4	6	2	2	0	3	3
02/23/2022 04:00-04:15	0	0	2	2	0	0	3	0	3	0	0	0	1	1
02/23/2022 04:15-04:30	0	0	1	1	0	0	2	2	4	0	0	2	3	5
02/23/2022 04:30-04:45	2	2	1	1	0	0	2	1	3	0	0	1	2	3
02/23/2022 04:45-05:00	1	1	5	5	0	0	2	5	7	0	0	5	1	6
02/23/2022 05:00-05:15	5	5	7	7	0	0	5	2	7	2	2	7	1	8
02/23/2022 05:15-05:30	2	2	5	5	0	0	2	2	4	0	0	5	1	6
02/23/2022 05:30-05:45	5	5	4	4	0	0	2	7	9	0	0	4	6	10
02/23/2022 05:45-06:00	0	0	7	7	0	0	8	8	16	1	1	5	11	16
02/23/2022 06:00-06:15	6	6	14	14	0	0	9	7	16	3	3	11	9	20
02/23/2022 06:15-06:30	3	3	19	19	1	1	11	6	17	3	3	18	14	32
02/23/2022 06:30-06:45	7	7	9	9	0	0	18	7	25	2	2	18	28	46
02/23/2022 06:45-07:00	7	7	24	24	2	2	27	19	46	4	4	27	22	49
02/23/2022 07:00-07:15	13	13	20	20	0	0	30	18	48	12	12	42	21	63
02/23/2022 07:15-07:30	10	10	40	40	3	3	37	22	59	12	12	32	27	59
02/23/2022 07:30-07:45	16	16	64	64	0	0	45	24	69	16	16	53	45	98
02/23/2022 07:45-08:00	19	19	66	66	0	0	59	26	85	17	17	39	42	81
02/23/2022 08:00-08:15	21	21	55	55	0	0	58	37	95	11	11	56	34	90
02/23/2022 08:15-08:30	24	24	58	58	0	0	55	26	81	29	29	67	41	108
02/23/2022 08:30-08:45	36	36	77	77	4	4	62	42	104	24	24	57	37	94
02/23/2022 08:45-09:00	26	26	46	46	2	2	75	33	108	21	21	59	30	89
02/23/2022 09:00-09:15	32	32	69	69	3	3	70	38	108	21	21	73	44	117
02/23/2022 09:15-09:30	29	29	47	47	0	0	79	47	126	25	25	55	54	109
02/23/2022 09:30-09:45	21	21	53	53	3	3	76	51	127	22	22	56	34	90
02/23/2022 09:45-10:00	35	35	71	71	1	1	89	50	139	26	26	61	33	94
02/23/2022 10:00-10:15	33	33	50	50	2	2	73	57	130	22	22	67	24	91
02/23/2022 10:15-10:30	28	28	53	53	4	4	76	48	124	22	22	46	23	69
02/23/2022 10:30-10:45	31	31	55	55	5	5	81	51	132	21	21	72	35	107
02/23/2022 10:45-11:00	27	27	65	65	1	1	72	47	119	23	23	68	24	92
02/23/2022 11:00-11:15	37	37	46	46	2	2	82	60	142	17	17	86	26	112
02/23/2022 11:15-11:30	36	36	55	55	6	6	83	50	133	13	13	65	23	88
02/23/2022 11:30-11:45	38	38	69	69	5	5	68	49	117	28	28	69	34	103
02/23/2022 11:45-12:00	23	23	58	58	3	3	76	60	136	19	19	75	33	108
02/23/2022 12:00-12:15	44	44	69	69	2	2	81	59	140	15	15	93	21	114
02/23/2022 12:15-12:30	49	49	47	47	1	1	68	44	112	17	17	67	21	88
02/23/2022 12:30-12:45	40	40	48	48	3	3	78	56	134	23	23	87	28	115
02/23/2022 12:45-13:00	31	31	50	50	4	4	71	55	126	20	20	73	26	99
02/23/2022 13:00-13:15	35	35	61	61	2	2	73	55	128	18	18	74	25	99
02/23/2022 13:15-13:30	37	37	46	46	3	3	71	53	124	23	23	88	24	112
02/23/2022 13:30-13:45	37	37	45	45	2	2	54	41	95	21	21	78	29	107
02/23/2022 13:45-14:00	45	45	41	41	1	1	63	35	98	21	21	70	31	101
02/23/2022 14:00-14:15	35	35	50	50	1	1	53	41	94	16	16	83	24	107
02/23/2022 14:15-14:30	53	53	54	54	5	5	55	46	101	18	18	81	36	117
02/23/2022 14:30-14:45	39	39	54	54	5	5	47	44	91	16	16	77	26	103
02/23/2022 14:45-15:00	36	36	50	50	2	2	59	49	108	17	17	91	42	133
02/23/2022 15:00-15:15	51	51	44	44	0	0	55	55	110	15	15	82	29	111
02/23/2022 15:15-15:30	53	53	49	49	5	5	47	48	95	19	19	81	25	106
02/23/2022 15:30-15:45	46	46	48	48	3	3	57	59	116	14	14	79	30	109
02/23/2022 15:45-16:00	51	51	56	56	4	4	49	43	92	19	19	96	29	125
02/23/2022 16:00-16:15	59	59	42	42	5	5	50	40	90	11	11	81	29	110
02/23/2022 16:15-16:30	57	57	54	54	5	5	53	54	107	8	8	97	21	118
02/23/2022 16:30-16:45	56	56	58	58	5	5	57	46	103	15	15	91	36	127
02/23/2022 16:45-17:00	52	52	57	57	7	7	61	48	109	15	15	87	34	121
02/23/2022 17:00-17:15	65	65	51	51	6	6	39	46	85	11	11	107	31	138
02/23/2022 17:15-17:30	84	84	35	35	6	6	45	54	99	15	15	102	37	139
02/23/2022 17:30-17:45	67	67	46	46	3	3	45	52	97	11	11	89	34	123
02/23/2022 17:45-18:00	42	42	49	49	1	1	44	39	83	10	10	78	33	111
02/23/2022 18:00-18:15	45	45	48	48	2	2	35	39	74	14	14	67	23	90
02/23/2022 18:15-18:30	36	36	38	38	2	2	38	33	71	11	11	72	35	107
02/23/2022 18:30-18:45	26	26	27	27	2	2	28	34	62	5	5	72	24	96
02/23/2022 18:45-19:00	28	28	38	38	3	3	27	34	61	11	11	75	40	115
02/23/2022 19:00-19:15	31	31	32	32	3	3	27	39	66	5	5	52	31	83
02/23/2022 19:15-19:30	21	21	25	25	3	3	23	27	50	10	10	43	18	61
02/23/2022 19:30-19:45	19	19	21	21	3	3	20	31	51	4	4	40	9	49
02/23/2022 19:45-20:00	19	19	20	20	0	0	12	17	29	3	3	33	15	48

02/23/2022 20:00-20:15	16	16	28	28	3	3	14	21	35	2	2	30	9	39
02/23/2022 20:15-20:30	17	17	10	10	0	0	12	15	27	2	2	28	9	37
02/23/2022 20:30-20:45	9	9	15	15	3	3	19	16	35	4	4	35	9	44
02/23/2022 20:45-21:00	8	8	18	18	1	1	12	16	28	2	2	31	9	40
02/23/2022 21:00-21:15	12	12	13	13	0	0	13	15	28	1	1	30	10	40
02/23/2022 21:15-21:30	16	16	9	9	1	1	14	15	29	4	4	29	8	37
02/23/2022 21:30-21:45	14	14	18	18	0	0	18	32	50	4	4	23	7	30
02/23/2022 21:45-22:00	15	15	15	15	1	1	33	68	101	2	2	14	6	20
02/23/2022 22:00-22:15	13	13	2	2	0	0	6	18	24	1	1	20	5	25
02/23/2022 22:15-22:30	17	17	6	6	0	0	10	21	31	4	4	11	9	20
02/23/2022 22:30-22:45	7	7	6	6	2	2	9	9	18	2	2	13	2	15
02/23/2022 22:45-23:00	10	10	6	6	0	0	8	13	21	2	2	12	4	16
02/23/2022 23:00-23:15	8	8	3	3	4	4	5	13	18	1	1	15	4	19
02/23/2022 23:15-23:30	3	3	8	8	0	0	8	14	22	3	3	11	0	11
02/23/2022 23:30-23:45	6	6	6	6	0	0	3	9	12	1	1	4	3	7
02/23/2022 23:45-00:00	8	8	4	4	0	0	3	2	5	2	2	6	0	6

Summary	2163	2163	2856	2856	165	165	3221	2647	5868	913	913	4141	1766	5907
Approach %	100%	100%	100%	100%	3%	3%	53%	44%	97%	13%	13%	61%	26%	87%
Intersection %	12%	12%	16%	16%	1%	1%	18%	15%	33%	5%	5%	23%	10%	33%

Volume/Occupancy Per Lane Report

05/23/2022

Controller: 2225 10th at Central
Flex Group: [All]

Detector Purpose : 4 **Time:** 02/23/2022 00:00:00 **To:** 02/23/2022 23:59:59

	North Bound				South Bound		East Bound					West Bound				
Date Time Range	L1	LT	T1	TT	T1	TT	L1	LT	T1	T2	TT	L1	LT	T1	T2	TT
02/23/2022 00:00-00:15	0	0	2	2	2	2	0	0	4	5	9	0	0	4	2	6
02/23/2022 00:15-00:30	0	0	3	3	0	0	1	1	3	4	7	0	0	6	3	9
02/23/2022 00:30-00:45	0	0	0	0	3	3	1	1	5	3	8	2	2	5	1	6
02/23/2022 00:45-01:00	1	1	1	1	3	3	0	0	1	1	2	1	1	5	0	5
02/23/2022 01:00-01:15	0	0	0	0	1	1	0	0	1	2	3	0	0	5	0	5
02/23/2022 01:15-01:30	0	0	1	1	1	1	1	1	3	1	4	0	0	3	1	4
02/23/2022 01:30-01:45	0	0	2	2	1	1	0	0	1	2	3	1	1	0	0	0
02/23/2022 01:45-02:00	1	1	1	1	3	3	1	1	1	1	2	0	0	2	0	2
02/23/2022 02:00-02:15	1	1	1	1	1	1	0	0	0	2	2	0	0	3	0	3
02/23/2022 02:15-02:30	0	0	1	1	3	3	2	2	0	1	1	1	1	2	1	3
02/23/2022 02:30-02:45	0	0	3	3	3	3	0	0	1	4	5	0	0	1	0	1
02/23/2022 02:45-03:00	1	1	2	2	0	0	0	0	0	5	5	0	0	4	0	4
02/23/2022 03:00-03:15	1	1	0	0	2	2	1	1	0	0	0	2	2	0	0	0
02/23/2022 03:15-03:30	0	0	2	2	0	0	0	0	0	1	1	1	1	0	1	1
02/23/2022 03:30-03:45	3	3	3	3	3	3	0	0	1	2	3	2	2	6	4	10
02/23/2022 03:45-04:00	0	0	1	1	2	2	0	0	5	5	10	0	0	2	4	6
02/23/2022 04:00-04:15	0	0	0	0	1	1	0	0	4	1	5	1	1	1	2	3
02/23/2022 04:15-04:30	1	1	1	1	1	1	0	0	4	1	5	0	0	3	3	6
02/23/2022 04:30-04:45	0	0	0	0	2	2	0	0	2	0	2	1	1	2	3	5
02/23/2022 04:45-05:00	0	0	0	0	3	3	0	0	6	4	10	0	0	9	1	10
02/23/2022 05:00-05:15	1	1	0	0	3	3	0	0	5	2	7	0	0	9	1	10
02/23/2022 05:15-05:30	2	2	0	0	5	5	0	0	4	2	6	0	0	4	1	5
02/23/2022 05:30-05:45	1	1	0	0	5	5	0	0	4	7	11	2	2	4	5	9
02/23/2022 05:45-06:00	0	0	1	1	4	4	0	0	6	8	14	0	0	7	12	19
02/23/2022 06:00-06:15	1	1	3	3	6	6	0	0	17	5	22	0	0	15	12	27
02/23/2022 06:15-06:30	1	1	5	5	8	8	0	0	19	9	28	3	3	20	16	36
02/23/2022 06:30-06:45	0	0	2	2	18	18	1	1	19	8	27	4	4	22	26	48
02/23/2022 06:45-07:00	3	3	1	1	14	14	0	0	40	19	59	3	3	36	28	64
02/23/2022 07:00-07:15	4	4	3	3	35	35	7	7	35	15	50	4	4	52	29	81
02/23/2022 07:15-07:30	3	3	13	13	22	22	4	4	43	22	65	9	9	40	42	82
02/23/2022 07:30-07:45	7	7	13	13	37	37	0	0	57	32	89	8	8	57	62	119
02/23/2022 07:45-08:00	4	4	16	16	38	38	0	0	61	32	93	19	19	48	57	105
02/23/2022 08:00-08:15	5	5	16	16	35	35	2	2	65	40	105	17	17	60	48	108
02/23/2022 08:15-08:30	6	6	17	17	36	36	2	2	69	27	96	40	40	74	60	134
02/23/2022 08:30-08:45	2	2	17	17	35	35	8	8	89	52	141	46	46	67	59	126
02/23/2022 08:45-09:00	3	3	19	19	58	58	6	6	101	49	150	32	32	75	49	124
02/23/2022 09:00-09:15	5	5	12	12	31	31	1	1	75	43	118	18	18	79	59	138
02/23/2022 09:15-09:30	2	2	10	10	29	29	2	2	59	48	107	17	17	68	79	147
02/23/2022 09:30-09:45	2	2	9	9	32	32	3	3	75	51	126	14	14	58	58	116
02/23/2022 09:45-10:00	4	4	11	11	40	40	2	2	85	38	123	13	13	72	57	129
02/23/2022 10:00-10:15	8	8	12	12	27	27	4	4	85	46	131	11	11	63	47	110
02/23/2022 10:15-10:30	5	5	7	7	29	29	2	2	68	49	117	4	4	51	46	97
02/23/2022 10:30-10:45	13	13	5	5	29	29	0	0	73	48	121	14	14	78	50	128
02/23/2022 10:45-11:00	7	7	9	9	37	37	5	5	63	41	104	12	12	75	46	121
02/23/2022 11:00-11:15	9	9	8	8	26	26	7	7	68	58	126	17	17	86	57	143
02/23/2022 11:15-11:30	9	9	12	12	21	21	3	3	80	57	137	10	10	71	37	108
02/23/2022 11:30-11:45	7	7	17	17	26	26	4	4	67	53	120	13	13	72	66	138
02/23/2022 11:45-12:00	7	7	20	20	34	34	7	7	76	57	133	13	13	81	49	130
02/23/2022 12:00-12:15	14	14	33	33	24	24	4	4	77	61	138	12	12	83	41	124
02/23/2022 12:15-12:30	8	8	28	28	34	34	1	1	74	48	122	12	12	80	42	122
02/23/2022 12:30-12:45	11	11	24	24	35	35	2	2	74	54	128	11	11	83	50	133
02/23/2022 12:45-13:00	12	12	15	15	45	45	4	4	58	59	117	14	14	78	51	129
02/23/2022 13:00-13:15	12	12	20	20	33	33	5	5	82	53	135	16	16	88	48	136
02/23/2022 13:15-13:30	11	11	38	38	27	27	4	4	73	59	132	21	21	84	47	131
02/23/2022 13:30-13:45	13	13	36	36	32	32	2	2	51	44	95	14	14	80	48	128
02/23/2022 13:45-14:00	3	3	16	16	29	29	5	5	73	38	111	12	12	85	50	135
02/23/2022 14:00-14:15	13	13	20	20	28	28	2	2	59	45	104	21	21	83	40	123
02/23/2022 14:15-14:30	8	8	19	19	31	31	4	4	57	55	112	12	12	80	51	131
02/23/2022 14:30-14:45	7	7	32	32	22	22	5	5	57	56	113	16	16	91	44	135
02/23/2022 14:45-15:00	11	11	33	33	31	31	5	5	60	52	112	12	12	85	57	142
02/23/2022 15:00-15:15	8	8	25	25	33	33	6	6	71	69	140	12	12	87	42	129
02/23/2022 15:15-15:30	8	8	27	27	18	18	3	3	56	65	121	21	21	87	42	129
02/23/2022 15:30-15:45	17	17	26	26	29	29	3	3	61	72	133	27	27	77	37	114
02/23/2022 15:45-16:00	13	13	32	32	25	25	9	9	86	72	158	18	18	99	53	152
02/23/2022 16:00-16:15	8	8	39	39	31	31	9	9	72	53	125	16	16	92	37	129
02/23/2022 16:15-16:30	12	12	24	24	33	33	6	6	67	67	134	11	11	89	40	129
02/23/2022 16:30-16:45	12	12	29	29	29	29	5	5	74	62	136	8	8	102	52	154
02/23/2022 16:45-17:00	13	13	28	28	28	28	6	6	64	56	120	16	16	101	47	148
02/23/2022 17:00-17:15	9	9	42	42	33	33	4	4	59	62	121	14	14	117	42	159
02/23/2022 17:15-17:30	15	15	26	26	32	32	3	3	58	55	113	16	16	111	54	165
02/23/2022 17:30-17:45	12	12	25	25	28	28	2	2	47	61	108	8	8	98	46	144
02/23/2022 17:45-18:00	8	8	22	22	24	24	1	1	53	44	97	15	15	79	39	118
02/23/2022 18:00-18:15	7	7	15	15	28	28	2	2	48	54	102	9	9	72	39	111
02/23/2022 18:15-18:30	5	5	15	15	23	23	0	0	43	37	80	6	6	79	43	122
02/23/2022 18:30-18:45	3	3	9	9	20	20	1	1	42	37	79	8	8	74	35	109
02/23/2022 18:45-19:00	2	2	11	11	16	16	3	3	44	30	74	15	15	77	54	131
02/23/2022 19:00-19:15	6	6	11	11	9	9	1	1	41	47	88	7	7	44	38	82
02/23/2022 19:15-19:30	5	5	9	9	8	8	1	1	26	26	52	7	7	39	30	69
02/23/2022 19:30-19:45	5	5	14	14	7	7	3	3	26	30	56	1	1	37	16	53
02/23/2022 19:45-20:00	3	3	9	9	13	13	3	3	16	18	34	3	3	32	22	54

02/23/2022 20:00-20:15	5	5	6	6	13	13	0	0	24	24	48	4	4	20	16	36
02/23/2022 20:15-20:30	2	2	2	2	13	13	1	1	16	13	29	4	4	27	11	38
02/23/2022 20:30-20:45	4	4	3	3	12	12	3	3	19	12	31	3	3	45	11	56
02/23/2022 20:45-21:00	7	7	9	9	7	7	1	1	16	15	31	4	4	28	15	43
02/23/2022 21:00-21:15	4	4	5	5	8	8	2	2	16	13	29	1	1	22	14	36
02/23/2022 21:15-21:30	4	4	6	6	9	9	1	1	21	15	36	1	1	28	15	43
02/23/2022 21:30-21:45	4	4	5	5	3	3	0	0	22	33	55	2	2	25	9	34
02/23/2022 21:45-22:00	1	1	4	4	5	5	1	1	47	58	105	2	2	16	6	22
02/23/2022 22:00-22:15	1	1	9	9	5	5	2	2	9	24	33	2	2	20	8	28
02/23/2022 22:15-22:30	4	4	6	6	6	6	1	1	14	20	34	3	3	10	11	21
02/23/2022 22:30-22:45	2	2	3	3	3	3	0	0	12	10	22	0	0	12	3	15
02/23/2022 22:45-23:00	0	0	3	3	2	2	1	1	13	13	26	0	0	13	5	18
02/23/2022 23:00-23:15	2	2	1	1	8	8	0	0	9	11	20	2	2	15	4	19
02/23/2022 23:15-23:30	1	1	7	7	6	6	4	4	13	11	24	2	2	10	3	13
02/23/2022 23:30-23:45	1	1	4	4	4	4	1	1	6	10	16	1	1	5	3	8
02/23/2022 23:45-00:00	0	0	3	3	2	2	0	0	3	4	7	0	0	5	1	6

Summary	466	466	1110	1110	1699	1699	209	209	3659	2890	6549	797	797	4401	2696	7097
Approach %	30%	30%	70%	70%	100%	100%	3%	3%	54%	43%	97%	10%	10%	56%	34%	90%
Intersection %	3%	3%	6%	6%	9%	9%	1%	1%	20%	16%	37%	4%	4%	25%	15%	40%

Volume/Occupancy Per Lane Report

05/23/2022

Controller: 2226 10th at Lemon
Flex Group: [All]

Detector Purpose : 4 **Time:** 02/23/2022 00:00:00 **To:** 02/23/2022 23:59:59

	North Bound						South Bound		East Bound			West Bound				
Date Time Range	L1	LT	T1	TT	R1	RT	T1	TT	T1	T2	TT	L1	LT	T1	T2	TT
02/23/2022 00:00-00:15	0	0	2	2	2	2	0	0	10	0	10	0	0	5	0	5
02/23/2022 00:15-00:30	2	2	1	1	0	0	0	0	8	0	8	0	0	6	0	6
02/23/2022 00:30-00:45	1	1	0	0	0	0	0	0	11	0	11	0	0	5	0	5
02/23/2022 00:45-01:00	0	0	1	1	1	1	0	0	2	0	2	0	0	5	0	5
02/23/2022 01:00-01:15	2	2	0	0	1	1	0	0	3	0	3	0	0	5	0	5
02/23/2022 01:15-01:30	1	1	0	0	1	1	0	0	3	0	3	1	1	3	0	3
02/23/2022 01:30-01:45	0	0	0	0	0	0	0	0	5	0	5	0	0	1	0	1
02/23/2022 01:45-02:00	0	0	1	1	1	1	0	0	3	0	3	0	0	2	0	2
02/23/2022 02:00-02:15	0	0	2	2	0	0	0	0	2	0	2	0	0	1	0	1
02/23/2022 02:15-02:30	0	0	0	0	0	0	0	0	1	0	1	0	0	4	0	4
02/23/2022 02:30-02:45	0	0	1	1	2	2	0	0	5	0	5	1	1	1	0	1
02/23/2022 02:45-03:00	0	0	0	0	0	0	0	0	6	0	6	0	0	4	0	4
02/23/2022 03:00-03:15	0	0	0	0	1	1	0	0	1	0	1	0	0	1	0	1
02/23/2022 03:15-03:30	0	0	0	0	0	0	0	0	3	0	3	0	0	1	0	1
02/23/2022 03:30-03:45	1	1	3	3	0	0	0	0	5	0	5	0	0	7	0	7
02/23/2022 03:45-04:00	0	0	1	1	0	0	0	0	7	0	7	0	0	6	0	6
02/23/2022 04:00-04:15	0	0	2	2	1	1	0	0	5	0	5	0	0	2	0	2
02/23/2022 04:15-04:30	0	0	2	2	1	1	0	0	5	0	5	1	1	6	0	6
02/23/2022 04:30-04:45	0	0	0	0	0	0	0	0	4	0	4	0	0	4	0	4
02/23/2022 04:45-05:00	0	0	1	1	2	2	0	0	10	0	10	0	0	10	0	10
02/23/2022 05:00-05:15	1	1	1	1	0	0	1	1	8	0	8	0	0	7	0	7
02/23/2022 05:15-05:30	0	0	1	1	3	3	0	0	11	0	11	1	1	5	0	5
02/23/2022 05:30-05:45	0	0	0	0	0	0	0	0	12	0	12	1	1	11	0	11
02/23/2022 05:45-06:00	0	0	3	3	3	3	0	0	16	0	16	1	1	14	0	14
02/23/2022 06:00-06:15	2	2	2	2	0	0	0	0	24	0	24	2	2	22	0	22
02/23/2022 06:15-06:30	3	3	1	1	3	3	0	0	34	0	34	3	3	33	0	33
02/23/2022 06:30-06:45	7	7	2	2	18	18	0	0	35	0	35	12	12	49	0	49
02/23/2022 06:45-07:00	11	11	8	8	61	61	0	0	56	0	56	13	13	49	0	49
02/23/2022 07:00-07:15	7	7	12	12	35	35	1	1	62	0	62	13	13	67	0	67
02/23/2022 07:15-07:30	3	3	5	5	1	1	0	0	66	0	66	12	12	72	0	72
02/23/2022 07:30-07:45	3	3	6	6	10	10	0	0	102	0	102	16	16	102	0	102
02/23/2022 07:45-08:00	0	0	5	5	9	9	0	0	111	0	111	21	21	114	0	114
02/23/2022 08:00-08:15	5	5	8	8	11	11	0	0	103	0	103	19	19	106	0	106
02/23/2022 08:15-08:30	2	2	5	5	8	8	0	0	113	0	113	23	23	159	0	159
02/23/2022 08:30-08:45	3	3	10	10	6	6	0	0	138	0	138	24	24	146	0	146
02/23/2022 08:45-09:00	5	5	2	2	9	9	1	1	145	0	145	18	18	123	0	123
02/23/2022 09:00-09:15	12	12	0	0	15	15	0	0	90	0	90	21	21	86	0	86
02/23/2022 09:15-09:30	5	5	4	4	10	10	2	2	95	0	95	14	14	111	0	111
02/23/2022 09:30-09:45	2	2	3	3	12	12	0	0	102	0	102	14	14	109	0	109
02/23/2022 09:45-10:00	8	8	7	7	14	14	0	0	131	0	131	16	16	112	0	112
02/23/2022 10:00-10:15	8	8	8	8	10	10	0	0	119	0	119	12	12	91	0	91
02/23/2022 10:15-10:30	4	4	11	11	14	14	0	0	94	0	94	9	9	73	0	73
02/23/2022 10:30-10:45	8	8	7	7	12	12	1	1	113	0	113	9	9	117	0	117
02/23/2022 10:45-11:00	1	1	13	13	9	9	1	1	99	0	99	8	8	99	0	99
02/23/2022 11:00-11:15	7	7	11	11	6	6	1	1	104	0	104	11	11	119	0	119
02/23/2022 11:15-11:30	6	6	6	6	9	9	1	1	129	0	129	12	12	91	0	91
02/23/2022 11:30-11:45	7	7	11	11	15	15	0	0	110	0	110	9	9	102	0	102
02/23/2022 11:45-12:00	10	10	5	5	11	11	0	0	111	0	111	12	12	107	0	107
02/23/2022 12:00-12:15	7	7	2	2	23	23	0	0	102	0	102	12	12	79	0	79
02/23/2022 12:15-12:30	9	9	0	0	18	18	0	0	100	0	100	18	18	86	0	86
02/23/2022 12:30-12:45	2	2	2	2	19	19	0	0	114	0	114	13	13	99	0	99
02/23/2022 12:45-13:00	4	4	3	3	11	11	0	0	121	0	121	9	9	105	0	105
02/23/2022 13:00-13:15	6	6	6	6	16	16	1	1	102	0	102	18	18	101	0	101
02/23/2022 13:15-13:30	12	12	1	1	13	13	0	0	108	0	108	7	7	92	0	92
02/23/2022 13:30-13:45	16	16	3	3	19	19	0	0	81	0	81	11	11	91	0	91
02/23/2022 13:45-14:00	9	9	3	3	10	10	2	2	102	0	102	11	11	97	0	97
02/23/2022 14:00-14:15	16	16	12	12	49	49	1	1	93	0	93	9	9	87	0	87
02/23/2022 14:15-14:30	7	7	0	0	15	15	1	1	92	0	92	10	10	87	0	87
02/23/2022 14:30-14:45	7	7	5	5	15	15	0	0	111	0	111	8	8	120	0	120
02/23/2022 14:45-15:00	6	6	10	10	14	14	2	2	119	0	119	12	12	106	0	106
02/23/2022 15:00-15:15	4	4	3	3	16	16	0	0	117	0	117	10	10	103	0	103
02/23/2022 15:15-15:30	7	7	11	11	22	22	1	1	95	0	95	13	13	97	0	97
02/23/2022 15:30-15:45	9	9	11	11	17	17	2	2	117	0	117	4	4	84	0	84
02/23/2022 15:45-16:00	6	6	5	5	20	20	2	2	134	0	134	14	14	120	0	120
02/23/2022 16:00-16:15	5	5	12	12	28	28	0	0	134	0	134	10	10	97	0	97
02/23/2022 16:15-16:30	5	5	10	10	21	21	0	0	127	0	127	9	9	102	0	102
02/23/2022 16:30-16:45	4	4	6	6	14	14	1	1	139	0	139	7	7	116	0	116
02/23/2022 16:45-17:00	9	9	13	13	16	16	0	0	116	0	116	8	8	118	0	118
02/23/2022 17:00-17:15	8	8	18	18	35	35	1	1	112	0	112	12	12	102	0	102
02/23/2022 17:15-17:30	5	5	14	14	21	21	1	1	118	0	118	11	11	123	0	123
02/23/2022 17:30-17:45	14	14	6	6	17	17	0	0	92	0	92	9	9	96	0	96
02/23/2022 17:45-18:00	8	8	1	1	20	20	0	0	87	0	87	11	11	77	0	77
02/23/2022 18:00-18:15	7	7	4	4	15	15	1	1	90	0	90	5	5	89	0	89
02/23/2022 18:15-18:30	4	4	9	9	13	13	0	0	82	0	82	6	6	102	0	102
02/23/2022 18:30-18:45	6	6	0	0	16	16	0	0	69	0	69	9	9	81	0	81
02/23/2022 18:45-19:00	8	8	4	4	12	12	0	0	64	0	64	7	7	98	0	98
02/23/2022 19:00-19:15	3	3	3	3	8	8	0	0	85	0	85	5	5	74	0	74
02/23/2022 19:15-19:30	4	4	6	6	4	4	3	3	53	0	53	5	5	56	0	56
02/23/2022 19:30-19:45	4	4	0	0	9	9	0	0	49	0	49	4	4	34	0	34
02/23/2022 19:45-20:00	2	2	2	2	13	13	0	0	43	0	43	2	2	36	0	36

02/23/2022 20:00-20:15	2	2	3	3	3	3	0	0	58	0	58	2	2	30	0	30
02/23/2022 20:15-20:30	7	7	1	1	2	2	0	0	31	0	31	2	2	28	0	28
02/23/2022 20:30-20:45	4	4	3	3	3	3	0	0	33	0	33	5	5	49	0	49
02/23/2022 20:45-21:00	3	3	3	3	3	3	0	0	33	0	33	3	3	34	0	34
02/23/2022 21:00-21:15	4	4	0	0	6	6	0	0	25	0	25	2	2	26	0	26
02/23/2022 21:15-21:30	2	2	2	2	3	3	1	1	33	0	33	1	1	29	0	29
02/23/2022 21:30-21:45	5	5	3	3	7	7	0	0	49	0	49	1	1	29	0	29
02/23/2022 21:45-22:00	2	2	2	2	14	14	0	0	97	0	97	2	2	21	0	21
02/23/2022 22:00-22:15	2	2	0	0	6	6	0	0	38	0	38	4	4	27	0	27
02/23/2022 22:15-22:30	1	1	3	3	4	4	0	0	41	0	41	2	2	20	0	20
02/23/2022 22:30-22:45	1	1	1	1	4	4	0	0	21	0	21	3	3	12	0	12
02/23/2022 22:45-23:00	0	0	3	3	3	3	0	0	22	0	22	0	0	15	0	15
02/23/2022 23:00-23:15	3	3	0	0	5	5	0	0	23	0	23	1	1	14	0	14
02/23/2022 23:15-23:30	3	3	1	1	1	1	0	0	25	0	25	4	4	8	0	8
02/23/2022 23:30-23:45	1	1	2	2	4	4	0	0	18	0	18	0	0	8	0	8
02/23/2022 23:45-00:00	0	0	0	0	1	1	0	0	8	0	8	1	1	6	0	6

Summary	400	400	386	386	955	955	29	29	6155	0	6155	661	661	5686	0	5686
Approach %	23%	23%	22%	22%	55%	55%	100%	100%	100%	0%	100%	10%	10%	90%	0%	90%
Intersection %	3%	3%	3%	3%	7%	7%	0%	0%	43%	0%	43%	5%	5%	40%	0%	40%

Volume/Occupancy Per Lane Report

05/23/2022

Controller: 2227 Orange at 10th
Flex Group: [All]

Detector Purpose : 4 **Time:** 02/23/2022 00:00:00 **To:** 02/23/2022 23:59:59

	North Bound				South Bound				East Bound				West Bound	
Date Time Range	L1	LT	T1	TT	L1	LT	T1	TT	L1	LT	T1	TT	T1	TT
02/23/2022 00:00-00:15	1	1	4	4	0	0	1	1	5	5	5	5	6	6
02/23/2022 00:15-00:30	4	4	5	5	0	0	1	1	3	3	7	7	4	4
02/23/2022 00:30-00:45	2	2	2	2	1	1	2	2	1	1	8	8	8	8
02/23/2022 00:45-01:00	1	1	3	3	0	0	2	2	1	1	0	0	11	11
02/23/2022 01:00-01:15	4	4	5	5	1	1	1	1	1	1	2	2	6	6
02/23/2022 01:15-01:30	2	2	2	2	0	0	1	1	1	1	1	1	10	10
02/23/2022 01:30-01:45	1	1	3	3	1	1	1	1	3	3	2	2	0	0
02/23/2022 01:45-02:00	0	0	7	7	0	0	0	0	2	2	1	1	4	4
02/23/2022 02:00-02:15	1	1	2	2	1	1	0	0	0	0	1	1	2	2
02/23/2022 02:15-02:30	0	0	1	1	1	1	0	0	2	2	0	0	4	4
02/23/2022 02:30-02:45	1	1	2	2	0	0	1	1	4	4	3	3	0	0
02/23/2022 02:45-03:00	2	2	4	4	0	0	2	2	2	2	4	4	4	4
02/23/2022 03:00-03:15	1	1	1	1	0	0	1	1	0	0	0	0	0	0
02/23/2022 03:15-03:30	0	0	3	3	0	0	0	0	2	2	1	1	2	2
02/23/2022 03:30-03:45	2	2	5	5	1	1	0	0	2	2	3	3	9	9
02/23/2022 03:45-04:00	1	1	1	1	0	0	0	0	0	0	2	2	10	10
02/23/2022 04:00-04:15	2	2	1	1	1	1	0	0	0	0	6	6	2	2
02/23/2022 04:15-04:30	5	5	4	4	0	0	0	0	0	0	5	5	2	2
02/23/2022 04:30-04:45	4	4	6	6	0	0	2	2	1	1	3	3	0	0
02/23/2022 04:45-05:00	3	3	4	4	0	0	1	1	3	3	7	7	12	12
02/23/2022 05:00-05:15	1	1	4	4	0	0	1	1	1	1	3	3	8	8
02/23/2022 05:15-05:30	0	0	2	2	0	0	1	1	4	4	9	9	4	4
02/23/2022 05:30-05:45	4	4	6	6	0	0	8	8	3	3	10	10	13	13
02/23/2022 05:45-06:00	2	2	5	5	2	2	13	13	6	6	10	10	6	6
02/23/2022 06:00-06:15	3	3	4	4	3	3	8	8	10	10	11	11	14	14
02/23/2022 06:15-06:30	2	2	13	13	2	2	25	25	9	9	22	22	31	31
02/23/2022 06:30-06:45	2	2	20	20	2	2	29	29	15	15	39	39	46	46
02/23/2022 06:45-07:00	6	6	25	25	6	6	45	45	41	41	71	71	53	53
02/23/2022 07:00-07:15	19	19	37	37	4	4	41	41	38	38	67	67	59	59
02/23/2022 07:15-07:30	12	12	34	34	7	7	38	38	13	13	48	48	53	53
02/23/2022 07:30-07:45	12	12	24	24	11	11	52	52	38	38	72	72	81	81
02/23/2022 07:45-08:00	12	12	23	23	5	5	50	50	37	37	74	74	77	77
02/23/2022 08:00-08:15	12	12	32	32	5	5	55	55	40	40	74	74	76	76
02/23/2022 08:15-08:30	16	16	27	27	7	7	61	61	29	29	80	80	103	103
02/23/2022 08:30-08:45	19	19	28	28	10	10	49	49	52	52	86	86	83	83
02/23/2022 08:45-09:00	21	21	31	31	5	5	50	50	51	51	101	101	124	124
02/23/2022 09:00-09:15	24	24	37	37	5	5	51	51	43	43	77	77	114	114
02/23/2022 09:15-09:30	23	23	31	31	5	5	48	48	39	39	85	85	75	75
02/23/2022 09:30-09:45	23	23	34	34	6	6	48	48	39	39	78	78	84	84
02/23/2022 09:45-10:00	20	20	41	41	3	3	50	50	48	48	86	86	71	71
02/23/2022 10:00-10:15	30	30	42	42	6	6	39	39	32	32	87	87	73	73
02/23/2022 10:15-10:30	19	19	45	45	2	2	50	50	42	42	68	68	40	40
02/23/2022 10:30-10:45	27	27	40	40	5	5	40	40	42	42	88	88	96	96
02/23/2022 10:45-11:00	28	28	48	48	6	6	41	41	40	40	67	67	91	91
02/23/2022 11:00-11:15	23	23	57	57	1	1	48	48	56	56	72	72	92	92
02/23/2022 11:15-11:30	36	36	63	63	1	1	46	46	48	48	87	87	68	68
02/23/2022 11:30-11:45	26	26	57	57	6	6	42	42	48	48	83	83	83	83
02/23/2022 11:45-12:00	23	23	51	51	12	12	39	39	42	42	78	78	89	89
02/23/2022 12:00-12:15	25	25	54	54	7	7	28	28	68	68	79	79	86	86
02/23/2022 12:15-12:30	30	30	54	54	12	12	29	29	63	63	73	73	74	74
02/23/2022 12:30-12:45	25	25	49	49	4	4	29	29	53	53	98	98	103	103
02/23/2022 12:45-13:00	30	30	57	57	6	6	44	44	59	59	83	83	94	94
02/23/2022 13:00-13:15	30	30	54	54	8	8	27	27	57	57	78	78	89	89
02/23/2022 13:15-13:30	25	25	53	53	12	12	40	40	55	55	87	87	83	83
02/23/2022 13:30-13:45	25	25	49	49	9	9	29	29	44	44	70	70	79	79
02/23/2022 13:45-14:00	19	19	46	46	15	15	45	45	31	31	85	85	96	96
02/23/2022 14:00-14:15	22	22	48	48	15	15	44	44	74	74	94	94	98	98
02/23/2022 14:15-14:30	21	21	62	62	13	13	38	38	64	64	57	57	97	97
02/23/2022 14:30-14:45	22	22	69	69	13	13	48	48	64	64	68	68	81	81
02/23/2022 14:45-15:00	22	22	49	49	11	11	37	37	57	57	70	70	98	98
02/23/2022 15:00-15:15	28	28	63	63	4	4	38	38	78	78	76	76	85	85
02/23/2022 15:15-15:30	18	18	55	55	4	4	40	40	62	62	71	71	73	73
02/23/2022 15:30-15:45	28	28	66	66	1	1	40	40	91	91	73	73	82	82
02/23/2022 15:45-16:00	32	32	53	53	12	12	33	33	80	80	91	91	101	101
02/23/2022 16:00-16:15	29	29	61	61	6	6	40	40	96	96	79	79	86	86
02/23/2022 16:15-16:30	26	26	62	62	6	6	33	33	71	71	99	99	99	99
02/23/2022 16:30-16:45	36	36	76	76	9	9	42	42	67	67	87	87	74	74
02/23/2022 16:45-17:00	38	38	65	65	11	11	39	39	78	78	72	72	84	84
02/23/2022 17:00-17:15	29	29	103	103	9	9	34	34	100	100	71	71	98	98
02/23/2022 17:15-17:30	37	37	80	80	5	5	43	43	100	100	82	82	95	95
02/23/2022 17:30-17:45	34	34	75	75	3	3	37	37	75	75	56	56	94	94
02/23/2022 17:45-18:00	24	24	57	57	5	5	34	34	62	62	75	75	66	66
02/23/2022 18:00-18:15	27	27	36	36	7	7	33	33	65	65	59	59	77	77
02/23/2022 18:15-18:30	23	23	38	38	4	4	29	29	44	44	56	56	90	90
02/23/2022 18:30-18:45	25	25	33	33	3	3	17	17	45	45	45	45	92	92
02/23/2022 18:45-19:00	21	21	33	33	1	1	23	23	40	40	44	44	79	79
02/23/2022 19:00-19:15	28	28	40	40	2	2	24	24	46	46	45	45	56	56
02/23/2022 19:15-19:30	20	20	34	34	5	5	18	18	19	19	41	41	49	49
02/23/2022 19:30-19:45	16	16	23	23	2	2	13	13	27	27	32	32	31	31
02/23/2022 19:45-20:00	15	15	31	31	5	5	11	11	31	31	26	26	41	41

02/23/2022 20:00-20:15	6	6	25	25	8	8	6	6	20	20	41	41	40	40
02/23/2022 20:15-20:30	11	11	26	26	8	8	14	14	14	14	17	17	35	35
02/23/2022 20:30-20:45	12	12	19	19	2	2	11	11	16	16	17	17	37	37
02/23/2022 20:45-21:00	10	10	23	23	4	4	12	12	12	12	23	23	29	29
02/23/2022 21:00-21:15	8	8	13	13	3	3	10	10	13	13	14	14	35	35
02/23/2022 21:15-21:30	6	6	24	24	2	2	7	7	18	18	25	25	37	37
02/23/2022 21:30-21:45	9	9	21	21	3	3	4	4	25	25	30	30	32	32
02/23/2022 21:45-22:00	10	10	27	27	3	3	4	4	40	40	76	76	20	20
02/23/2022 22:00-22:15	12	12	26	26	0	0	6	6	31	31	18	18	25	25
02/23/2022 22:15-22:30	8	8	16	16	2	2	7	7	25	25	17	17	17	17
02/23/2022 22:30-22:45	3	3	12	12	2	2	3	3	11	11	14	14	14	14
02/23/2022 22:45-23:00	1	1	9	9	0	0	5	5	9	9	16	16	16	16
02/23/2022 23:00-23:15	4	4	12	12	4	4	2	2	12	12	18	18	16	16
02/23/2022 23:15-23:30	4	4	14	14	1	1	3	3	13	13	11	11	11	11
02/23/2022 23:30-23:45	6	6	14	14	0	0	3	3	10	10	12	12	7	7
02/23/2022 23:45-00:00	4	4	10	10	0	0	0	0	2	2	6	6	4	4

Summary	**1426**	**1426**	**2945**	**2945**	**405**	**405**	**2240**	**2240**	**3176**	**3176**	**4371**	**4371**	**4908**	**4908**
Approach %	**33%**	**33%**	**67%**	**67%**	**15%**	**15%**	**85%**	**85%**	**42%**	**42%**	**58%**	**58%**	**100%**	**100%**
Intersection %	**7%**	**7%**	**15%**	**15%**	**2%**	**2%**	**12%**	**12%**	**16%**	**16%**	**22%**	**22%**	**25%**	**25%**

Volume/Occupancy Per Lane Report

05/23/2022

Controller: 2029 US 41 @ 6th St/Blvd of the Arts
Flex Group: [All]

Detector Purpose : 4 **Time:** 02/23/2022 00:00:00 **To:** 02/23/2022 23:59:59

	North Bound					South Bound					East Bound						West Bound			
Date Time Range	L1	LT	T1	T2	TT	L1	LT	T1	T2	TT	L1	LT	T1	TT	R1	RT	L1	LT	T1	TT
02/23/2022 00:00-00:15	2	2	29	12	41	1	1	12	15	27	1	1	0	0	0	0	0	0	0	0
02/23/2022 00:15-00:30	2	2	18	7	25	0	0	15	13	28	1	1	0	0	0	0	0	0	3	3
02/23/2022 00:30-00:45	1	1	18	7	25	6	6	4	7	11	3	3	0	0	0	0	0	0	0	0
02/23/2022 00:45-01:00	1	1	7	4	11	1	1	6	10	16	0	0	0	0	0	0	0	0	1	1
02/23/2022 01:00-01:15	1	1	9	3	12	3	3	4	5	9	1	1	0	0	0	0	1	1	0	0
02/23/2022 01:15-01:30	0	0	7	4	11	0	0	3	11	14	0	0	0	0	0	0	0	0	1	1
02/23/2022 01:30-01:45	0	0	6	2	8	2	2	4	6	10	0	0	0	0	0	0	0	0	0	0
02/23/2022 01:45-02:00	0	0	5	3	8	0	0	1	7	8	0	0	0	0	0	0	0	0	1	1
02/23/2022 02:00-02:15	0	0	7	1	8	1	1	1	6	7	0	0	0	0	0	0	0	0	1	1
02/23/2022 02:15-02:30	1	1	9	2	11	2	2	3	5	8	0	0	0	0	0	0	0	0	1	1
02/23/2022 02:30-02:45	1	1	5	4	9	2	2	2	5	7	0	0	1	1	1	1	0	0	0	0
02/23/2022 02:45-03:00	1	1	1	2	3	0	0	5	7	12	1	1	0	0	0	0	0	0	0	0
02/23/2022 03:00-03:15	0	0	3	2	5	1	1	4	3	7	0	0	0	0	0	0	0	0	0	0
02/23/2022 03:15-03:30	0	0	3	4	7	0	0	3	9	12	0	0	0	0	0	0	0	0	0	0
02/23/2022 03:30-03:45	0	0	4	0	4	0	0	1	6	7	0	0	0	0	0	0	0	0	0	0
02/23/2022 03:45-04:00	0	0	5	3	8	2	2	5	5	10	1	1	0	0	0	0	0	0	2	2
02/23/2022 04:00-04:15	0	0	8	5	13	2	2	4	4	8	0	0	0	0	0	0	0	0	2	2
02/23/2022 04:15-04:30	0	0	9	4	13	0	0	11	7	18	0	0	0	0	0	0	0	0	1	1
02/23/2022 04:30-04:45	2	2	11	3	14	3	3	17	7	24	0	0	0	0	0	0	0	0	0	0
02/23/2022 04:45-05:00	0	0	10	6	16	1	1	17	15	32	1	1	0	0	0	0	0	0	0	0
02/23/2022 05:00-05:15	3	3	25	7	32	1	1	17	17	34	2	2	1	1	1	1	0	0	0	0
02/23/2022 05:15-05:30	2	2	20	9	29	2	2	16	30	46	1	1	0	0	0	0	0	0	1	1
02/23/2022 05:30-05:45	1	1	21	10	31	4	4	31	33	64	0	0	0	0	0	0	1	1	4	4
02/23/2022 05:45-06:00	2	2	30	13	43	3	3	41	48	89	2	2	0	0	0	0	0	0	4	4
02/23/2022 06:00-06:15	3	3	24	22	46	2	2	43	49	92	3	3	1	1	1	1	0	0	2	2
02/23/2022 06:15-06:30	2	2	36	19	55	7	7	68	77	145	3	3	0	0	0	0	2	2	3	3
02/23/2022 06:30-06:45	9	9	34	26	60	8	8	51	156	207	5	5	0	0	0	0	1	1	6	6
02/23/2022 06:45-07:00	3	3	0	62	62	13	13	75	111	186	3	3	2	2	1	1	0	0	5	5
02/23/2022 07:00-07:15	6	6	5	75	80	15	15	87	109	196	4	4	3	3	1	1	3	3	3	3
02/23/2022 07:15-07:30	13	13	11	100	111	28	28	119	132	251	3	3	4	4	3	3	7	7	9	9
02/23/2022 07:30-07:45	5	5	24	109	133	38	38	153	159	312	7	7	7	7	7	7	5	5	11	11
02/23/2022 07:45-08:00	8	8	49	77	126	63	63	157	147	304	5	5	4	4	4	4	5	5	13	13
02/23/2022 08:00-08:15	6	6	26	43	69	59	59	121	131	252	3	3	8	8	7	7	6	6	4	4
02/23/2022 08:15-08:30	3	3	0	52	52	35	35	138	108	246	2	2	11	11	9	9	5	5	14	14
02/23/2022 08:30-08:45	9	9	46	64	110	58	58	78	132	210	7	7	9	9	8	8	7	7	12	12
02/23/2022 08:45-09:00	6	6	57	47	104	65	65	65	118	183	5	5	12	12	12	12	7	7	37	37
02/23/2022 09:00-09:15	6	6	62	70	132	54	54	71	104	175	6	6	16	16	15	15	8	8	42	42
02/23/2022 09:15-09:30	13	13	69	56	125	38	38	48	91	139	13	13	8	8	8	8	7	7	18	18
02/23/2022 09:30-09:45	14	14	69	60	129	51	51	23	69	92	6	6	10	10	10	10	7	7	18	18
02/23/2022 09:45-10:00	6	6	74	68	142	30	30	39	73	112	10	10	12	12	13	13	7	7	21	21
02/23/2022 10:00-10:15	14	14	88	70	158	27	27	43	78	121	6	6	12	12	11	11	12	12	35	35
02/23/2022 10:15-10:30	15	15	84	70	154	32	32	40	81	121	10	10	16	16	16	16	11	11	34	34
02/23/2022 10:30-10:45	11	11	74	71	145	44	44	31	81	112	13	13	11	11	11	11	9	9	23	23
02/23/2022 10:45-11:00	15	15	94	69	163	38	38	24	62	86	10	10	18	18	13	13	18	18	26	26
02/23/2022 11:00-11:15	14	14	86	73	159	31	31	25	65	90	11	11	19	19	16	16	16	16	22	22
02/23/2022 11:15-11:30	8	8	74	74	148	41	41	28	69	97	12	12	10	10	10	10	13	13	22	22
02/23/2022 11:30-11:45	10	10	72	69	141	50	50	31	67	98	13	13	16	16	13	13	14	14	39	39
02/23/2022 11:45-12:00	8	8	75	67	142	50	50	34	60	94	13	13	13	13	9	9	8	8	38	38
02/23/2022 12:00-12:15	21	21	19	92	111	35	35	21	61	82	13	13	11	11	14	14	7	7	28	28
02/23/2022 12:15-12:30	17	17	25	76	101	46	46	27	67	94	6	6	16	16	14	14	12	12	28	28
02/23/2022 12:30-12:45	15	15	86	84	170	39	39	47	80	127	10	10	24	24	23	23	10	10	28	28
02/23/2022 12:45-13:00	21	21	100	75	175	32	32	39	82	121	10	10	21	21	19	19	9	9	47	47
02/23/2022 13:00-13:15	26	26	101	80	181	46	46	40	64	104	8	8	19	19	14	14	8	8	30	30
02/23/2022 13:15-13:30	15	15	100	83	183	46	46	40	73	113	6	6	7	7	6	6	6	6	25	25
02/23/2022 13:30-13:45	15	15	108	94	202	38	38	57	77	134	11	11	17	17	16	16	10	10	23	23
02/23/2022 13:45-14:00	9	9	112	101	213	31	31	63	79	142	9	9	13	13	11	11	8	8	19	19
02/23/2022 14:00-14:15	14	14	120	122	242	25	25	92	67	159	11	11	17	17	17	17	3	3	25	25
02/23/2022 14:15-14:30	17	17	141	130	271	16	16	99	53	152	9	9	10	10	9	9	0	0	25	25
02/23/2022 14:30-14:45	16	16	122	133	255	32	32	101	74	175	12	12	13	13	11	11	5	5	22	22
02/23/2022 14:45-15:00	10	10	119	103	222	24	24	98	65	163	5	5	12	12	11	11	5	5	15	15
02/23/2022 15:00-15:15	10	10	132	136	268	19	19	90	66	156	7	7	17	17	15	15	3	3	24	24
02/23/2022 15:15-15:30	5	5	150	153	303	16	16	108	86	194	8	8	12	12	11	11	3	3	18	18
02/23/2022 15:30-15:45	17	17	159	164	323	14	14	101	90	191	12	12	11	11	9	9	4	4	23	23
02/23/2022 15:45-16:00	9	9	146	143	289	24	24	108	82	190	4	4	13	13	12	12	7	7	18	18
02/23/2022 16:00-16:15	11	11	156	156	312	20	20	98	76	174	14	14	13	13	12	12	4	4	18	18
02/23/2022 16:15-16:30	8	8	163	165	328	17	17	94	98	192	6	6	21	21	16	16	7	7	24	24
02/23/2022 16:30-16:45	7	7	160	160	320	25	25	101	92	193	10	10	19	19	15	15	4	4	19	19
02/23/2022 16:45-17:00	11	11	170	171	341	17	17	101	96	197	8	8	9	9	9	9	5	5	27	27
02/23/2022 17:00-17:15	11	11	172	165	337	14	14	101	105	206	6	6	8	8	7	7	10	10	22	22
02/23/2022 17:15-17:30	15	15	169	177	346	16	16	98	99	197	8	8	14	14	14	14	7	7	25	25
02/23/2022 17:30-17:45	10	10	185	189	374	11	11	113	93	206	12	12	14	14	12	12	11	11	27	27
02/23/2022 17:45-18:00	17	17	154	162	316	11	11	102	98	200	7	7	10	10	9	9	3	3	37	37
02/23/2022 18:00-18:15	18	18	152	134	286	21	21	84	94	178	7	7	11	11	11	11	8	8	17	17
02/23/2022 18:15-18:30	15	15	115	108	223	11	11	96	84	180	5	5	10	10	10	10	3	3	23	23
02/23/2022 18:30-18:45	32	32	118	109	227	19	19	64	71	135	8	8	5	5	5	5	3	3	24	24
02/23/2022 18:45-19:00	45	45	128	98	226	15	15	74	69	143	6	6	13	13	11	11	3	3	25	25
02/23/2022 19:00-19:15	28	28	131	122	253	12	12	75	66	141	3	3	3	3	2	2	2	2	21	21
02/23/2022 19:15-19:30	11	11	108	103	211	14	14	50	71	121	4	4	8	8	9	9	3	3	15	15
02/23/2022 19:30-19:45	7	7	102	69	171	11	11	54	41	95	3	3	6	6	5	5	3	3	9	9
02/23/2022 19:45-20:00	13	13	93	70	163	10	10	47	61	108	5	5	8	8	5	5	3	3	7	7

02/23/2022 20:00-20:15	10	10	88	60	148	16	16	43	51	94	1	1	5	5	4	4	1	1	7	7
02/23/2022 20:15-20:30	10	10	79	50	129	14	14	38	53	91	2	2	7	7	5	5	3	3	16	16
02/23/2022 20:30-20:45	15	15	82	54	136	8	8	46	57	103	2	2	7	7	4	4	6	6	9	9
02/23/2022 20:45-21:00	12	12	74	53	127	14	14	38	45	83	2	2	9	9	7	7	3	3	13	13
02/23/2022 21:00-21:15	11	11	84	50	134	3	3	34	41	75	3	3	2	2	2	2	5	5	13	13
02/23/2022 21:15-21:30	10	10	89	66	155	7	7	35	40	75	3	3	2	2	2	2	1	1	8	8
02/23/2022 21:30-21:45	10	10	68	49	117	25	25	67	69	136	3	3	17	17	15	15	1	1	11	11
02/23/2022 21:45-22:00	13	13	68	48	116	44	44	74	98	172	5	5	17	17	17	17	0	0	8	8
02/23/2022 22:00-22:15	9	9	84	54	138	9	9	31	34	65	5	5	5	5	4	4	1	1	15	15
02/23/2022 22:15-22:30	8	8	69	40	109	5	5	36	31	67	3	3	4	4	3	3	0	0	3	3
02/23/2022 22:30-22:45	5	5	53	32	85	0	0	11	18	29	1	1	0	0	0	0	0	0	3	3
02/23/2022 22:45-23:00	6	6	45	38	83	2	2	17	25	42	2	2	2	2	2	2	0	0	0	0
02/23/2022 23:00-23:15	1	1	48	28	76	4	4	17	21	38	3	3	3	3	3	3	1	1	3	3
02/23/2022 23:15-23:30	1	1	40	14	54	2	2	7	13	20	1	1	0	0	0	0	1	1	2	2
02/23/2022 23:30-23:45	2	2	25	16	41	0	0	8	17	25	4	4	0	0	0	0	0	0	1	1
02/23/2022 23:45-00:00	1	1	23	15	38	3	3	12	7	19	1	1	0	0	0	0	1	1	3	3

Summary	847	847	6538	6224	12762	1797	1797	4816	5710	10526	481	481	709	709	632	632	383	383	1332	1332
Approach %	6%	6%	48%	46%	94%	15%	15%	39%	46%	85%	26%	26%	39%	39%	35%	35%	22%	22%	78%	78%
Intersection %	3%	3%	22%	21%	43%	6%	6%	16%	19%	36%	2%	2%	2%	2%	2%	2%	1%	1%	5%	5%

Intersection Turning Movement Count

City/County: Sarasota/Sarasota
Weather: Clear
Comments:

File Name : BlvdoftheArts&Cocoanut
Site Code : 20024
Start Date : 10/7/2020
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - UTurns

	COCOANUT AVENUE Southbound				BOULEVARD OF THE ARTS Westbound				COCOANUT AVENUE Northbound				BOULEVARD OF THE ARTS Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	11	35	4	50	4	12	5	21	26	49	12	87	13	47	33	93	251
04:15 PM	6	25	3	34	3	10	9	22	22	63	9	94	30	41	15	86	236
04:30 PM	6	34	4	44	4	16	10	30	20	42	7	69	11	48	16	75	218
04:45 PM	9	29	2	40	0	17	3	20	23	43	5	71	18	30	25	73	204
Total	32	123	13	168	11	55	27	93	91	197	33	321	72	166	89	327	909
05:00 PM	4	24	5	33	1	16	9	26	21	53	4	78	12	34	20	66	203
05:15 PM	3	27	4	34	1	23	7	31	29	49	5	83	5	33	21	59	207
05:30 PM	8	31	8	47	1	21	5	27	19	29	10	58	7	43	20	70	202
05:45 PM	8	18	5	31	2	19	8	29	25	20	4	49	1	29	8	38	147
Total	23	100	22	145	5	79	29	113	94	151	23	268	25	139	69	233	759
Grand Total	55	223	35	313	16	134	56	206	185	348	56	589	97	305	158	560	1668
Apprch %	17.6	71.2	11.2		7.8	65	27.2		31.4	59.1	9.5		17.3	54.5	28.2		
Total %	3.3	13.4	2.1	18.8	1	8	3.4	12.4	11.1	20.9	3.4	35.3	5.8	18.3	9.5	33.6	
Passenger Vehicles	55	218	35	308	16	133	54	203	176	346	56	578	92	301	148	541	1630
% Passenger Vehicles	100	97.8	100	98.4	100	99.3	96.4	98.5	95.1	99.4	100	98.1	94.8	98.7	93.7	96.6	97.7
Heavy Vehicles	0	5	0	5	0	1	2	3	9	2	0	11	4	4	10	18	37
% Heavy Vehicles	0	2.2	0	1.6	0	0.7	3.6	1.5	4.9	0.6	0	1.9	4.1	1.3	6.3	3.2	2.2
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.2	0.1

	COCOANUT AVENUE Southbound				BOULEVARD OF THE ARTS Westbound				COCOANUT AVENUE Northbound				BOULEVARD OF THE ARTS Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**11**	**35**	**4**	**50**	**4**	12	5	21	**26**	49	**12**	87	13	47	**33**	**93**	**251**
04:15 PM	6	25	3	34	3	10	9	22	22	**63**	9	**94**	**30**	41	15	86	236
04:30 PM	6	34	4	44	4	16	**10**	**30**	20	42	7	69	11	**48**	16	75	218
04:45 PM	9	29	2	40	0	**17**	3	20	23	43	5	71	18	30	25	73	204
Total Volume	32	123	13	168	11	55	27	93	91	197	33	321	72	166	89	327	909
% App. Total	19	73.2	7.7		11.8	59.1	29		28.3	61.4	10.3		22	50.8	27.2		
PHF	.727	.879	.813	.840	.688	.809	.675	.775	.875	.782	.688	.854	.600	.865	.674	.879	.905

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:00 PM			
+0 mins.	**11**	**35**	**4**	**50**	1	16	**9**	26	**26**	49	**12**	87	13	47	**33**	**93**
+15 mins.	6	25	3	34	1	**23**	7	**31**	22	**63**	9	**94**	**30**	41	15	86
+30 mins.	6	34	4	44	1	21	5	27	20	42	7	69	11	**48**	16	75
+45 mins.	9	29	2	40	**2**	19	8	29	23	43	5	71	18	30	25	73
Total Volume	32	123	13	168	5	79	29	113	91	197	33	321	72	166	89	327
% App. Total	19	73.2	7.7		4.4	69.9	25.7		28.3	61.4	10.3		22	50.8	27.2	
PHF	.727	.879	.813	.840	.625	.859	.806	.911	.875	.782	.688	.854	.600	.865	.674	.879

Intersection Turning Movement Count

City/County: Sarasota/Sarasota
Weather: Clear
Comments:

File Name : BlvdoftheArts&Cocoanut
Site Code : 20024
Start Date : 10/7/2020
Page No : 1

Groups Printed- Passenger Vehicles

	COCOANUT AVENUE Southbound				BOULEVARD OF THE ARTS Westbound				COCOANUT AVENUE Northbound				BOULEVARD OF THE ARTS Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	11	34	4	49	4	12	5	21	25	48	12	85	12	45	30	87	242
04:15 PM	6	25	3	34	3	10	8	21	21	63	9	93	29	40	14	83	231
04:30 PM	6	34	4	44	4	16	9	29	18	42	7	67	10	47	16	73	213
04:45 PM	9	28	2	39	0	16	3	19	22	43	5	70	17	30	24	71	199
Total	32	121	13	166	11	54	25	90	86	196	33	315	68	162	84	314	885
05:00 PM	4	24	5	33	1	16	9	26	21	52	4	77	12	34	18	64	200
05:15 PM	3	26	4	33	1	23	7	31	26	49	5	80	5	33	20	58	202
05:30 PM	8	30	8	46	1	21	5	27	19	29	10	58	7	43	19	69	200
05:45 PM	8	17	5	30	2	19	8	29	24	20	4	48	0	29	7	36	143
Total	23	97	22	142	5	79	29	113	90	150	23	263	24	139	64	227	745
Grand Total	55	218	35	308	16	133	54	203	176	346	56	578	92	301	148	541	1630
Apprch %	17.9	70.8	11.4		7.9	65.5	26.6		30.4	59.9	9.7		17	55.6	27.4		
Total %	3.4	13.4	2.1	18.9	1	8.2	3.3	12.5	10.8	21.2	3.4	35.5	5.6	18.5	9.1	33.2	

	COCOANUT AVENUE Southbound				BOULEVARD OF THE ARTS Westbound				COCOANUT AVENUE Northbound				BOULEVARD OF THE ARTS Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**11**	**34**	**4**	**49**	**4**	12	5	21	**25**	48	**12**	85	12	45	**30**	**87**	**242**
04:15 PM	6	25	3	34	3	10	8	21	21	**63**	9	**93**	**29**	40	14	83	231
04:30 PM	6	34	4	44	4	**16**	**9**	**29**	18	42	7	67	10	**47**	16	73	213
04:45 PM	9	28	2	39	0	16	3	19	22	43	5	70	17	30	24	71	199
Total Volume	32	121	13	166	11	54	25	90	86	196	33	315	68	162	84	314	885
% App. Total	19.3	72.9	7.8		12.2	60	27.8		27.3	62.2	10.5		21.7	51.6	26.8		
PHF	.727	.890	.813	.847	.688	.844	.694	.776	.860	.778	.688	.847	.586	.862	.700	.902	.914

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:00 PM			
+0 mins.	**11**	**34**	**4**	**49**	1	16	**9**	26	**25**	48	**12**	85	12	45	**30**	**87**
+15 mins.	6	25	3	34	1	**23**	7	**31**	21	**63**	9	**93**	**29**	40	14	83
+30 mins.	6	34	4	44	1	21	5	27	18	42	7	67	10	**47**	16	73
+45 mins.	9	28	2	39	**2**	19	8	29	22	43	5	70	17	30	24	71
Total Volume	32	121	13	166	5	79	29	113	86	196	33	315	68	162	84	314
% App. Total	19.3	72.9	7.8		4.4	69.9	25.7		27.3	62.2	10.5		21.7	51.6	26.8	
PHF	.727	.890	.813	.847	.625	.859	.806	.911	.860	.778	.688	.847	.586	.862	.700	.902

Intersection Turning Movement Count

City/County: Sarasota/Sarasota
Weather: Clear
Comments:

File Name : BlvdoftheArts&Cocoanut
Site Code : 20024
Start Date : 10/7/2020
Page No : 1

Groups Printed- Heavy Vehicles

	COCOANUT AVENUE Southbound				BOULEVARD OF THE ARTS Westbound				COCOANUT AVENUE Northbound				BOULEVARD OF THE ARTS Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	1	1	0	2	1	2	3	6	9
04:15 PM	0	0	0	0	0	0	1	1	1	0	0	1	1	1	1	3	5
04:30 PM	0	0	0	0	0	0	1	1	2	0	0	2	0	1	0	1	4
04:45 PM	0	1	0	1	0	1	0	1	1	0	0	1	1	0	1	2	5
Total	0	2	0	2	0	1	2	3	5	1	0	6	3	4	5	12	23
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2	3
05:15 PM	0	1	0	1	0	0	0	0	3	0	0	3	0	0	1	1	5
05:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
05:45 PM	0	1	0	1	0	0	0	0	1	0	0	1	1	0	1	2	4
Total	0	3	0	3	0	0	0	0	4	1	0	5	1	0	5	6	14
Grand Total	0	5	0	5	0	1	2	3	9	2	0	11	4	4	10	18	37
Apprch %	0	100	0		0	33.3	66.7		81.8	18.2	0		22.2	22.2	55.6		
Total %	0	13.5	0	13.5	0	2.7	5.4	8.1	24.3	5.4	0	29.7	10.8	10.8	27	48.6	

	COCOANUT AVENUE Southbound				BOULEVARD OF THE ARTS Westbound				COCOANUT AVENUE Northbound				BOULEVARD OF THE ARTS Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**1**	0	**1**	0	0	0	0	1	**1**	0	**2**	**1**	**2**	**3**	**6**	**9**
04:15 PM	0	0	0	0	0	0	**1**	**1**	1	0	0	1	1	1	1	3	5
04:30 PM	0	0	0	0	0	0	1	1	**2**	0	0	2	0	1	0	1	4
04:45 PM	0	1	0	1	0	**1**	0	1	1	0	0	1	1	0	1	2	5
Total Volume	0	2	0	2	0	1	2	3	5	1	0	6	3	4	5	12	23
% App. Total	0	100	0		0	33.3	66.7		83.3	16.7	0		25	33.3	41.7		
PHF	.000	.500	.000	.500	.000	.250	.500	.750	.625	.250	.000	.750	.750	.500	.417	.500	.639

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				04:30 PM				04:00 PM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	2	0	0	2	**1**	**2**	**3**	**6**
+15 mins.	0	0	0	0	0	0	**1**	**1**	1	0	0	1	1	1	1	3
+30 mins.	0	1	0	1	0	0	1	1	0	**1**	0	1	0	1	0	1
+45 mins.	0	1	0	1	0	**1**	0	1	**3**	0	0	**3**	1	0	1	2
Total Volume	0	3	0	3	0	1	2	3	6	1	0	7	3	4	5	12
% App. Total	0	100	0		0	33.3	66.7		85.7	14.3	0		25	33.3	41.7	
PHF	.000	.750	.000	.750	.000	.250	.500	.750	.500	.250	.000	.583	.750	.500	.417	.500

Intersection Turning Movement Count

City/County: Sarasota/Sarasota
Weather: Clear
Comments:

File Name : BlvdoftheArts&Cocoanut
Site Code : 20024
Start Date : 10/7/2020
Page No : 1

Groups Printed- UTurns

	COCOANUT AVENUE Southbound				BOULEVARD OF THE ARTS Westbound				COCOANUT AVENUE Northbound				BOULEVARD OF THE ARTS Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
*** BREAK ***																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
*** BREAK ***																	
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
*** BREAK ***																	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		100	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	

	COCOANUT AVENUE Southbound				BOULEVARD OF THE ARTS Westbound				COCOANUT AVENUE Northbound				BOULEVARD OF THE ARTS Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**1**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

Intersection Pedestrian & Bicycle Count

Date: 10/7/20 Day: Wednesday

Count Times: 4-6pm Weather: Clear

Intersection: Boulevard of the Arts at Cocoanut Avenue

Comments: **C - Children under 12; S - Seniors 65 or over; D - Physical Disability**

Peds/Bikes Crossing North Leg

	4:00-4:30	4:30-5:00	5:00-5:30	5:30-6:00
PED	2	1	1	2
BIKE			1	1
PED	1	1		
BIKE				

Hour

N

Peds/Bikes Crossing West Leg

	PED	BIKE
4:00-4:30	1	3	1
4:30-5:00	6	2	1
5:00-5:30	2	1	3
5:30-6:00	3	4	1

Peds/Bikes Crossing East Leg

	PED	BIKE
4:00-4:30	2+D	2
4:30-5:00	3	
5:00-5:30	3+D	4
5:30-6:00	1+D	1	3	2

Blvd of the Arts

Cocoanut

Peds/Bikes Crossing South Leg

	4:00-4:30	4:30-5:00	5:00-5:30	5:30-6:00
PED		1	1	2
BIKE				
PED	1			
BIKE			1	

BlvdArt&CocoanutPED.xlsx

GTS Engineering

11523 Palmbrush Trail, Ste 317
Lakewood Ranch, Fl 34202
941-219-3039

Boulevard of the Arts & Central Avenue
County: Sarasota
City: Sarasota

File Name : Central_Bl of the Arts
Site Code : 00000000
Start Date : 4/2/2015
Page No : 1

Groups Printed- Vehicles - Heavy Trucks

	CENTRAL AVE Northbound				CENTRAL AVE Southbound				BLVD OF THE ARTS Eastbound				BLVD OF THE ARTS Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Factor	0.99	0.99	0.99		0.99	0.99	0.99		0.99	0.99	0.99		0.99	0.99	0.99		
04:00 PM	9	23	5	37	7	35	7	49	2	24	13	39	3	18	6	27	152
04:15 PM	9	33	3	45	16	39	1	56	1	19	10	30	2	18	1	21	152
04:30 PM	13	20	4	37	1	23	0	24	1	21	12	34	0	12	1	13	108
04:45 PM	11	19	0	30	3	22	3	28	1	34	9	44	3	14	4	21	123
Total	42	95	12	149	27	119	11	157	5	98	44	147	8	62	12	82	535
05:00 PM	10	34	3	47	4	23	3	30	5	24	10	39	1	14	4	19	135
05:15 PM	12	25	4	41	4	19	3	26	2	25	6	33	2	17	1	20	120
05:30 PM	11	30	4	45	2	24	1	27	1	15	5	21	2	17	2	21	114
05:45 PM	11	18	2	31	6	14	0	20	2	19	6	27	1	13	1	15	93
Total	44	107	13	164	16	80	7	103	10	83	27	120	6	61	8	75	462
Grand Total	86	202	25	313	43	199	18	260	15	181	71	267	14	123	20	157	997
Apprch %	27.5	64.5	8		16.5	76.5	6.9		5.6	67.8	26.6		8.9	78.3	12.7		
Total %	8.6	20.3	2.5	31.4	4.3	20	1.8	26.1	1.5	18.2	7.1	26.8	1.4	12.3	2	15.7	
Vehicles	85	200	25	310	40	198	17	255	15	180	70	265	14	122	20	156	986
% Vehicles	98.8	99	100	99	93	99.5	94.4	98.1	100	99.4	98.6	99.3	100	99.2	100	99.4	98.9
Heavy Trucks	1	2	0	3	3	1	1	5	0	1	1	2	0	1	0	1	11
% Heavy Trucks	1.2	1	0	1	7	0.5	5.6	1.9	0	0.6	1.4	0.7	0	0.8	0	0.6	1.1

	CENTRAL AVE Northbound				CENTRAL AVE Southbound				BLVD OF THE ARTS Eastbound				BLVD OF THE ARTS Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	9	23	5	37	7	35	7	49	2	24	13	39	3	18	6	27	152
04:15 PM	9	33	3	45	16	39	1	56	1	19	10	30	2	18	1	21	152
04:30 PM	13	20	4	37	1	23	0	24	1	21	12	34	0	12	1	13	108
04:45 PM	11	19	0	30	3	22	3	28	1	34	9	44	3	14	4	21	123
Total Volume	42	95	12	149	27	119	11	157	5	98	44	147	8	62	12	82	535
% App. Total	28.2	63.8	8.1		17.2	75.8	7		3.4	66.7	29.9		9.8	75.6	14.6		
PHF	.808	.720	.600	.828	.422	.763	.393	.700	.625	.721	.846	.835	.667	.861	.500	.719	.880

GTS Engineering

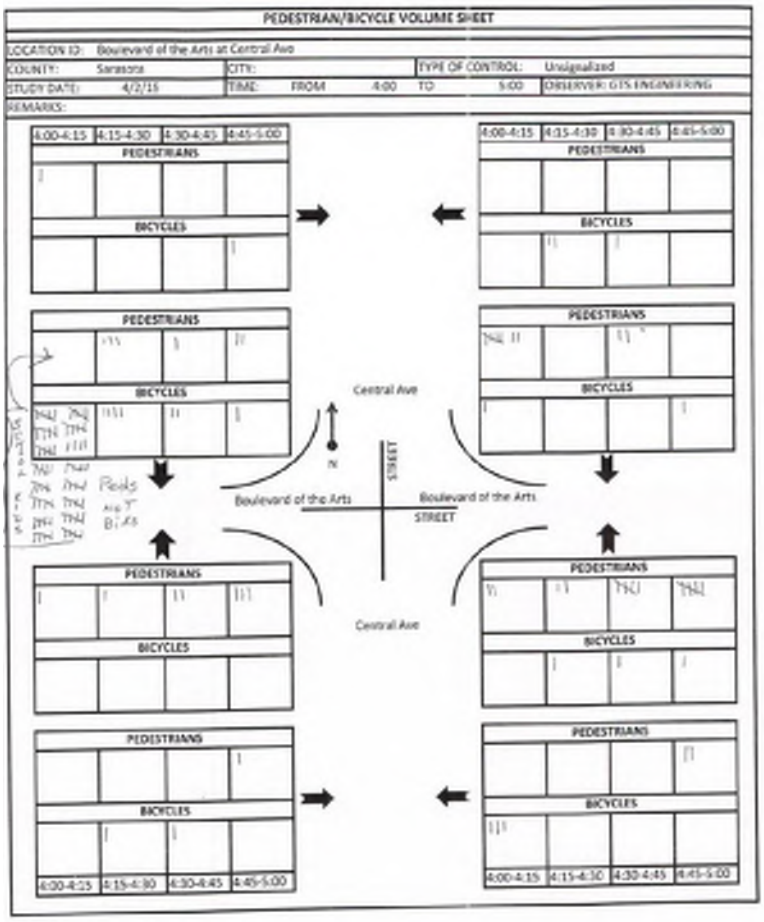
11523 Palmbrush Trail, Ste 317
Lakewood Ranch, Fl 34202
941-219-3039

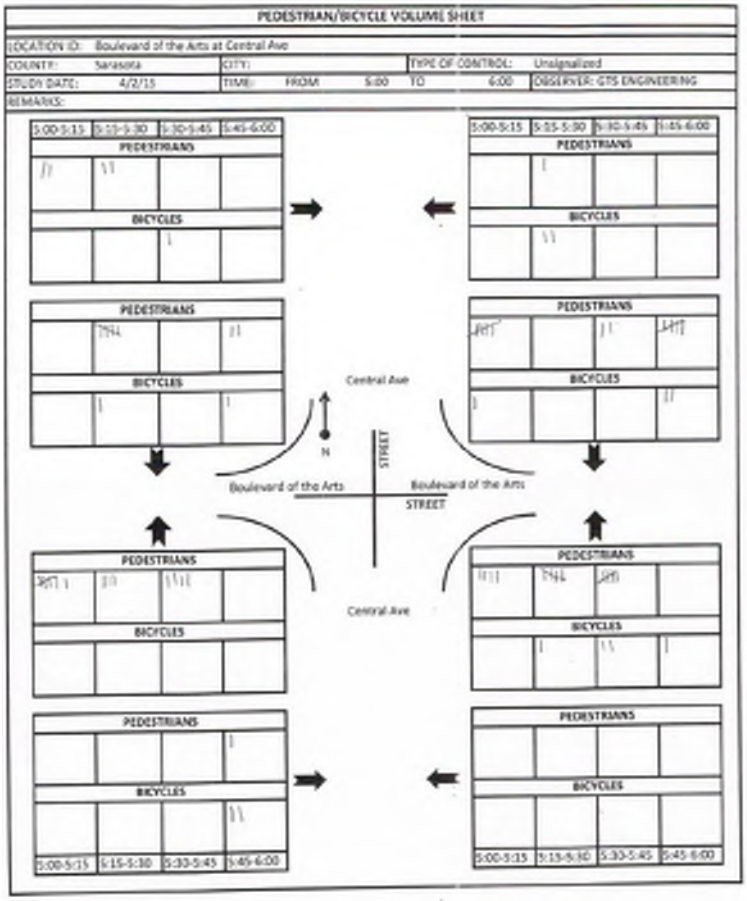
Boulevard of the Arts & Central Avenue
County: Sarasota
City: Sarasota

File Name : Central_Bl of the Arts
Site Code : 00000000
Start Date : 4/2/2015
Page No : 1

Groups Printed- Heavy Trucks

	CENTRAL AVE Northbound				CENTRAL AVE Southbound				BLVD OF THE ARTS Eastbound				BLVD OF THE ARTS Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Factor	0.99	0.99	0.99		0.99	0.99	0.99		0.99	0.99	0.99		0.99	0.99	0.99		
04:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
04:15 PM	0	1	0	1	3	1	0	4	0	0	0	0	0	0	0	0	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	3	1	1	5	0	0	0	0	0	1	0	1	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
Total	1	1	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
Grand Total	1	2	0	3	3	1	1	5	0	1	1	2	0	1	0	1	11
Apprch %	33.3	66.7	0		60	20	20		0	50	50		0	100	0		
Total %	9.1	18.2	0	27.3	27.3	9.1	9.1	45.5	0	9.1	9.1	18.2	0	9.1	0	9.1	


PEDESTRIAN/BICYCLE VOLUME SHEET
LOCATION ID: Boulevard of the Arts at Central Ave
COUNTY: Sarasota
CITY:
TYPE OF CONTROL: Unsignalized
STUDY DATE: 4/2/15
TIME: FROM 4:00 TO 5:00
OBSERVER: GTS ENGINEERING
REMARKS:
4:00-4:15
4:15-4:30
4:30-4:45
4:45-5:00
PEDESTRIANS
BICYCLES
Central Ave
Boulevard of the Arts
STREET
N


PEDESTRIAN/BICYCLE VOLUME SHEET
LOCATION ID: Boulevard of the Arts at Central Ave
COUNTY: Sarasota
CITY:
TYPE OF CONTROL: Unsignalized
STUDY DATE: 4/2/15
TIME: FROM 5:00 TO 6:00
OBSERVER: GTS ENGINEERING
REMARKS:
5:00-5:15
5:15-5:30
5:30-5:45
5:45-6:00
PEDESTRIANS
BICYCLES
Central Ave
Boulevard of the Arts
STREET
N

GTS Engineering

11523 Palmbrush Trail, Ste 317
Lakewood Ranch, Fl 34202
941-219-3039

Lemon Ave at Blvd of The Arts
City: Sarasota
County: Sarasota

File Name : Lemon_Blvd of the Arts
Site Code : 00000000
Start Date : 7/16/2015
Page No : 1

Groups Printed- Vehicles - Heavy Trucks

	LEMON AVE Northbound						LEMON AVE Southbound						BLVD OF THE ARTS Eastbound						BLVD OF THE ARTS Westbound						
Start Time	U-Turn	Left	Thru	Right	PEDR	App Total	U-Turn	Left	Thru	Right	PEDR	App Total	U-Turn	Left	Thru	Right	PEDR	App Total	U-Turn	Left	Thru	Right	PEDR	App Total	Int Total
Factor	1.22	1.22	1.22	1.22	1.22		1.22	1.22	1.22	1.22	1.22		1.22	1.22	1.22	1.22	1.22		1.22	1.22	1.22	1.22	1.22		
04:00 PM	0	5	23	1	0	29	0	4	11	1	0	16	0	5	10	4	4	23	0	2	7	0	0	9	77
04:15 PM	2	5	25	2	0	34	0	2	7	0	0	9	0	4	12	2	2	20	0	2	11	0	0	13	76
04:30 PM	2	1	27	2	2	34	0	0	10	1	1	12	0	1	13	0	1	15	0	1	18	0	0	19	80
04:45 PM	1	5	23	2	0	31	0	4	6	0	0	10	0	1	20	2	7	30	0	0	5	0	2	7	78
Total	5	16	98	7	2	128	0	10	34	2	1	47	0	11	55	8	14	88	0	5	41	0	2	48	311
05:00 PM	0	5	48	5	0	58	0	0	15	0	0	15	0	1	20	5	1	27	0	2	12	1	0	15	115
05:15 PM	1	4	44	2	0	51	0	1	10	2	0	13	0	5	24	4	2	35	0	2	12	2	0	16	115
05:30 PM	2	2	28	4	1	37	0	1	10	0	0	11	0	0	9	7	1	17	0	2	2	4	1	9	74
05:45 PM	2	4	19	1	1	27	0	0	2	1	0	3	0	0	15	0	5	20	0	1	6	1	1	9	59
Total	5	15	139	12	2	173	0	2	37	3	0	42	0	6	68	16	9	99	0	7	32	8	2	49	363
Grand Total	10	31	237	19	4	301	0	12	71	5	1	89	0	17	123	24	23	187	0	12	73	8	4	97	674
Apprch %	3.3	10.3	78.7	6.3	1.3		0	13.5	79.8	5.6	1.1		0	9.1	65.8	12.8	12.5		0	12.4	75.5	8.2	4.1		
Total %	1.5	4.6	35.2	2.8	0.6	44.7	0	1.8	10.5	0.7	0.1	13.2	0	2.5	18.2	3.6	3.4	27.7	0	1.8	10.8	1.2	0.6	14.4	
Vehicles	10	31	235	19	4	297	0	12	70	5	1	88	0	17	123	24	23	187	0	12	72	8	4	96	668
% Vehicles	100	100	98.3	100	100	98.7	0	100	98.6	100	100	98.9	0	100	100	100	100	100	0	100	98.6	100	100	99	99.1
Heavy Trucks	0	0	4	0	0	4	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	6
% Heavy Trucks	0	0	1.7	0	0	1.3	0	0	1.4	0	0	1.1	0	0	0	0	0	0	0	0	1.4	0	0	1	0.9

	LEMON AVE Northbound						LEMON AVE Southbound						BLVD OF THE ARTS Eastbound						BLVD OF THE ARTS Westbound						
Start Time	U-Turn	Left	Thru	Right	PEDR	App Total	U-Turn	Left	Thru	Right	PEDR	App Total	U-Turn	Left	Thru	Right	PEDR	App Total	U-Turn	Left	Thru	Right	PEDR	App Total	Int Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:30 PM																									
04:30 PM	2	1	27	2	2	34	0	0	10	1	1	12	0	1	13	0	1	15	0	1	18	0	0	19	80
04:45 PM	1	5	23	2	0	31	0	4	6	0	0	10	0	1	20	2	7	30	0	0	5	0	2	7	78
05:00 PM	0	5	48	5	0	58	0	0	15	0	0	15	0	1	20	5	1	27	0	2	12	1	0	15	115
05:15 PM	1	4	44	2	0	51	0	1	10	2	0	13	0	5	24	4	2	35	0	2	12	2	0	16	115
Total Volume	4	15	142	11	2	174	0	5	41	3	1	50	0	8	77	11	11	107	0	5	47	3	2	57	388
% App. Total	2.3	8.6	81.6	6.3	1.1		0	10	82	6	2		0	7.5	72	10.3	10.3		0	8.8	82.5	5.3	3.5		
PHF	.500	.750	.740	.550	.250	.750	.000	.313	.683	.375	.250	.833	.000	.400	.802	.550	.393	.764	.000	.625	.653	.375	.250	.750	.843

GTS Engineering

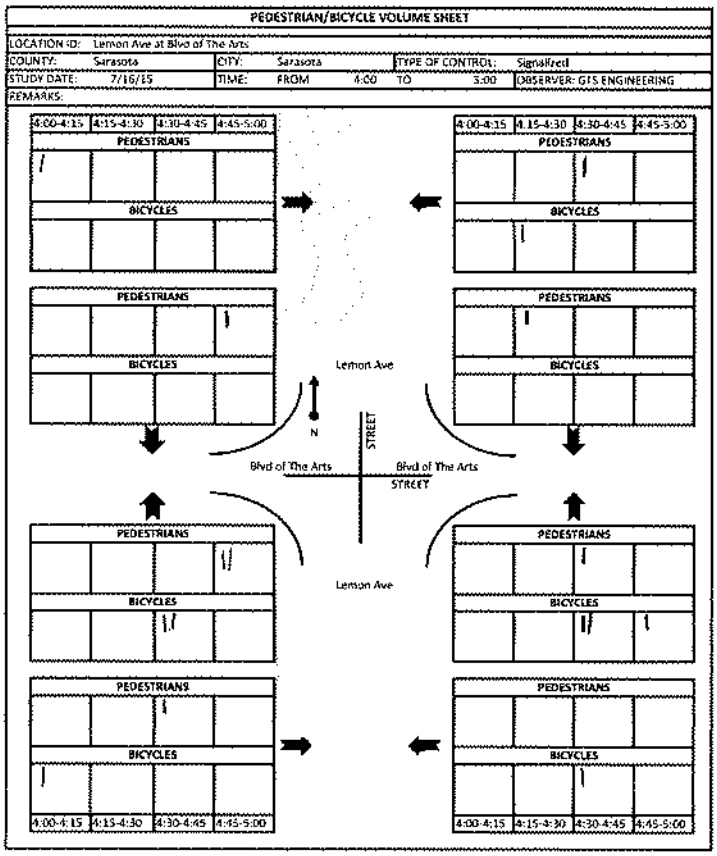
11523 Palmbrush Trail, Ste 317
Lakewood Ranch, Fl 34202
941-219-3039

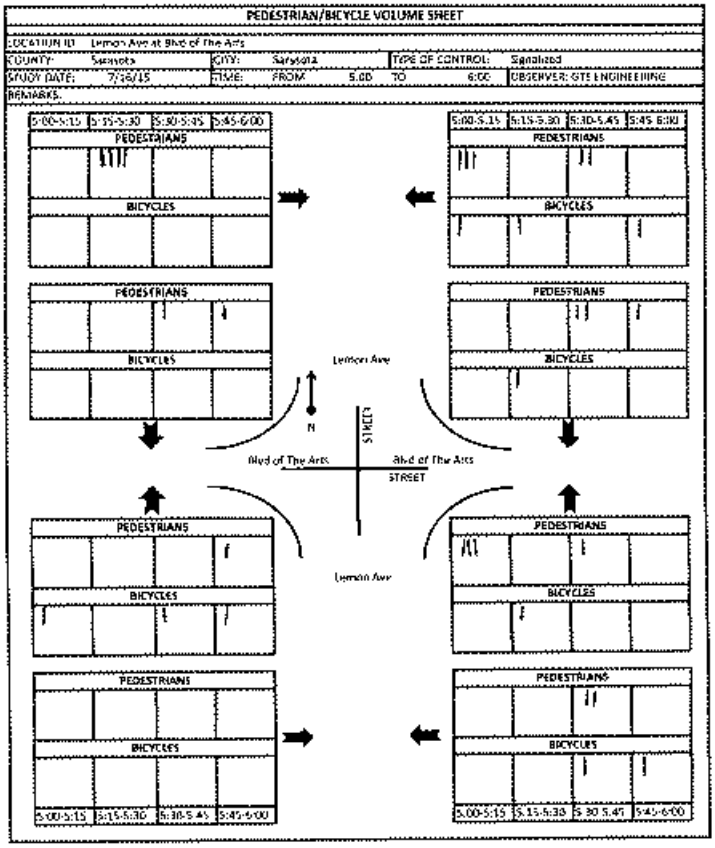
Lemon Ave at Blvd of The Arts
City: Sarasota
County: Sarasota

File Name : Lemon_Blvd of the Arts
Site Code : 00000000
Start Date : 7/16/2015
Page No : 1

Groups Printed- Heavy Trucks

	LEMON AVE Northbound						LEMON AVE Southbound						BLVD OF THE ARTS Eastbound						BLVD OF THE ARTS Westbound						
Start Time	U-Turn	Left	Thru	Right	PEDR	App Total	U-Turn	Left	Thru	Right	PEDR	App Total	U-Turn	Left	Thru	Right	PEDR	App Total	U-Turn	Left	Thru	Right	PEDR	App Total	Int Total
Factor	1.22	1.22	1.22	1.22	1.22		1.22	1.22	1.22	1.22	1.22		1.22	1.22	1.22	1.22	1.22		1.22	1.22	1.22	1.22	1.22		
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
05:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	2	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	4
Grand Total	0	0	4	0	0	4	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	6
Apprch %	0	0	100	0	0		0	0	100	0	0		0	0	0	0	0		0	0	100	0	0		
Total %	0	0	66.7	0	0	66.7	0	0	16.7	0	0	16.7	0	0	0	0	0	0	0	0	16.7	0	0	16.7	





Location: **Lemon Ave at Blvd of The Arts**

Movements	Lemon Ave				Blvd Of The Arts			
	Direction							
	Time	N/S Left	NB	SB	NB/SB	E/W Left	EB	WB	EB/WB
Timing 1	4:15				36				15
Timing 2	4:45				1:11				17
Timing 3	5:15				25				11
Timing 4	5:45				40				14
Timing 5									
Timing 6									

Volume/Occupancy Per Lane Report

05/23/2022

Controller: 2234 Orange at 6th
Flex Group: [All]

Detector Purpose : 4 **Time:** 02/23/2022 00:00:00 **To:** 02/23/2022 23:59:59

	North Bound		South Bound		East Bound		West Bound	
Date Time Range	T1	TT	T1	TT	T1	TT	T1	TT
02/23/2022 00:00-00:15	5	5	4	4	1	1	1	1
02/23/2022 00:15-00:30	4	4	2	2	1	1	2	2
02/23/2022 00:30-00:45	3	3	8	8	2	2	1	1
02/23/2022 00:45-01:00	2	2	1	1	0	0	0	0
02/23/2022 01:00-01:15	7	7	7	7	0	0	2	2
02/23/2022 01:15-01:30	1	1	2	2	2	2	2	2
02/23/2022 01:30-01:45	3	3	2	2	3	3	0	0
02/23/2022 01:45-02:00	6	6	1	1	1	1	1	1
02/23/2022 02:00-02:15	1	1	1	1	1	1	1	1
02/23/2022 02:15-02:30	1	1	1	1	1	1	1	1
02/23/2022 02:30-02:45	1	1	3	3	0	0	0	0
02/23/2022 02:45-03:00	2	2	3	3	0	0	1	1
02/23/2022 03:00-03:15	1	1	4	4	1	1	0	0
02/23/2022 03:15-03:30	2	2	0	0	1	1	1	1
02/23/2022 03:30-03:45	5	5	1	1	3	3	0	0
02/23/2022 03:45-04:00	0	0	0	0	2	2	2	2
02/23/2022 04:00-04:15	1	1	4	4	1	1	0	0
02/23/2022 04:15-04:30	3	3	3	3	0	0	0	0
02/23/2022 04:30-04:45	6	6	6	6	0	0	0	0
02/23/2022 04:45-05:00	3	3	3	3	2	2	1	1
02/23/2022 05:00-05:15	6	6	3	3	0	0	0	0
02/23/2022 05:15-05:30	3	3	6	6	0	0	0	0
02/23/2022 05:30-05:45	6	6	11	11	3	3	2	2
02/23/2022 05:45-06:00	6	6	18	18	1	1	1	1
02/23/2022 06:00-06:15	6	6	14	14	1	1	1	1
02/23/2022 06:15-06:30	24	24	27	27	3	3	1	1
02/23/2022 06:30-06:45	36	36	36	36	6	6	1	1
02/23/2022 06:45-07:00	70	70	42	42	8	8	4	4
02/23/2022 07:00-07:15	53	53	61	61	14	14	5	5
02/23/2022 07:15-07:30	39	39	74	74	20	20	7	7
02/23/2022 07:30-07:45	30	30	106	106	13	13	8	8
02/23/2022 07:45-08:00	32	32	122	122	23	23	3	3
02/23/2022 08:00-08:15	42	42	126	126	28	28	5	5
02/23/2022 08:15-08:30	38	38	129	129	24	24	7	7
02/23/2022 08:30-08:45	61	61	118	118	29	29	13	13
02/23/2022 08:45-09:00	60	60	132	132	35	35	13	13
02/23/2022 09:00-09:15	53	53	114	114	28	28	12	12
02/23/2022 09:15-09:30	58	58	115	115	20	20	11	11
02/23/2022 09:30-09:45	67	67	118	118	20	20	4	4
02/23/2022 09:45-10:00	64	64	139	139	30	30	12	12
02/23/2022 10:00-10:15	60	60	112	112	31	31	7	7
02/23/2022 10:15-10:30	83	83	113	113	25	25	12	12
02/23/2022 10:30-10:45	71	71	105	105	24	24	7	7
02/23/2022 10:45-11:00	72	72	101	101	29	29	14	14
02/23/2022 11:00-11:15	81	81	96	96	39	39	12	12
02/23/2022 11:15-11:30	90	90	112	112	25	25	17	17
02/23/2022 11:30-11:45	96	96	93	93	31	31	17	17
02/23/2022 11:45-12:00	62	62	80	80	48	48	16	16
02/23/2022 12:00-12:15	94	94	85	85	38	38	12	12
02/23/2022 12:15-12:30	87	87	96	96	38	38	18	18
02/23/2022 12:30-12:45	79	79	87	87	42	42	15	15
02/23/2022 12:45-13:00	92	92	96	96	29	29	16	16
02/23/2022 13:00-13:15	92	92	88	88	27	27	13	13
02/23/2022 13:15-13:30	84	84	101	101	34	34	13	13
02/23/2022 13:30-13:45	85	85	71	71	34	34	12	12
02/23/2022 13:45-14:00	79	79	101	101	31	31	13	13
02/23/2022 14:00-14:15	80	80	112	112	39	39	7	7
02/23/2022 14:15-14:30	104	104	80	80	26	26	15	15
02/23/2022 14:30-14:45	83	83	94	94	29	29	10	10
02/23/2022 14:45-15:00	89	89	90	90	28	28	12	12
02/23/2022 15:00-15:15	94	94	84	84	30	30	12	12
02/23/2022 15:15-15:30	75	75	84	84	35	35	14	14
02/23/2022 15:30-15:45	107	107	68	68	32	32	15	15
02/23/2022 15:45-16:00	103	103	85	85	41	41	17	17
02/23/2022 16:00-16:15	101	101	84	84	44	44	16	16
02/23/2022 16:15-16:30	99	99	81	81	35	35	12	12
02/23/2022 16:30-16:45	112	112	87	87	32	32	19	19
02/23/2022 16:45-17:00	114	114	86	86	34	34	18	18
02/23/2022 17:00-17:15	138	138	77	77	40	40	15	15
02/23/2022 17:15-17:30	107	107	84	84	35	35	18	18
02/23/2022 17:30-17:45	115	115	69	69	18	18	16	16
02/23/2022 17:45-18:00	84	84	74	74	24	24	7	7
02/23/2022 18:00-18:15	80	80	69	69	26	26	12	12
02/23/2022 18:15-18:30	88	88	62	62	24	24	10	10
02/23/2022 18:30-18:45	62	62	48	48	29	29	5	5
02/23/2022 18:45-19:00	63	63	50	50	24	24	4	4
02/23/2022 19:00-19:15	84	84	42	42	15	15	8	8
02/23/2022 19:15-19:30	48	48	26	26	15	15	6	6
02/23/2022 19:30-19:45	57	57	35	35	15	15	6	6
02/23/2022 19:45-20:00	37	37	32	32	18	18	7	7

02/23/2022 20:00-20:15	34	34	22	22	17	17	7	7
02/23/2022 20:15-20:30	32	32	23	23	18	18	5	5
02/23/2022 20:30-20:45	28	28	11	11	13	13	3	3
02/23/2022 20:45-21:00	25	25	18	18	12	12	3	3
02/23/2022 21:00-21:15	20	20	14	14	9	9	4	4
02/23/2022 21:15-21:30	26	26	14	14	6	6	0	0
02/23/2022 21:30-21:45	25	25	18	18	16	16	1	1
02/23/2022 21:45-22:00	31	31	24	24	33	33	3	3
02/23/2022 22:00-22:15	41	41	14	14	10	10	2	2
02/23/2022 22:15-22:30	17	17	10	10	5	5	2	2
02/23/2022 22:30-22:45	10	10	8	8	5	5	0	0
02/23/2022 22:45-23:00	9	9	8	8	4	4	3	3
02/23/2022 23:00-23:15	19	19	4	4	3	3	4	4
02/23/2022 23:15-23:30	13	13	7	7	5	5	4	4
02/23/2022 23:30-23:45	15	15	6	6	2	2	3	3
02/23/2022 23:45-00:00	7	7	1	1	0	0	4	4

Summary	4594	4594	5009	5009	1699	1699	669	669
Approach %	100%	100%	100%	100%	100%	100%	100%	100%
Intersection %	38%	38%	42%	42%	14%	14%	6%	6%

Appendix C:

FDOT Peak Season Factors and Volume Development Worksheets

2020 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1700 SARASOTA COUNTYWIDE

MOCF: 0.89

WEEK	DATES	SF	PSCF
* 1	01/01/2020 - 01/04/2020	0.98	1.10
* 2	01/05/2020 - 01/11/2020	0.92	1.03
* 3	01/12/2020 - 01/18/2020	0.86	0.97
* 4	01/19/2020 - 01/25/2020	0.84	0.94
* 5	01/26/2020 - 02/01/2020	0.83	0.93
* 6	02/02/2020 - 02/08/2020	0.81	0.91
* 7	02/09/2020 - 02/15/2020	0.80	0.90
* 8	02/16/2020 - 02/22/2020	0.83	0.93
* 9	02/23/2020 - 02/29/2020	0.86	0.97
*10	03/01/2020 - 03/07/2020	0.90	1.01
*11	03/08/2020 - 03/14/2020	0.93	1.04
*12	03/15/2020 - 03/21/2020	0.97	1.09
*13	03/22/2020 - 03/28/2020	1.09	1.22
14	03/29/2020 - 04/04/2020	1.21	1.36
15	04/05/2020 - 04/11/2020	1.33	1.49
16	04/12/2020 - 04/18/2020	1.45	1.63
17	04/19/2020 - 04/25/2020	1.35	1.52
18	04/26/2020 - 05/02/2020	1.26	1.42
19	05/03/2020 - 05/09/2020	1.16	1.30
20	05/10/2020 - 05/16/2020	1.06	1.19
21	05/17/2020 - 05/23/2020	1.05	1.18
22	05/24/2020 - 05/30/2020	1.04	1.17
23	05/31/2020 - 06/06/2020	1.02	1.15
24	06/07/2020 - 06/13/2020	1.01	1.13
25	06/14/2020 - 06/20/2020	1.00	1.12
26	06/21/2020 - 06/27/2020	1.01	1.13
27	06/28/2020 - 07/04/2020	1.02	1.15
28	07/05/2020 - 07/11/2020	1.03	1.16
29	07/12/2020 - 07/18/2020	1.04	1.17
30	07/19/2020 - 07/25/2020	1.04	1.17
31	07/26/2020 - 08/01/2020	1.05	1.18
32	08/02/2020 - 08/08/2020	1.06	1.19
33	08/09/2020 - 08/15/2020	1.07	1.20
34	08/16/2020 - 08/22/2020	1.06	1.19
35	08/23/2020 - 08/29/2020	1.06	1.19
36	08/30/2020 - 09/05/2020	1.06	1.19
37	09/06/2020 - 09/12/2020	1.06	1.19
38	09/13/2020 - 09/19/2020	1.06	1.19
39	09/20/2020 - 09/26/2020	1.05	1.18
40	09/27/2020 - 10/03/2020	1.03	1.16
41	10/04/2020 - 10/10/2020	1.02	1.15
42	10/11/2020 - 10/17/2020	1.00	1.12
43	10/18/2020 - 10/24/2020	1.00	1.12
44	10/25/2020 - 10/31/2020	1.00	1.12
45	11/01/2020 - 11/07/2020	1.00	1.12
46	11/08/2020 - 11/14/2020	1.00	1.12
47	11/15/2020 - 11/21/2020	1.00	1.12
48	11/22/2020 - 11/28/2020	1.00	1.12
49	11/29/2020 - 12/05/2020	0.99	1.11
50	12/06/2020 - 12/12/2020	0.99	1.11
51	12/13/2020 - 12/19/2020	0.98	1.10
52	12/20/2020 - 12/26/2020	0.92	1.03
53	12/27/2020 - 12/31/2020	0.86	0.97

* PEAK SEASON

2020 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1701 US 41 & US 301

MOCF: 0.88

WEEK	DATES	SF	PSCF
* 1	01/01/2020 - 01/04/2020	0.95	1.08
* 2	01/05/2020 - 01/11/2020	0.89	1.01
* 3	01/12/2020 - 01/18/2020	0.82	0.93
* 4	01/19/2020 - 01/25/2020	0.81	0.92
* 5	01/26/2020 - 02/01/2020	0.80	0.91
* 6	02/02/2020 - 02/08/2020	0.78	0.89
* 7	02/09/2020 - 02/15/2020	0.77	0.88
* 8	02/16/2020 - 02/22/2020	0.81	0.92
* 9	02/23/2020 - 02/29/2020	0.86	0.98
*10	03/01/2020 - 03/07/2020	0.90	1.02
*11	03/08/2020 - 03/14/2020	0.94	1.07
*12	03/15/2020 - 03/21/2020	0.99	1.13
*13	03/22/2020 - 03/28/2020	1.11	1.26
14	03/29/2020 - 04/04/2020	1.23	1.40
15	04/05/2020 - 04/11/2020	1.35	1.53
16	04/12/2020 - 04/18/2020	1.47	1.67
17	04/19/2020 - 04/25/2020	1.38	1.57
18	04/26/2020 - 05/02/2020	1.28	1.45
19	05/03/2020 - 05/09/2020	1.19	1.35
20	05/10/2020 - 05/16/2020	1.10	1.25
21	05/17/2020 - 05/23/2020	1.08	1.23
22	05/24/2020 - 05/30/2020	1.07	1.22
23	05/31/2020 - 06/06/2020	1.05	1.19
24	06/07/2020 - 06/13/2020	1.04	1.18
25	06/14/2020 - 06/20/2020	1.02	1.16
26	06/21/2020 - 06/27/2020	1.03	1.17
27	06/28/2020 - 07/04/2020	1.05	1.19
28	07/05/2020 - 07/11/2020	1.06	1.20
29	07/12/2020 - 07/18/2020	1.08	1.23
30	07/19/2020 - 07/25/2020	1.08	1.23
31	07/26/2020 - 08/01/2020	1.08	1.23
32	08/02/2020 - 08/08/2020	1.08	1.23
33	08/09/2020 - 08/15/2020	1.08	1.23
34	08/16/2020 - 08/22/2020	1.08	1.23
35	08/23/2020 - 08/29/2020	1.07	1.22
36	08/30/2020 - 09/05/2020	1.07	1.22
37	09/06/2020 - 09/12/2020	1.07	1.22
38	09/13/2020 - 09/19/2020	1.07	1.22
39	09/20/2020 - 09/26/2020	1.05	1.19
40	09/27/2020 - 10/03/2020	1.03	1.17
41	10/04/2020 - 10/10/2020	1.01	1.15
42	10/11/2020 - 10/17/2020	0.99	1.13
43	10/18/2020 - 10/24/2020	0.99	1.13
44	10/25/2020 - 10/31/2020	0.99	1.13
45	11/01/2020 - 11/07/2020	0.99	1.13
46	11/08/2020 - 11/14/2020	0.99	1.13
47	11/15/2020 - 11/21/2020	0.99	1.13
48	11/22/2020 - 11/28/2020	0.98	1.11
49	11/29/2020 - 12/05/2020	0.97	1.10
50	12/06/2020 - 12/12/2020	0.96	1.09
51	12/13/2020 - 12/19/2020	0.95	1.08
52	12/20/2020 - 12/26/2020	0.89	1.01
53	12/27/2020 - 12/31/2020	0.82	0.93

* PEAK SEASON

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1700 SARASOTA COUNTYWIDE

MOCF: 0.90

WEEK	DATES	SF	PSCF
1	01/01/2019 - 01/05/2019	0.99	1.10
2	01/06/2019 - 01/12/2019	0.99	1.10
3	01/13/2019 - 01/19/2019	0.98	1.09
4	01/20/2019 - 01/26/2019	0.96	1.07
* 5	01/27/2019 - 02/02/2019	0.94	1.04
* 6	02/03/2019 - 02/09/2019	0.92	1.02
* 7	02/10/2019 - 02/16/2019	0.89	0.99
* 8	02/17/2019 - 02/23/2019	0.88	0.98
* 9	02/24/2019 - 03/02/2019	0.88	0.98
*10	03/03/2019 - 03/09/2019	0.87	0.97
*11	03/10/2019 - 03/16/2019	0.86	0.96
*12	03/17/2019 - 03/23/2019	0.87	0.97
*13	03/24/2019 - 03/30/2019	0.89	0.99
*14	03/31/2019 - 04/06/2019	0.90	1.00
*15	04/07/2019 - 04/13/2019	0.91	1.01
*16	04/14/2019 - 04/20/2019	0.92	1.02
*17	04/21/2019 - 04/27/2019	0.94	1.04
18	04/28/2019 - 05/04/2019	0.97	1.08
19	05/05/2019 - 05/11/2019	0.99	1.10
20	05/12/2019 - 05/18/2019	1.01	1.12
21	05/19/2019 - 05/25/2019	1.02	1.13
22	05/26/2019 - 06/01/2019	1.04	1.16
23	06/02/2019 - 06/08/2019	1.05	1.17
24	06/09/2019 - 06/15/2019	1.06	1.18
25	06/16/2019 - 06/22/2019	1.07	1.19
26	06/23/2019 - 06/29/2019	1.07	1.19
27	06/30/2019 - 07/06/2019	1.08	1.20
28	07/07/2019 - 07/13/2019	1.08	1.20
29	07/14/2019 - 07/20/2019	1.09	1.21
30	07/21/2019 - 07/27/2019	1.10	1.22
31	07/28/2019 - 08/03/2019	1.11	1.23
32	08/04/2019 - 08/10/2019	1.11	1.23
33	08/11/2019 - 08/17/2019	1.12	1.24
34	08/18/2019 - 08/24/2019	1.12	1.24
35	08/25/2019 - 08/31/2019	1.13	1.26
36	09/01/2019 - 09/07/2019	1.13	1.26
37	09/08/2019 - 09/14/2019	1.13	1.26
38	09/15/2019 - 09/21/2019	1.13	1.26
39	09/22/2019 - 09/28/2019	1.11	1.23
40	09/29/2019 - 10/05/2019	1.09	1.21
41	10/06/2019 - 10/12/2019	1.07	1.19
42	10/13/2019 - 10/19/2019	1.06	1.18
43	10/20/2019 - 10/26/2019	1.04	1.16
44	10/27/2019 - 11/02/2019	1.03	1.14
45	11/03/2019 - 11/09/2019	1.02	1.13
46	11/10/2019 - 11/16/2019	1.01	1.12
47	11/17/2019 - 11/23/2019	1.01	1.12
48	11/24/2019 - 11/30/2019	1.00	1.11
49	12/01/2019 - 12/07/2019	1.00	1.11
50	12/08/2019 - 12/14/2019	0.99	1.10
51	12/15/2019 - 12/21/2019	0.99	1.10
52	12/22/2019 - 12/28/2019	0.99	1.10
53	12/29/2019 - 12/31/2019	0.98	1.09

* PEAK SEASON

TABLE 2 – DETERMINATION OF STUDY AREA

Road Name	From	To	Lanes	Percent Project Trip Distribution	Peak Hour Project Volume	PM Peak Two-way Service Volume	Service Volume Percent Impact	Study Area (Yes/No)
Cocoanut Avenue	Blvd of the Arts	10th Street	2U	3%	4	1,064	0.4%	No
Fifth Street	Central Ave	Project Driveway	2U	17%	20	931	2.1%	Yes*
Fifth Street	Project Driveway	Lemon Ave	2U	45%	52	931	5.6%	Yes
Blvd of the Arts	Cocoanut Ave	Central Ave	2U	10%	12	1,197	1.0%	No
Blvd of the Arts	Central Ave	Project Driveway	2U	22%	25	1,197	2.1%	Yes*
Blvd of the Arts	Project Driveway	Lemon Avenue	2U	15%	17	1,197	1.4%	Yes*
Central Avenue	10th Street	Blvd of the Arts	2U	12%	14	1,064	1.3%	No
Central Avenue	Blvd of the Arts	Fifth Street	2U	0%	0	931	0.0%	No
Central Avenue	Fifth Street	Fruitville Road	2U	17%	20	1,064	1.9%	No
Lemon Avenue	10th Street	Blvd of the Arts	2U	15%	17	1,197	1.4%	No
Lemon Avenue	Blvd of the Arts	Fifth Street	2U	0%	0	1,197	0.0%	No
Lemon Avenue	Fifth Street	Fruitville Road	2U	45%	52	1,197	4.3%	No
Fruitville Road	Lemon Ave	Orange Ave	4U	32%	32	2,628	1.4%	No

*Notes: * = Included into study area due to being an adjacent street to project driveway.*
PM Peak Two-way service volumes identified from Table 4 of the 2012 FDOT Q/LOS Handbook Tables.

VI. EXISTING TRAFFIC CONDITIONS

The existing PM peak hour conditions were evaluated based on peak hour turning movement counts from 4:00 to 6:00 p.m. at the required study intersections. Traffic counts are less than 12 months old and were adjusted to the most recent available Peak Season Correction Factor (PSCF) provided by FDOT to obtain the 100th highest hour volumes. The PSCF for when the data was collected ranged between 0.99 and 1.22.

Pedestrian, bicycle, and heavy vehicle volumes were also collected at each study intersection. Field inventory of traffic control and signal timing plans was also collected. Due to the various driveway and parking locations, the distance in between the analyzed intersections, and minor daily fluctuations in travel

VOLUME DEVELOPMENT WORKSHEET

10th Street & Cocoanut Avenue

AM PEAK HOUR

Description	10th Street Eastbound Left	Through	Right	10th Street Westbound Left	Through	Right	Cocoanut Avenue Northbound Left	Through	Right	Cocoanut Avenue Southbound Left	Through	Right
8:15 AM	0	68	13	29	95	13	9	7	8	19	17	22
8:30 AM	4	87	17	24	83	11	14	10	12	26	22	29
8:45 AM	2	91	17	21	78	11	10	7	9	15	13	18
9:00 AM	3	91	17	21	103	14	12	9	11	23	20	26
PHF						0.92						
2022 Existing Traffic	**9**	**337**	**64**	**95**	**359**	**49**	**45**	**33**	**40**	**83**	**72**	**95**
2020 PSCF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
2022 Peak Season Traffic	**9**	**327**	**62**	**92**	**348**	**48**	**44**	**32**	**39**	**81**	**70**	**92**
Compounded Annual Growth Rate	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%
2045 Peak Season Traffic	**11**	**415**	**79**	**117**	**441**	**61**	**51**	**37**	**45**	**94**	**82**	**107**

PM PEAK HOUR

Description	10th Street Eastbound Left	Through	Right	10th Street Westbound Left	Through	Right	Cocoanut Avenue Northbound Left	Through	Right	Cocoanut Avenue Southbound Left	Through	Right
4:30 PM	5	86	17	15	112	15	21	16	19	19	17	22
4:45 PM	7	91	18	15	106	15	20	15	17	19	16	22
5:00 PM	6	71	14	11	121	17	25	18	22	17	15	19
5:15 PM	6	83	16	15	122	17	32	24	28	12	10	13
PHF						0.96						
2022 Existing Traffic	**24**	**331**	**65**	**56**	**461**	**64**	**98**	**73**	**86**	**67**	**58**	**76**
2020 PSCF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
2022 Peak Season Traffic	**23**	**321**	**63**	**54**	**447**	**62**	**95**	**71**	**83**	**65**	**56**	**74**
Compounded Annual Growth Rate	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%
2045 Peak Season Traffic	**29**	**407**	**80**	**69**	**567**	**79**	**111**	**83**	**97**	**76**	**65**	**86**

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VOLUME DEVELOPMENT WORKSHEET

10th Street & Central Avenue

AM PEAK HOUR

Description	10th Street Eastbound Left	Through	Right	10th Street Westbound Left	Through	Right	Central Avenue Northbound Left	Through	Right	Central Avenue Southbound Left	Through	Right
8:15 AM	2	88	8	40	121	13	6	11	6	13	7	16
8:30 AM	8	129	12	46	114	12	2	11	6	13	6	16
8:45 AM	6	137	13	32	112	12	3	12	7	22	10	26
9:00 AM	1	108	10	18	125	13	5	8	4	12	5	14
PHF	0.91											
2022 Existing Traffic	**17**	**462**	**43**	**136**	**472**	**50**	**16**	**42**	**23**	**60**	**28**	**72**
2020 PSCF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
2022 Peak Season Traffic	**16**	**448**	**42**	**132**	**458**	**49**	**16**	**41**	**22**	**58**	**27**	**70**
Compounded Annual Growth Rate	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
2045 Peak Season Traffic	**20**	**568**	**53**	**167**	**581**	**62**	**23**	**58**	**31**	**82**	**38**	**99**

PM PEAK HOUR

Description	10th Street Eastbound Left	Through	Right	10th Street Westbound Left	Through	Right	Central Avenue Northbound Left	Through	Right	Central Avenue Southbound Left	Through	Right
4:30 PM	5	124	12	8	139	15	12	18	11	11	5	13
4:45 PM	6	109	11	16	134	14	13	18	10	10	6	12
5:00 PM	4	110	11	14	144	15	9	26	16	12	6	15
5:15 PM	3	103	10	16	149	16	15	16	10	12	6	14
PHF	0.97											
2022 Existing Traffic	**18**	**446**	**44**	**54**	**566**	**60**	**49**	**78**	**47**	**45**	**23**	**54**
2020 PSCF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
2022 Peak Season Traffic	**17**	**433**	**43**	**52**	**549**	**58**	**48**	**76**	**46**	**44**	**22**	**52**
Compounded Annual Growth Rate	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
2045 Peak Season Traffic	**22**	**549**	**55**	**66**	**696**	**74**	**68**	**107**	**65**	**62**	**31**	**73**

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VOLUME DEVELOPMENT WORKSHEET

10th Street & Lemon Avenue

AM PEAK HOUR

Description	10th Street Eastbound Left	Through	Right	10th Street Westbound Left	Through	Right	Lemon Avenue Northbound Left	Through	Right	Lemon Avenue Southbound Left	Through	Right
8:15 AM	0	100	13	23	159	0	7	0	8	0	0	0
8:30 AM	0	122	16	24	146	0	13	0	6	0	0	0
8:45 AM	0	128	17	18	123	0	7	0	9	0	1	0
9:00 AM	0	80	10	21	86	0	12	0	15	0	0	0
PHF	0.89											
2022 Existing Traffic	**0**	**430**	**56**	**86**	**514**	**0**	**39**	**0**	**38**	**0**	**1**	**0**
2020 PSCF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
2022 Peak Season Traffic	**0**	**417**	**54**	**83**	**499**	**0**	**38**	**0**	**37**	**0**	**1**	**0**
Compounded Annual Growth Rate	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
2045 Peak Season Traffic	**0**	**529**	**69**	**105**	**633**	**0**	**48**	**0**	**47**	**0**	**1**	**0**

PM PEAK HOUR

Description	10th Street Eastbound Left	Through	Right	10th Street Westbound Left	Through	Right	Lemon Avenue Northbound Left	Through	Right	Lemon Avenue Southbound Left	Through	Right
4:30 PM	0	123	16	7	116	0	10	0	14	0	1	0
4:45 PM	0	103	13	8	118	0	22	0	16	0	0	0
5:00 PM	0	99	13	12	102	0	26	0	35	0	1	0
5:15 PM	0	104	14	11	123	0	19	0	21	0	1	0
PHF	0.98											
2022 Existing Traffic	**0**	**429**	**56**	**38**	**459**	**0**	**77**	**0**	**86**	**0**	**3**	**0**
2020 PSCF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
2022 Peak Season Traffic	**0**	**416**	**54**	**37**	**445**	**0**	**75**	**0**	**83**	**0**	**3**	**0**
Compounded Annual Growth Rate	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
2045 Peak Season Traffic	**0**	**528**	**69**	**47**	**565**	**0**	**94**	**0**	**104**	**0**	**4**	**0**

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VOLUME DEVELOPMENT WORKSHEET

10th Street & Orange Avenue

AM PEAK HOUR

Description	10th Street Eastbound Left	Through	Right	10th Street Westbound Left	Through	Right	Orange Avenue Northbound Left	Through	Right	Orange Avenue Southbound Left	Through	Right
8:15 AM	29	69	11	14	66	23	16	17	10	7	46	15
8:30 AM	52	74	12	12	53	18	19	17	11	10	37	12
8:45 AM	51	87	14	17	80	27	21	19	12	5	37	13
9:00 AM	43	66	11	16	73	25	24	23	14	5	38	13
PHF	0.90											
2022 Existing Traffic	**175**	**296**	**48**	**59**	**272**	**93**	**80**	**76**	**47**	**27**	**158**	**53**
2020 PSCF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
2022 Peak Season Traffic	**170**	**287**	**47**	**57**	**264**	**90**	**78**	**74**	**46**	**26**	**153**	**51**
Compounded Annual Growth Rate	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%
2045 Peak Season Traffic	**216**	**364**	**60**	**72**	**335**	**114**	**82**	**78**	**48**	**27**	**161**	**54**

PM PEAK HOUR

Description	10th Street Eastbound Left	Through	Right	10th Street Westbound Left	Through	Right	Orange Avenue Northbound Left	Through	Right	Orange Avenue Southbound Left	Through	Right
4:30 PM	67	75	12	10	48	16	36	46	30	9	31	11
4:45 PM	78	62	10	12	54	18	38	40	25	11	29	10
5:00 PM	100	61	10	14	62	22	29	63	40	9	25	9
5:15 PM	100	71	11	13	61	21	37	49	31	5	32	11
PHF	0.94											
2022 Existing Traffic	**345**	**269**	**43**	**49**	**225**	**77**	**140**	**198**	**126**	**34**	**117**	**41**
2020 PSCF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
2022 Peak Season Traffic	**335**	**261**	**42**	**48**	**218**	**75**	**136**	**192**	**122**	**33**	**113**	**40**
Compounded Annual Growth Rate	1.04%	1.04%	1.04%	1.04%	1.04%	1.04%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%
2045 Peak Season Traffic	**425**	**331**	**53**	**61**	**277**	**95**	**143**	**202**	**129**	**35**	**119**	**42**

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VOLUME DEVELOPMENT WORKSHEET

Boulevard of The Arts & US 41 (N. Tamiami Trail)

PM PEAK HOUR

Description	Boulevard of The Arts Eastbound			Boulevard of The Arts Westbound			US 41 (N. Tamiami Trail) Northbound			US 41 (N. Tamiami Trail) Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
4:45 PM	8	9	9	5	15	12	11	318	23	17	184	13
5:00 PM	6	8	7	10	12	10	11	314	23	14	193	13
5:15 PM	8	14	14	7	14	11	15	323	23	16	184	13
5:30 PM	12	14	12	11	15	12	10	349	25	11	193	13
PHF	0.95											
2022 Existing Traffic	**34**	**45**	**42**	**33**	**56**	**45**	**47**	**1,304**	**94**	**58**	**754**	**52**
2020 PSCF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.98*	*0.98*	*0.98*	*0.98*	*0.98*	*0.98*
2022 Peak Season Traffic	**33**	**44**	**41**	**32**	**54**	**44**	**46**	**1,278**	**92**	**57**	**739**	**51**
Annual growth rate	3.15%	3.15%	3.15%	3.15%	3.15%	3.15%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
2045 Peak Season Traffic	**67**	**90**	**84**	**65**	**110**	**90**	**58**	**1607**	**116**	**72**	**929**	**64**

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VOLUME DEVELOPMENT WORKSHEET

Boulevard of The Arts & Cocoanut Avenue

PM PEAK HOUR

Description	Boulevard of The Arts Eastbound			Boulevard of The Arts Westbound			Cocoanut Avenue Northbound			Cocoanut Avenue Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
4:45 PM	18	30	25	0	17	3	23	43	5	9	29	2
5:00 PM	12	34	20	1	16	9	21	53	4	4	24	5
5:15 PM	5	33	21	1	23	7	29	49	5	3	27	4
5:30 PM	7	43	20	1	21	5	19	29	10	8	31	8
PHF	0.99											
2020 Existing Traffic	**42**	**140**	**86**	**3**	**77**	**24**	**92**	**174**	**24**	**24**	**111**	**19**
PSCF (From Associated TIA)	*1.19*	*1.19*	*1.19*	*1.19*	*1.19*	*1.19*	*1.19*	*1.19*	*1.19*	*1.19*	*1.19*	*1.19*
2020 Peak Season Traffic	**50**	**167**	**102**	**4**	**92**	**29**	**109**	**207**	**29**	**29**	**132**	**23**
Compounded Annual Growth Rate	3.15%	3.15%	3.15%	3.15%	3.15%	3.15%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%
2022 Peak Season Traffic	**53**	**178**	**109**	**4**	**98**	**31**	**110**	**210**	**29**	**29**	**134**	**23**
2045 Peak Season Traffic	**109**	**363**	**221**	**9**	**200**	**63**	**129**	**245**	**34**	**34**	**156**	**27**

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VOLUME DEVELOPMENT WORKSHEET

Boulevard of The Arts & Central Avenue

PM PEAK HOUR

Description	Boulevard of The Arts Eastbound Left	Through	Right	Boulevard of The Arts Westbound Left	Through	Right	Central Avenue Northbound Left	Through	Right	Central Avenue Southbound Left	Through	Right
4:45 PM	1	34	9	3	14	4	11	19	0	3	22	3
5:00 PM	5	24	10	1	14	4	10	34	3	4	23	3
5:15 PM	2	25	6	2	17	1	12	25	4	4	19	3
5:30 PM	1	15	5	2	17	2	11	30	4	2	24	1
PHF	0.91											
2015 Existing Traffic	**9**	**98**	**30**	**8**	**62**	**11**	**44**	**108**	**11**	**13**	**88**	**10**
PSCF (From Associated TIA)	*1.22*	*1.22*	*1.22*	*1.22*	*1.22*	*1.22*	*1.22*	*1.22*	*1.22*	*1.22*	*1.22*	*1.22*
2015 Peak Season Traffic	**11**	**120**	**37**	**10**	**76**	**13**	**54**	**132**	**13**	**16**	**107**	**12**
Compounded Annual Growth Rate	3.15%	3.15%	3.15%	3.15%	3.15%	3.15%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
2022 Peak Season Traffic	**14**	**149**	**46**	**12**	**94**	**16**	**60**	**147**	**14**	**18**	**119**	**13**
2045 Peak Season Traffic	**28**	**304**	**94**	**25**	**193**	**33**	**85**	**207**	**20**	**25**	**168**	**19**

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VOLUME DEVELOPMENT WORKSHEET

Boulevard of The Arts & Lemon Avenue

PM PEAK HOUR

Description	Boulevard of The Arts Eastbound Left	Through	Right	Boulevard of The Arts Westbound Left	Through	Right	Lemon Avenue Northbound Left	Through	Right	Lemon Avenue Southbound Left	Through	Right
4:45 PM	1	20	9	0	5	2	6	23	2	4	6	0
5:00 PM	1	20	6	2	12	1	5	48	5	0	15	0
5:15 PM	5	24	6	2	12	2	5	44	2	1	10	2
5:30 PM	0	9	8	2	2	5	4	28	5	1	10	0
PHF	0.83											
2015 Existing Traffic	**7**	**73**	**29**	**6**	**31**	**10**	**20**	**143**	**14**	**6**	**41**	**2**
PSCF (From Associated TIA)	*0.99*	*0.99*	*0.99*	*0.99*	*0.99*	*0.99*	*0.99*	*0.99*	*0.99*	*0.99*	*0.99*	*0.99*
2015 Peak Season Traffic	**7**	**72**	**29**	**6**	**31**	**10**	**20**	**142**	**14**	**6**	**41**	**2**
Compounded Annual Growth Rate	3.15%	3.15%	3.15%	3.15%	3.15%	3.15%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
2022 Peak Season Traffic	**9**	**89**	**36**	**7**	**39**	**12**	**21**	**152**	**15**	**6**	**44**	**2**
2045 Peak Season Traffic	**18**	**183**	**74**	**15**	**79**	**25**	**27**	**191**	**19**	**8**	**55**	**3**

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VOLUME DEVELOPMENT WORKSHEET

Boulevard of The Arts & Orange Avenue

PM PEAK HOUR

Description	Boulevard of The Arts Eastbound			Boulevard of The Arts Westbound			Orange Avenue Northbound			Orange Avenue Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
4:45 PM	13	6	15	8	3	7	6	92	16	12	69	5
5:00 PM	15	8	17	7	2	6	8	111	19	11	62	4
5:15 PM	13	7	15	8	3	7	6	86	15	12	67	5
5:30 PM	7	3	8	7	3	6	6	93	16	10	55	4
PHF	0.91											
2022 Existing Traffic	**48**	**24**	**55**	**30**	**11**	**26**	**26**	**382**	**66**	**45**	**253**	**18**
2020 PSCF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
2022 Peak Season Traffic	**47**	**23**	**53**	**29**	**11**	**25**	**25**	**371**	**64**	**44**	**245**	**17**
Compounded Annual Growth Rate	3.15%	3.15%	3.15%	3.15%	3.15%	3.15%	0.23%	0.23%	0.23%	0.23%	0.23%	0.23%
2045 Peak Season Traffic	**96**	**47**	**108**	**59**	**22**	**51**	**26**	**391**	**67**	**46**	**258**	**18**

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Appendix D:

Signal Timings

Designed By:	TS
Date:	5/16/18
Checked By:	HA
Date:	5-16-18

Location Details			
Section:		Mile Post:	
Major Street:	10th St	Orientation:	E-W
Minor Street:	N Cocoanut Ave	Orientation:	N-S
Signal ID:	2223	System ID:	

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		EB		SB		WB		NB	
Turn Type									
Min Green		7		7		7		7	
Ext		4.0		4.0		4.0		4.0	
Yellow		4.1		3.4		4.1		3.4	
All Red		2.0		2.6		2.0		2.6	
Max I		30		25		30		25	
Max II		65		55		65		55	
Walk		7		7					
Flashing Don't Walk		13		29					
Detector Memory									
Det. Cross Switch.									
Dual Entry		ON		ON		ON		ON	
Vehicle Recall		MIN				MIN			
CNA									
Rest in Walk									
Coord Phase		YES							

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits								Offset	Sequence	Coord Ø
1		100		60		40		60		40	15	1	2
3		100		46		54		46		54	73	1	2

Offset Reference Point
End of Green

Notes:
1) Use 'Max I' during FREE Operation and 'Max Inhibit' during coordination
2) Use Fixed Force Offs
3) Sequence 1 used during FREE operation
4) Max recall Ø2 and Ø6 during coordination
5) Program 5 sec detection delay for Ø4 and Ø8
6) Controller Brand: Naztec
6.a) Program 'Return Hold' during coordination
6.b) Short/Long percentage is 12/22 for all patterns
6.c) MinPerm for pedestrian phases is programmed during coordination
6.d) Stop in Walk: ON
6.e) Walk Recycle: P3478_INH

SOP 1 (Sequence 1)

Ring - 1	2	4
Ring - 2	6	8

Time of Day Plan

Designed By:	TS	System ID:	
Date:	5/16/18	Section:	
Checked By:	HA	Arterial:	***10th St***
Date:	5-16-18	From:	***N Cocoanut Ave***
		To:	***N Cocoanut Ave***

ALL SEASON PLAN

Day	Time	Pattern (C/S/O)	Cycle Length
Monday Thru Friday	0000 - 0730	254	FREE
	0730 - 0930	1	100
	0930 - 1530	254	FREE
	1530 - 1800	3	100
	1800 - 0000	254	FREE
Saturday	0000 - 0000	254	FREE
Sunday	0000 - 0000	254	FREE

Designed By:	TS
Date:	5/16/18
Checked By:	HA
Date:	5-16-18

Location Details			
Section:		Mile Post:	
Major Street:	100th St	Orientation:	E-W
Minor Street:	N Central Ave	Orientation:	N-S
Signal ID:	2225	System ID:	

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		EB		SB		WB		NB	
Turn Type									
Min Green		7		7		24		7	
Ext		4.0		4.0		4.0		4.0	
Yellow		4.1		3.7		4.1		3.7	
All Red		2.0		2.0		2.0		2.0	
Max I		35		25		35		25	
Max II		70		50		70		50	
Walk		7							
Flashing Don't Walk		16							
Detector Memory									
Det. Cross Switch.									
Dual Entry		ON		ON		ON		ON	
Vehicle Recall		MIN				MIN			
CNA									
Rest in Walk									
Coord Phase		YES							

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits								Offset	Sequence	Coord Ø
1		100		70		30		70		30	23	1	2
3		100		50		50		50		50	50	1	2

Offset Reference Point
End of Green

Notes:
1) Use 'Max I' during FREE Operation and 'Max Inhinit' during coordination
2) Use Fixed Force Offs
3) Sequence 1 used during FREE operation
4) Max recall Ø2 and Ø6 during coordination
5) Controller Brand: Naztec
5.a) Program 'Return Hold' during coordination
5.b) Short/Long percentage is 12/22 for all patterns
5.c) MinPerm for pedestrian phases is programmed during coordination
5.d) Stop in Walk: ON
5.e) Walk Recycle: P3478_INH

SCP 1 (Sequence 1)

Ring - 1	2	4
Ring - 2	6	8

Time of Day Plan

Designed By:	TS	System ID:	
Date:	5/16/18	Section:	
Checked By:	HA	Arterial:	***10th St***
Date:	5-16-18	From:	***N Central Ave***
		To:	***N Central Ave***

ALL SEASON PLAN

Day	Time	Pattern (C/S/O)	Cycle Length
Monday Thru Friday	0000 - 0730	254	FREE
	0730 - 0930	1	100
	0930 - 1530	254	FREE
	1530 - 1800	3	100
	1800 - 0000	254	FREE
Saturday	0000 - 0000	254	FREE
Sunday	0000 - 0000	254	FREE

Designed By:	TS
Date:	5/16/18
Checked By:	HA
Date:	5-16-18

Location Details			
Section:		Mile Post:	
Major Street:	10th St	Orientation:	E-W
Minor Street:	N Lemon Ave	Orientation:	N-S
Signal ID:	2226	System ID:	

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		EB		SB		WB		NB	
Turn Type									
Min Green		7		7		7		7	
Ext		4.0		4.0		4.0		4.0	
Yellow		4.1		3.4		4.1		4.1	
All Red		2.0		2.0		2.0		2.0	
Max I		35		15		35		15	
Max II		65		20		65		35	
Walk		7				7		7	
Flashing Don't Walk		22				15		26	
Detector Memory				ON					
Det. Cross Switch.									
Dual Entry		ON				ON			
Vehicle Recall		MIN				MIN			
CNA									
Rest in Walk									
Coord Phase		YES							

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits								Offset	Sequence	Coord Ø
1		100		63		16		63		21	8	1	2
3		100		59		16		50		34	89	1	2

Offset Reference Point
End of Green

Notes:
1) Use 'Max I' during FREE Operation and 'Max Inhibit' during coordination
2) Use Fixed Force Offs
3) Sequence 1 used during FREE operation
4) Max recall Ø2 and Ø6 during coordination
5) Program 5 sec detection delay for Ø6 right turn movement
6) Controller Brand: Naztec
6.a) Program 'Return Hold' during coordination
6.b) Short/Long percentage is 12/22 for all patterns
6.c) MinPerm for pedestrian phases is programmed during coordination
6.d) Stop in Walk: ON
6.e) Walk Recycle: P3478_INH

SOP Special (Sequence 1)

Ring - 1	2	4	8
Ring - 2	6		

Time of Day Plan

Designed By:	TS	System ID:	
Date:	5/16/18	Section:	
Checked By:	HA	Arterial:	***10th St***
Date:	5-16-18	From:	***N Lemon Ave***
		To:	***N Lemon Ave***

ALL SEASON PLAN

Day	Time	Pattern (C/S/O)	Cycle Length
Monday Thru Friday	0000 - 0730	254	FREE
	0730 - 0930	1	100
	0930 - 1530	254	FREE
	1530 - 1800	3	100
	1800 - 0000	254	FREE
Saturday	0000 - 0000	254	FREE
Sunday	0000 - 0000	254	FREE

Designed By:	TS
Date:	5/16/18
Checked By:	HA
Date:	5-16-18

Location Details			
Section:		Mile Post:	
Major Street:	N Orange Ave	Orientation:	N-S
Minor Street:	10th St	Orientation:	E-W
Signal ID:	2227	System ID:	

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	SBLT	NB		EB	NBLT	SB	EBLT	WB	
Turn Type	Prot/Perm				Prot/Perm		Prot/Perm		
Min Green	5	7		7	5	7	5	7	
Ext	3.0	4.0		4.0	3.0	4.0	3.0	4.0	
Yellow	3.7	3.7		4.1	3.7	3.7	4.1	4.1	
All Red	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Max I	15	90		90	15	90	40	45	
Max II	15	90		90	15	90	40	45	
Walk		7		7		7			
Flashing Don't Walk		18		11		18			
Detector Memory						ON			
Det. Cross Switch.	Ø6				Ø2		Ø4		
Dual Entry		ON		ON		ON		ON	
Vehicle Recall		MIN				MIN			
CNA									
Rest in Walk									
Coord Phase		YES							

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits								Offset	Sequence	Coord Ø
1		100	15	39		46	15	39	19	27	88	1	2
3		100	15	35		50	15	35	27	23	68	1	2

Offset Reference Point
End of Green

Notes:
1) Use 'Max I' during FREE Operation and 'Max Inhibit' during coordination
2) Sequence 1 used during FREE operation
3) Max recall for Ø2, Ø4, Ø6 and Ø8 during coordination
4) Program 5 sec detection delay for Ø4 and Ø8
5) Controller Brand: Naztec
5.a) Program 'Return Hold' during coordination
5.b) Short/Long percentage is 12/22 for all patterns
5.c) MinPerm for pedestrian phases is programmed during coordination
5.d) Stop in Walk: ON
5.e) Walk Recycle: P3478_INH
5.f) Program phase restriction to omit Ø1 during Ø2 green, omit Ø5 during Ø6 green.

SCP Special (Sequence 1)

Ring - 1	1	2	4	
Ring - 2	5	6	7	8

Time of Day Plan

Designed By:	TS	System ID:	
Date:	5/16/18	Section:	
Checked By:	HA	Arterial:	***N Orange Ave***
Date:	5-16-18	From:	***10th St***
		To:	***10th St***

ALL SEASON PLAN

Day	Time	Pattern (C/S/O)	Cycle Length
Monday Thru Friday	0000 - 0700	254	FREE
	0700 - 0930	1	100
	0930 - 1500	254	FREE
	1500 - 1800	3	100
	1800 - 0000	254	FREE
Saturday	0000 - 0000	254	FREE
Sunday	0000 - 0000	254	FREE

Designed By:	TS
Date:	5/16/18
Checked By:	HA
Date:	5-16-18

Location Details			
Section:		Mile Post:	
Major Street:	N Orange Ave	Orientation:	N-S
Minor Street:	Blvd of the Arts	Orientation:	E-W
Signal ID:	2234	System ID:	

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		NB		EB		SB		WB	
Turn Type									
Min Green		7		7		7		7	
Ext		3.0		3.0		3.0		3.0	
Yellow		3.7		3.4		3.7		3.4	
All Red		2.6		2.0		2.6		2.0	
Max I		30		20		30		15	
Max II		75		30		75		25	
Walk		7		7		7		7	
Flashing Don't Walk		12		8		12		12	
Detector Memory									
Det. Cross Switch.									
Dual Entry		ON		ON		ON		ON	
Vehicle Recall		MIN				MIN			
CNA									
Rest in Walk									
Coord Phase		YES							

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits								Offset	Sequence	Coord Ø
1		50		33		17		33		17	5	1	2
3		50		34		16		34		16	46	1	2

Offset Reference Point

Notes:
1) Use 'Max I' during FREE Operation and 'Max Inhibit' during coordination
2) Sequence 1 used during FREE operation
3) Max recall for Ø2 and Ø6 during coordination
4) Program 5 sec detection delay for Ø4 and Ø8
5) Controller Brand: Naztec
5.a) Program 'Return Hold' during coordination
5.b) Short/Long percentage is 12/22 for all patterns
5.c) MinPerm for pedestrian phases is programmed during coordination
5.d) Stop in Walk: ON
5.e) Walk Recycle: P3478_INH

SOP 10 (Sequence 1)

Ring - 1	2	4
Ring - 2	6	8

Time of Day Plan

Designed By:	TS	System ID:	
Date:	5/16/18	Section:	
Checked By:	HA	Arterial:	***N Orange Ave***
Date:	5-16-18	From:	***Blvd of the Arts***
		To:	***Blvd of the Arts***

ALL SEASON PLAN

Day	Time	Pattern (C/S/O)	Cycle Length
Monday Thru Friday	0000 - 0500	255	FLASH
	0500 - 0700	254	FREE
	0700 - 0930	1	100
	0930 - 1500	254	FREE
	1500 - 1800	3	100
	1800 - 2200	254	FREE
	2200 - 0000	255	FLASH
Saturday	0000 - 0500	255	FLASH
	0500 - 2200	254	FREE
	2200 - 0000	255	FLASH
Sunday	0000 - 0500	255	FLASH
	0500 - 2200	254	FREE
	2200 - 0000	255	FLASH

Designed By:	***EME***
Date:	***07/2019***
Checked By:	***RJ***
Date:	***07/2019***

Location Details			
Section:	***17020***	Mile Post:	***19.003***
Major Street:	***SR 45 / US 41***	Orientation:	***N-S***
Minor Street:	***Blvd of the Arts***	Orientation:	***E-W***
Signal ID:	***916***	System ID:	***17000 A***

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	***NBLT***	***SB***		***WB***		***NB***		***EB***	**Movements 1 is having 4 section FYA signal head**
Turn Type	***Prot/Perm***								
Min Green	**5**	**12**		**7**		**12**		**7**	
Ext	**3.0**	**5.0**		**3.0**		**5.0**		**3.0**	
Yellow	**4.5**	**4.5**		**3.5**		**4.5**		**3.5**	
All Red	**2.0**	**2.0**		**2.2**		**2.0**		**2.2**	
Max I	**15**	**50**		**60**		**60**		**60**	
Max II	**25**	**135**		**50**		**155**		**50**	
Walk		**7**		**7**		**7**		**7**	
Flashing Don't Walk		**24**		**21**		**22**		**22**	
Detector Memory									
Det. Cross Switch.	**Ø6**								
Dual Entry		**ON**		**ON**		**ON**		**ON**	
Vehicle Recall		**MIN**				**MIN**			
CNA									
Rest in Walk									

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits								Offset	Sequence	Coord Ø
1		**170**	***20***	***132***		***18***		***152***		***18***	***10***	***1***	***2***
2		**170**	***24***	***121***		***25***		***145***		***25***	***106***	***1***	***2***
3		**170**	***17***	***123***		***30***		***140***		***30***	***93***	***1***	***2***
4		**130**	***21***	***87***		***22***		***108***		***22***	***100***	***1***	***2***
5		**120**	***19***	***67***		***34***		***86***		***34***	***69***	***1***	***2***
6		**170**	***21***	***113***		***36***		***134***		***36***	***97***	***1***	***2***
7		**120**	***23***	***78***		***19***		***101***		***19***	***77***	***1***	***2***
8		**120**	***17***	***83***		***20***		***100***		***20***	***70***	***1***	***2***
9		**170**	***15***	***106***		***49***		***121***		***49***	***127***	***1***	***2***
10		**120**	***19***	***74***		***27***		***93***		***27***	***70***	***1***	***2***

Offset Reference Point
End of Green

Notes:
1) Use 'Max I' during FREE Operation and 'Max II' during coordination.
2) Use Fixed Force Offs.
3) Sequence 1 used during FREE operation
4) Max recall Ø2 and Ø6 during coordination.
5) Program 5 sec detection delay for minor street right turn movements
6) Controller type: Naztec
6.a) Program 'Return Hold' during coordination
6.b) Short/Long percentage is 12/22 for all patterns
6.c) MinPerm for pedestrian phases is programmed during coordination
6.d) Program phase restriction to omit Ø1 during Ø2 green
in addition to detector cross switching
6.e) Stop in Walk: ON
6.f) Ped Recycle: P3478_INH

SOP 11 (Sequence 1)

Ring - 1	1	2	4
Ring - 2	6		8

6.g) Shortway+: ON
7) Program "FYA Delay" of 2.0 seconds for FYA indication for movement 1.

Appendix E:

Intersection Analysis Sheets: Existing Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt												
Flt Protected												
Satd. Flow (prot)	0	1770	1770	0	1770	1770	0	3539	0	0	3539	0
Flt Permitted												
Satd. Flow (perm)	0	1770	1770	0	1770	1770	0	3539	0	0	3539	0
Adj. Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Control Type: Roundabout	
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	327	62	92	348	48	44	32	39	81	70	92
Future Volume (vph)	9	327	62	92	348	48	44	32	39	81	70	92
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.976			0.982			0.955			0.949	
Flt Protected	0.950			0.950				0.981			0.984	
Satd. Flow (prot)	1770	3454	0	1770	3476	0	0	1745	0	0	1739	0
Flt Permitted	0.502			0.506				0.720			0.840	
Satd. Flow (perm)	935	3454	0	943	3476	0	0	1281	0	0	1485	0
Satd. Flow (RTOR)		34			23			28			33	
Adj. Flow (vph)	10	355	67	100	378	52	48	35	42	88	76	100
Lane Group Flow (vph)	10	422	0	100	430	0	0	125	0	0	264	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	24.1	24.1		24.1	24.1		24.0	24.0		24.0	24.0	
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0		40.0	40.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	53.9	53.9		53.9	53.9		34.0	34.0		34.0	34.0	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	66.1	66.1		66.1	66.1			21.8			21.8	
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.22			0.22	
v/c Ratio	0.02	0.18		0.16	0.19			0.42			0.76	
Control Delay	8.1	7.0		4.4	3.4			28.4			45.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.1	7.0		4.4	3.4			28.4			45.0	
LOS	A	A		A	A			C			D	
Approach Delay		7.0			3.6			28.4			45.0	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	2	44		11	23			53			139	
Queue Length 95th (ft)	10	82		28	42			97			207	
Internal Link Dist (ft)		265			585			747			600	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	120			150								
Base Capacity (vph)	617	2293		623	2304			454			526	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.02	0.18		0.16	0.19			0.28			0.50	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 15 (15%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Cocoanut Avenue & 10th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	327	62	92	348	48	44	32	39	81	70	92
Future Volume (veh/h)	9	327	62	92	348	48	44	32	39	81	70	92
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	355	67	100	378	52	48	35	42	88	76	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	685	2044	382	690	2148	293	132	97	91	139	104	119
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	958	2988	558	965	3141	429	422	499	466	469	534	611
Grp Volume(v), veh/h	10	210	212	100	213	217	125	0	0	264	0	0
Grp Sat Flow(s),veh/h/ln	958	1777	1770	965	1777	1793	1386	0	0	1614	0	0
Q Serve(g_s), s	0.4	4.2	4.3	4.2	4.3	4.4	0.0	0.0	0.0	8.1	0.0	0.0
Cycle Q Clear(g_c), s	4.7	4.2	4.3	8.5	4.3	4.4	7.4	0.0	0.0	15.6	0.0	0.0
Prop In Lane	1.00		0.32	1.00		0.24	0.38		0.34	0.33		0.38
Lane Grp Cap(c), veh/h	685	1215	1210	690	1215	1226	320	0	0	363	0	0
V/C Ratio(X)	0.01	0.17	0.18	0.14	0.17	0.18	0.39	0.00	0.00	0.73	0.00	0.00
Avail Cap(c_a), veh/h	685	1215	1210	690	1215	1226	534	0	0	588	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	0.99	0.99	0.99	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.5	5.7	5.7	7.2	5.7	5.7	35.1	0.0	0.0	38.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.4	0.3	0.3	1.1	0.0	0.0	4.0	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	0.1	1.5	1.5	0.9	1.5	1.5	2.7	0.0	0.0	6.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.6	6.0	6.0	7.6	6.0	6.0	36.2	0.0	0.0	42.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		432			530			125			264	
Approach Delay, s/veh		6.0			6.3			36.2			42.4	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		74.5		25.5		74.5		25.5				
Change Period (Y+Rc), s		6.1		6.0		6.1		6.0				
Max Green Setting (Gmax), s		53.9		34.0		53.9		34.0				
Max Q Clear Time (g_c+I1), s		6.7		17.6		10.5		9.4				
Green Ext Time (p_c), s		4.0		2.0		4.9		1.0				

Intersection Summary												
HCM 6th Ctrl Delay			16.0									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	448	42	132	458	49	16	41	22	58	27	70
Future Volume (vph)	16	448	42	132	458	49	16	41	22	58	27	70
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.987			0.986			0.948			0.939	
Flt Protected	0.950			0.950			0.950				0.982	
Satd. Flow (prot)	1770	3493	0	1770	3490	0	1770	1766	0	0	1718	0
Flt Permitted	0.446			0.454			0.546				0.847	
Satd. Flow (perm)	831	3493	0	846	3490	0	1017	1766	0	0	1482	0
Satd. Flow (RTOR)		20			22			24			39	
Adj. Flow (vph)	17	487	46	143	498	53	17	45	24	63	29	76
Lane Group Flow (vph)	17	533	0	143	551	0	17	69	0	0	168	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		24.0	24.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	24.1	24.1		30.1	30.1		23.7	23.7		23.7	23.7	
Total Split (s)	70.0	70.0		70.0	70.0		30.0	30.0		30.0	30.0	
Total Split (%)	70.0%	70.0%		70.0%	70.0%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	63.9	63.9		63.9	63.9		24.3	24.3		24.3	24.3	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.7	5.7			5.7	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	73.2	73.2		73.2	73.2		15.0	15.0			15.0	
Actuated g/C Ratio	0.73	0.73		0.73	0.73		0.15	0.15			0.15	
v/c Ratio	0.03	0.21		0.23	0.22		0.11	0.24			0.66	
Control Delay	4.2	4.0		6.1	4.3		35.5	26.6			42.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	4.2	4.0		6.1	4.3		35.5	26.6			42.1	
LOS	A	A		A	A		D	C			D	
Approach Delay		4.0			4.7			28.3			42.1	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	2	47		40	74		10	25			78	
Queue Length 95th (ft)	m8	67		33	25		28	60			137	
Internal Link Dist (ft)		585			604			682			630	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	150			205			50					
Base Capacity (vph)	608	2561		619	2559		247	447			389	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.03	0.21		0.23	0.22		0.07	0.15			0.43	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 23 (23%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 10.0	Intersection LOS: A
Intersection Capacity Utilization 64.2%	ICU Level of Service C
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 9: Central Avenue & 10th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	448	42	132	458	49	16	41	22	58	27	70
Future Volume (veh/h)	16	448	42	132	458	49	16	41	22	58	27	70
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	487	46	143	498	53	17	45	24	63	29	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	662	2419	228	714	2389	253	213	166	89	112	50	93
Arrive On Green	1.00	1.00	1.00	0.74	0.74	0.74	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	857	3283	309	871	3242	344	1289	1148	612	432	347	644
Grp Volume(v), veh/h	17	263	270	143	272	279	17	0	69	168	0	0
Grp Sat Flow(s),veh/h/ln	857	1777	1815	871	1777	1808	1289	0	1760	1423	0	0
Q Serve(g_s), s	0.1	0.0	0.0	5.2	4.8	4.8	0.0	0.0	3.5	8.2	0.0	0.0
Cycle Q Clear(g_c), s	4.9	0.0	0.0	5.2	4.8	4.8	1.7	0.0	3.5	11.7	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.19	1.00		0.35	0.37		0.45
Lane Grp Cap(c), veh/h	662	1309	1337	714	1309	1333	213	0	255	256	0	0
V/C Ratio(X)	0.03	0.20	0.20	0.20	0.21	0.21	0.08	0.00	0.27	0.66	0.00	0.00
Avail Cap(c_a), veh/h	662	1309	1337	714	1309	1333	340	0	428	404	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	0.99	0.99	0.99	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.2	0.0	0.0	4.1	4.1	4.1	37.3	0.0	38.0	41.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.3	0.6	0.4	0.4	0.2	0.0	0.8	4.0	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	0.0	0.1	0.1	0.8	1.5	1.5	0.4	0.0	1.6	4.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.2	0.3	0.3	4.8	4.4	4.4	37.5	0.0	38.8	45.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	A
Approach Vol, veh/h		550			694			86			168	
Approach Delay, s/veh		0.3			4.5			38.6			45.8	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		79.8		20.2		79.8		20.2				
Change Period (Y+Rc), s		6.1		* 5.7		6.1		* 5.7				
Max Green Setting (Gmax), s		63.9		* 24		63.9		* 24				
Max Q Clear Time (g_c+I1), s		6.9		13.7		7.2		5.5				
Green Ext Time (p_c), s		5.4		0.9		7.1		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

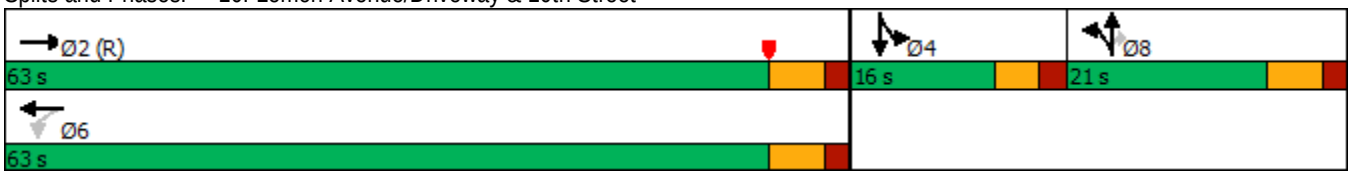
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	417	54	83	499	0	38	0	37	0	1	0
Future Volume (vph)	0	417	54	83	499	0	38	0	37	0	1	0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.983							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	3479	0	1770	3539	0	1681	1681	1583	0	1863	0
Flt Permitted				0.463			0.950	0.950				
Satd. Flow (perm)	0	3479	0	862	3539	0	1681	1681	1583	0	1863	0
Satd. Flow (RTOR)		23							93			
Adj. Flow (vph)	0	453	59	90	542	0	41	0	40	0	1	0
Lane Group Flow (vph)	0	512	0	90	542	0	20	21	40	0	1	0
Turn Type		NA		Perm	NA		Split	NA	Perm		NA	
Protected Phases		2			6		8	8		4	4	
Permitted Phases				6					8			
Detector Phase		2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)		7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)		35.1		28.1	28.1		39.1	39.1	39.1	12.4	12.4	
Total Split (s)		63.0		63.0	63.0		21.0	21.0	21.0	16.0	16.0	
Total Split (%)		63.0%		63.0%	63.0%		21.0%	21.0%	21.0%	16.0%	16.0%	
Maximum Green (s)		56.9		56.9	56.9		14.9	14.9	14.9	10.6	10.6	
Yellow Time (s)		4.1		4.1	4.1		4.1	4.1	4.1	3.4	3.4	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)		6.1		6.1	6.1		6.1	6.1	6.1		5.4	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Gap (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Recall Mode		C-Max		Max	Max		None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0	7.0			
Flash Dont Walk (s)		22.0		15.0	15.0		26.0	26.0	26.0			
Pedestrian Calls (#/hr)		0		0	0		0	0	0			
Act Effct Green (s)		81.2		81.2	81.2		8.0	8.0	8.0		7.0	
Actuated g/C Ratio		0.81		0.81	0.81		0.08	0.08	0.08		0.07	
v/c Ratio		0.18		0.13	0.19		0.15	0.16	0.19		0.01	
Control Delay		2.2		4.2	3.3		44.8	45.1	2.0		43.0	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay		2.2		4.2	3.3		44.8	45.1	2.0		43.0	
LOS		A		A	A		D	D	A		D	
Approach Delay		2.2			3.5			23.7			43.0	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)		19		4	12		12	13	0		1	
Queue Length 95th (ft)		45		m47	m126		36	37	0		6	
Internal Link Dist (ft)		604			575			678			183	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				90			270		270			
Base Capacity (vph)		2828		699	2873		250	250	315		197	
Starvation Cap Reductn		0		0	0		0	0	0		0	
Spillback Cap Reductn		0		0	0		0	0	0		0	
Storage Cap Reductn		0		0	0		0	0	0		0	
Reduced v/c Ratio		0.18		0.13	0.19		0.08	0.08	0.13		0.01	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 8 (8%), Referenced to phase 2:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.19	
Intersection Signal Delay: 4.3	Intersection LOS: A
Intersection Capacity Utilization 42.1%	ICU Level of Service A
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 10: Lemon Avenue/Driveway & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	417	54	83	499	0	38	0	37	0	1	0
Future Volume (veh/h)	0	417	54	83	499	0	38	0	37	0	1	0
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	453	59	90	542	0	41	0	40	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2403	311	747	2699	0	223	0	99	0	4	0
Arrive On Green	0.00	1.00	1.00	1.00	1.00	0.00	0.06	0.00	0.06	0.00	0.00	0.00
Sat Flow, veh/h	0	3257	410	888	3647	0	3563	0	1585	0	1870	0
Grp Volume(v), veh/h	0	253	259	90	542	0	41	0	40	0	1	0
Grp Sat Flow(s),veh/h/ln	0	1777	1797	888	1777	0	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	2.4	0.0	0.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	2.4	0.0	0.1	0.0
Prop In Lane	0.00		0.23	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	1349	1364	747	2699	0	223	0	99	0	4	0
V/C Ratio(X)	0.00	0.19	0.19	0.12	0.20	0.00	0.18	0.00	0.40	0.00	0.28	0.00
Avail Cap(c_a), veh/h	0	1349	1364	747	2699	0	531	0	236	0	198	0
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.18	0.18	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	45.1	0.0	49.8	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.1	0.0	0.0	0.6	0.0	3.7	0.0	51.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	0.0	0.0	0.5	0.0	1.0	0.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.3	0.3	0.1	0.0	0.0	45.0	0.0	48.8	0.0	101.4	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	A	F	A
Approach Vol, veh/h		512			632			81			1	
Approach Delay, s/veh		0.3			0.0			46.9			101.4	
Approach LOS		A			A			D			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	82.0	5.6	82.0	12.4
Change Period (Y+Rc), s	6.1	5.4	6.1	6.1
Max Green Setting (Gmax), s	56.9	10.6	56.9	14.9
Max Q Clear Time (g_c+I1), s	2.0	2.1	2.0	4.4
Green Ext Time (p_c), s	5.0	0.0	6.9	0.2

Intersection Summary	
HCM 6th Ctrl Delay	3.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

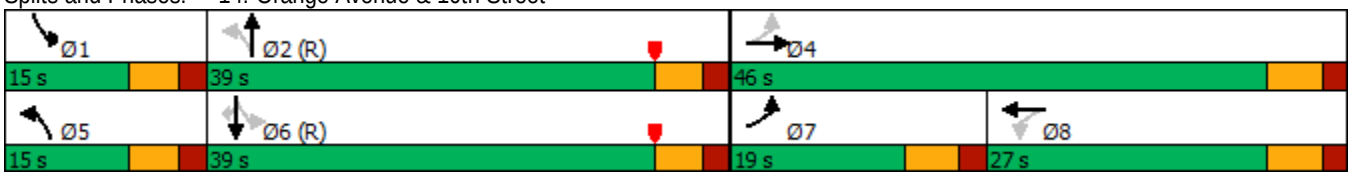
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	287	47	57	264	90	78	74	46	26	153	51
Future Volume (vph)	170	287	47	57	264	90	78	74	46	26	153	51
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.970			0.942				0.850
Flt Protected	0.950				0.993		0.950			0.950		
Satd. Flow (prot)	1770	1824	0	0	1794	0	1770	1755	0	1770	1863	1583
Flt Permitted	0.194				0.881		0.594			0.674		
Satd. Flow (perm)	361	1824	0	0	1592	0	1106	1755	0	1255	1863	1583
Satd. Flow (RTOR)		10			13			34				163
Adj. Flow (vph)	185	312	51	62	287	98	85	80	50	28	166	55
Lane Group Flow (vph)	185	363	0	0	447	0	85	130	0	28	166	55
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	7.0		7.0	7.0		5.0	7.0		5.0	7.0	7.0
Minimum Split (s)	11.1	24.1		24.1	24.1		10.7	23.7		10.7	23.7	23.7
Total Split (s)	19.0	46.0		27.0	27.0		15.0	39.0		15.0	39.0	39.0
Total Split (%)	19.0%	46.0%		27.0%	27.0%		15.0%	39.0%		15.0%	39.0%	39.0%
Maximum Green (s)	12.9	39.9		20.9	20.9		9.3	33.3		9.3	33.3	33.3
Yellow Time (s)	4.1	4.1		4.1	4.1		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.1	6.1			6.1		5.7	5.7		5.7	5.7	5.7
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	4.0		3.0	4.0	4.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Max		Max	Max		None	C-Max		None	C-Max	C-Max
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	11.0
Pedestrian Calls (#/hr)		0		0	0			0			0	0
Act Effct Green (s)	39.9	39.9			22.3		46.0	40.8		42.3	37.0	37.0
Actuated g/C Ratio	0.40	0.40			0.22		0.46	0.41		0.42	0.37	0.37
v/c Ratio	0.61	0.50			1.22		0.15	0.18		0.05	0.24	0.08
Control Delay	29.6	26.1			157.2		14.9	16.3		14.2	24.5	0.2
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	29.6	26.1			157.2		14.9	16.3		14.2	24.5	0.2
LOS	C	C			F		B	B		B	C	A
Approach Delay		27.3			157.2			15.8			18.0	
Approach LOS		C			F			B			B	
Queue Length 50th (ft)	101	208			~359		28	41		9	75	0
Queue Length 95th (ft)	140	309			#558		55	85		24	130	0
Internal Link Dist (ft)		575			583			465			505	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)							100			60		150
Base Capacity (vph)	325	733			365		574	735		606	689	688
Starvation Cap Reductn	0	0			0		0	0		0	0	0
Spillback Cap Reductn	0	0			0		0	0		0	0	0
Storage Cap Reductn	0	0			0		0	0		0	0	0
Reduced v/c Ratio	0.57	0.50			1.22		0.15	0.18		0.05	0.24	0.08

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 88 (88%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.22
Intersection Signal Delay: 63.8 Intersection LOS: E
Intersection Capacity Utilization 72.5% ICU Level of Service C
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Orange Avenue & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	287	47	57	264	90	78	74	46	26	153	51
Future Volume (veh/h)	170	287	47	57	264	90	78	74	46	26	153	51
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	185	312	51	62	287	98	85	80	50	28	166	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	626	102	84	272	88	543	429	268	562	712	
Arrive On Green	0.03	0.13	0.13	0.24	0.24	0.24	0.05	0.40	0.40	0.03	0.38	0.00
Sat Flow, veh/h	1781	1568	256	176	1118	363	1781	1076	673	1781	1870	1585
Grp Volume(v), veh/h	185	0	363	447	0	0	85	0	130	28	166	0
Grp Sat Flow(s),veh/h/ln	1781	0	1824	1658	0	0	1781	0	1749	1781	1870	1585
Q Serve(g_s), s	7.4	0.0	18.5	19.1	0.0	0.0	2.9	0.0	4.8	0.9	6.0	0.0
Cycle Q Clear(g_c), s	7.4	0.0	18.5	24.3	0.0	0.0	2.9	0.0	4.8	0.9	6.0	0.0
Prop In Lane	1.00		0.14	0.14		0.22	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	344	0	728	444	0	0	543	0	698	562	712	
V/C Ratio(X)	0.54	0.00	0.50	1.01	0.00	0.00	0.16	0.00	0.19	0.05	0.23	
Avail Cap(c_a), veh/h	405	0	728	444	0	0	628	0	698	680	712	
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.00	0.99	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.6	0.0	34.1	38.8	0.0	0.0	17.5	0.0	19.5	17.9	21.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	2.4	44.4	0.0	0.0	0.1	0.0	0.6	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	9.5	16.5	0.0	0.0	1.2	0.0	2.1	0.4	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	0.0	36.5	83.2	0.0	0.0	17.6	0.0	20.1	17.9	21.8	0.0
LnGrp LOS	C	A	D	F	A	A	B	A	C	B	C	
Approach Vol, veh/h		548			447			215			194	A
Approach Delay, s/veh		32.9			83.2			19.1			21.2	
Approach LOS		C			F			B			C	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	45.6		46.0	10.2	43.8	15.6	30.4
Change Period (Y+Rc), s	* 5.7	* 5.7		6.1	* 5.7	* 5.7	6.1	6.1
Max Green Setting (Gmax), s	* 9.3	* 33		39.9	* 9.3	* 33	12.9	20.9
Max Q Clear Time (g_c+I1), s	2.9	6.8		20.5	4.9	8.0	9.4	26.3
Green Ext Time (p_c), s	0.0	1.0		2.9	0.1	1.3	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt												
Flt Protected												
Satd. Flow (prot)	0	1770	1770	0	1770	1770	0	3539	0	0	3539	0
Flt Permitted												
Satd. Flow (perm)	0	1770	1770	0	1770	1770	0	3539	0	0	3539	0
Adj. Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Control Type: Roundabout	
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

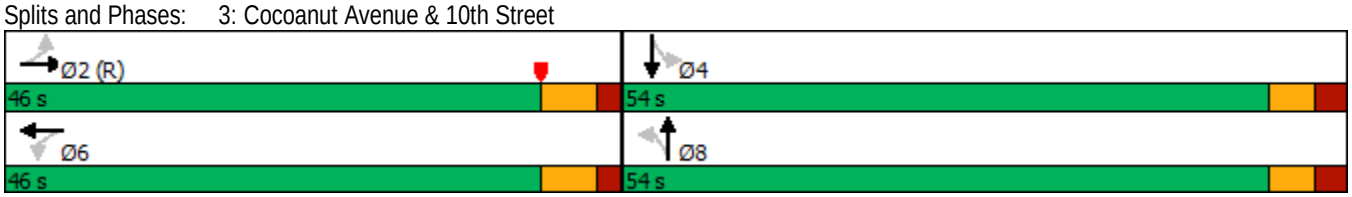
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	321	63	54	447	62	95	71	83	65	56	74
Future Volume (vph)	23	321	63	54	447	62	95	71	83	65	56	74
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.976			0.982			0.955			0.949	
Flt Protected	0.950			0.950				0.981			0.984	
Satd. Flow (prot)	1770	3454	0	1770	3476	0	0	1745	0	0	1739	0
Flt Permitted	0.439			0.508				0.737			0.739	
Satd. Flow (perm)	818	3454	0	946	3476	0	0	1311	0	0	1306	0
Satd. Flow (RTOR)		27			18			35			42	
Adj. Flow (vph)	25	349	68	59	486	67	103	77	90	71	61	80
Lane Group Flow (vph)	25	417	0	59	553	0	0	270	0	0	212	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	26.1	26.1		24.1	24.1		24.0	24.0		42.0	42.0	
Total Split (s)	46.0	46.0		46.0	46.0		54.0	54.0		54.0	54.0	
Total Split (%)	46.0%	46.0%		46.0%	46.0%		54.0%	54.0%		54.0%	54.0%	
Maximum Green (s)	39.9	39.9		39.9	39.9		48.0	48.0		48.0	48.0	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0								7.0	7.0	
Flash Dont Walk (s)	13.0	13.0								29.0	29.0	
Pedestrian Calls (#/hr)	0	0								0	0	
Act Effct Green (s)	64.0	64.0		64.0	64.0			23.9			23.9	
Actuated g/C Ratio	0.64	0.64		0.64	0.64			0.24			0.24	
v/c Ratio	0.05	0.19		0.10	0.25			0.80			0.62	
Control Delay	9.4	8.1		5.0	4.4			47.3			33.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	9.4	8.1		5.0	4.4			47.3			33.7	
LOS	A	A		A	A			D			C	
Approach Delay		8.2			4.5			47.3			33.7	
Approach LOS		A			A			D			C	
Queue Length 50th (ft)	5	47		7	31			143			97	
Queue Length 95th (ft)	20	92		21	67			208			151	
Internal Link Dist (ft)		265			585			747			600	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	120			150								
Base Capacity (vph)	523	2221		605	2232			647			648	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.05	0.19		0.10	0.25			0.42			0.33	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 73 (73%), Referenced to phase 2:EBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 17.1 Intersection LOS: B
Intersection Capacity Utilization 54.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Cocoanut Avenue & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	321	63	54	447	62	95	71	83	65	56	74
Future Volume (veh/h)	23	321	63	54	447	62	95	71	83	65	56	74
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	349	68	59	486	67	103	77	90	71	61	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	575	1937	373	659	2046	281	158	108	108	134	117	123
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	855	2971	573	969	3139	431	479	477	478	378	514	541
Grp Volume(v), veh/h	25	207	210	59	274	279	270	0	0	212	0	0
Grp Sat Flow(s),veh/h/ln	855	1777	1767	969	1777	1793	1434	0	0	1434	0	0
Q Serve(g_s), s	1.2	4.6	4.7	2.6	6.4	6.4	5.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.6	4.6	4.7	7.2	6.4	6.4	18.2	0.0	0.0	13.2	0.0	0.0
Prop In Lane	1.00		0.32	1.00		0.24	0.38		0.33	0.33		0.38
Lane Grp Cap(c), veh/h	575	1158	1152	659	1158	1169	375	0	0	374	0	0
V/C Ratio(X)	0.04	0.18	0.18	0.09	0.24	0.24	0.72	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	575	1158	1152	659	1158	1169	754	0	0	753	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	0.98	0.98	0.98	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.7	6.9	6.9	8.3	7.2	7.2	36.8	0.0	0.0	34.6	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.3	0.3	0.5	0.5	3.7	0.0	0.0	1.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.7	1.7	0.5	2.3	2.3	6.6	0.0	0.0	4.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	7.2	7.2	8.6	7.6	7.6	40.5	0.0	0.0	36.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		442			612			270			212	
Approach Delay, s/veh		7.3			7.7			40.5			36.5	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		71.3		28.7		71.3		28.7				
Change Period (Y+Rc), s		6.1		6.0		6.1		6.0				
Max Green Setting (Gmax), s		39.9		48.0		39.9		48.0				
Max Q Clear Time (g_c+I1), s		9.6		15.2		9.2		20.2				
Green Ext Time (p_c), s		3.9		2.0		5.6		2.5				

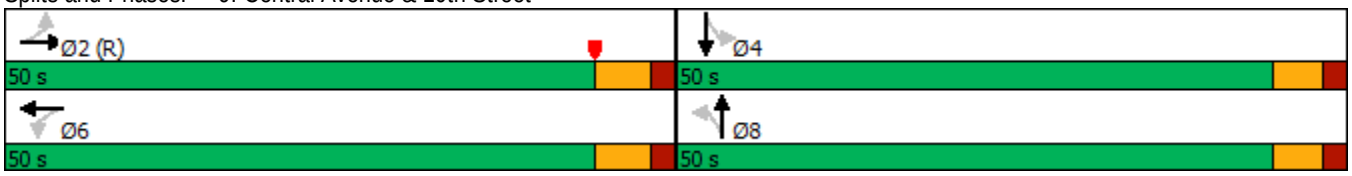
Intersection Summary												
HCM 6th Ctrl Delay			17.3									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	433	43	52	549	58	48	76	46	44	22	52
Future Volume (vph)	17	433	43	52	549	58	48	76	46	44	22	52
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.986			0.986			0.944			0.940	
Flt Protected	0.950			0.950			0.950				0.982	
Satd. Flow (prot)	1770	3490	0	1770	3490	0	1770	1758	0	0	1719	0
Flt Permitted	0.401			0.461			0.595				0.732	
Satd. Flow (perm)	747	3490	0	859	3490	0	1108	1758	0	0	1282	0
Satd. Flow (RTOR)		13			14			39			51	
Adj. Flow (vph)	18	471	47	57	597	63	52	83	50	48	24	57
Lane Group Flow (vph)	18	518	0	57	660	0	52	133	0	0	129	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		24.0	24.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	29.1	29.1		30.1	30.1		23.7	23.7		23.7	23.7	
Total Split (s)	50.0	50.0		50.0	50.0		50.0	50.0		50.0	50.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	43.9	43.9		43.9	43.9		44.3	44.3		44.3	44.3	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.7	5.7			5.7	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	16.0	16.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	76.1	76.1		76.1	76.1		12.1	12.1			12.1	
Actuated g/C Ratio	0.76	0.76		0.76	0.76		0.12	0.12			0.12	
v/c Ratio	0.03	0.19		0.09	0.25		0.39	0.54			0.65	
Control Delay	4.5	4.5		2.1	2.0		47.5	36.2			40.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	4.5	4.5		2.1	2.0		47.5	36.2			40.0	
LOS	A	A		A	A		D	D			D	
Approach Delay		4.5			2.0			39.4			40.0	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	3	50		3	43		31	57			47	
Queue Length 95th (ft)	m10	67		7	24		65	109			103	
Internal Link Dist (ft)		585			604			682			630	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	150			205			50					
Base Capacity (vph)	568	2658		653	2659		490	800			596	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.03	0.19		0.09	0.25		0.11	0.17			0.22	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 90 (90%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 10.4	Intersection LOS: B
Intersection Capacity Utilization 66.6%	ICU Level of Service C
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 9: Central Avenue & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	433	43	52	549	58	48	76	46	44	22	52
Future Volume (veh/h)	17	433	43	52	549	58	48	76	46	44	22	52
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	471	47	57	597	63	52	83	50	48	24	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	595	2398	238	721	2384	251	217	161	97	92	53	75
Arrive On Green	1.00	1.00	1.00	0.73	0.73	0.73	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	774	3264	325	883	3244	342	1317	1093	659	289	358	513
Grp Volume(v), veh/h	18	256	262	57	326	334	52	0	133	129	0	0
Grp Sat Flow(s),veh/h/ln	774	1777	1812	883	1777	1809	1317	0	1752	1160	0	0
Q Serve(g_s), s	0.2	0.0	0.0	1.8	6.0	6.0	0.0	0.0	7.0	4.6	0.0	0.0
Cycle Q Clear(g_c), s	6.2	0.0	0.0	1.8	6.0	6.0	5.3	0.0	7.0	11.6	0.0	0.0
Prop In Lane	1.00		0.18	1.00		0.19	1.00		0.38	0.37		0.44
Lane Grp Cap(c), veh/h	595	1306	1331	721	1306	1329	217	0	258	220	0	0
V/C Ratio(X)	0.03	0.20	0.20	0.08	0.25	0.25	0.24	0.00	0.52	0.59	0.00	0.00
Avail Cap(c_a), veh/h	595	1306	1331	721	1306	1329	606	0	776	659	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	0.99	0.99	0.99	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.3	0.0	0.0	3.8	4.3	4.3	38.6	0.0	39.3	41.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.3	0.2	0.5	0.4	0.8	0.0	2.3	3.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.3	1.9	1.9	1.2	0.0	3.2	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.3	0.3	0.3	4.0	4.8	4.8	39.4	0.0	41.6	44.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	A
Approach Vol, veh/h		536			717			185			129	
Approach Delay, s/veh		0.3			4.7			41.0			44.8	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		79.6		20.4		79.6		20.4				
Change Period (Y+Rc), s		6.1		* 5.7		6.1		* 5.7				
Max Green Setting (Gmax), s		43.9		* 44		43.9		* 44				
Max Q Clear Time (g_c+I1), s		8.2		13.6		8.0		9.0				
Green Ext Time (p_c), s		5.0		1.1		7.1		1.4				

Intersection Summary		
HCM 6th Ctrl Delay		10.8
HCM 6th LOS		B

Notes

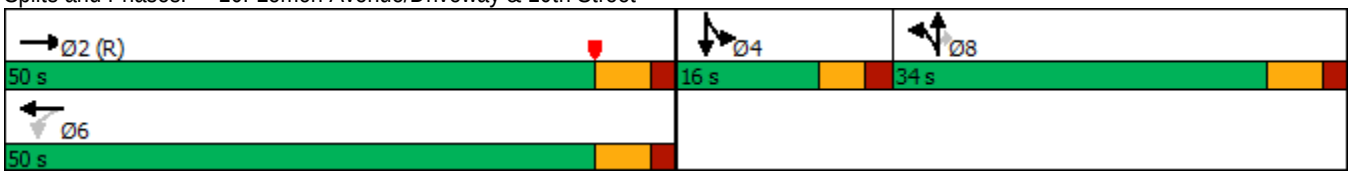
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	416	54	37	445	0	75	0	83	0	3	0
Future Volume (vph)	0	416	54	37	445	0	75	0	83	0	3	0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.983							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	3479	0	1770	3539	0	1681	1681	1583	0	1863	0
Flt Permitted				0.464			0.950	0.950				
Satd. Flow (perm)	0	3479	0	864	3539	0	1681	1681	1583	0	1863	0
Satd. Flow (RTOR)		18							93			
Adj. Flow (vph)	0	452	59	40	484	0	82	0	90	0	3	0
Lane Group Flow (vph)	0	511	0	40	484	0	41	41	90	0	3	0
Turn Type		NA		Perm	NA		Split	NA	Perm		NA	
Protected Phases		2			6		8	8		4	4	
Permitted Phases				6					8			
Detector Phase		2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)		7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)		35.1		28.1	28.1		39.1	39.1	39.1	12.4	12.4	
Total Split (s)		50.0		50.0	50.0		34.0	34.0	34.0	16.0	16.0	
Total Split (%)		50.0%		50.0%	50.0%		34.0%	34.0%	34.0%	16.0%	16.0%	
Maximum Green (s)		43.9		43.9	43.9		27.9	27.9	27.9	10.6	10.6	
Yellow Time (s)		4.1		4.1	4.1		4.1	4.1	4.1	3.4	3.4	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)		6.1		6.1	6.1		6.1	6.1	6.1		5.4	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Gap (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Recall Mode		C-Max		Max	Max		None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0	7.0			
Flash Dont Walk (s)		22.0		15.0	15.0		26.0	26.0	26.0			
Pedestrian Calls (#/hr)		0		0	0		0	0	0			
Act Effct Green (s)		80.1		80.1	80.1		9.0	9.0	9.0		7.1	
Actuated g/C Ratio		0.80		0.80	0.80		0.09	0.09	0.09		0.07	
v/c Ratio		0.18		0.06	0.17		0.27	0.27	0.40		0.02	
Control Delay		1.9		2.6	2.2		46.3	46.3	14.0		43.7	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay		1.9		2.6	2.2		46.3	46.3	14.0		43.7	
LOS		A		A	A		D	D	B		D	
Approach Delay		1.9			2.2			29.4			43.7	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)		13		1	7		26	26	0		2	
Queue Length 95th (ft)		49		m14	m81		60	60	44		11	
Internal Link Dist (ft)		604			575			678			183	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				90			270		270			
Base Capacity (vph)		2789		692	2834		468	468	508		197	
Starvation Cap Reductn		0		0	0		0	0	0		0	
Spillback Cap Reductn		0		0	0		0	0	0		0	
Storage Cap Reductn		0		0	0		0	0	0		0	
Reduced v/c Ratio		0.18		0.06	0.17		0.09	0.09	0.18		0.02	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 89 (89%), Referenced to phase 2:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 6.1	Intersection LOS: A
Intersection Capacity Utilization 43.0%	ICU Level of Service A
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 10: Lemon Avenue/Driveway & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	416	54	37	445	0	75	0	83	0	3	0
Future Volume (veh/h)	0	416	54	37	445	0	75	0	83	0	3	0
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	452	59	40	484	0	82	0	90	0	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2328	302	726	2616	0	293	0	130	0	10	0
Arrive On Green	0.00	1.00	1.00	1.00	1.00	0.00	0.08	0.00	0.08	0.00	0.01	0.00
Sat Flow, veh/h	0	3256	411	889	3647	0	3563	0	1585	0	1870	0
Grp Volume(v), veh/h	0	253	258	40	484	0	82	0	90	0	3	0
Grp Sat Flow(s),veh/h/ln	0	1777	1796	889	1777	0	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	5.5	0.0	0.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	5.5	0.0	0.2	0.0
Prop In Lane	0.00		0.23	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	1308	1322	726	2616	0	293	0	130	0	10	0
V/C Ratio(X)	0.00	0.19	0.20	0.06	0.19	0.00	0.28	0.00	0.69	0.00	0.29	0.00
Avail Cap(c_a), veh/h	0	1308	1322	726	2616	0	994	0	442	0	198	0
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.37	0.37	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	43.1	0.0	44.6	0.0	49.5	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.1	0.1	0.0	0.7	0.0	8.9	0.0	20.0	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	0.0	0.1	0.1	0.0	0.0	0.0	1.0	0.0	2.5	0.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.3	0.3	0.1	0.1	0.0	43.8	0.0	53.5	0.0	69.5	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	A	E	A
Approach Vol, veh/h		511			524			172			3	
Approach Delay, s/veh		0.3			0.1			48.9			69.5	
Approach LOS		A			A			D			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	79.7	6.0	79.7	14.3
Change Period (Y+Rc), s	6.1	5.4	6.1	6.1
Max Green Setting (Gmax), s	43.9	10.6	43.9	27.9
Max Q Clear Time (g_c+I1), s	2.0	2.2	2.0	7.5
Green Ext Time (p_c), s	4.9	0.0	5.4	0.8

Intersection Summary	
HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	335	261	42	48	218	75	136	192	122	33	113	40
Future Volume (vph)	335	261	42	48	218	75	136	192	122	33	113	40
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.970			0.942				0.850
Flt Protected	0.950				0.993		0.950			0.950		
Satd. Flow (prot)	1770	1824	0	0	1794	0	1770	1755	0	1770	1863	1583
Flt Permitted	0.189				0.885		0.591			0.456		
Satd. Flow (perm)	352	1824	0	0	1599	0	1101	1755	0	849	1863	1583
Satd. Flow (RTOR)		10			12			32				163
Adj. Flow (vph)	364	284	46	52	237	82	148	209	133	36	123	43
Lane Group Flow (vph)	364	330	0	0	371	0	148	342	0	36	123	43
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	7.0		7.0	7.0		5.0	7.0		5.0	7.0	7.0
Minimum Split (s)	11.1	24.1		13.1	13.1		10.7	30.7		10.7	30.7	30.7
Total Split (s)	27.0	50.0		23.0	23.0		15.0	35.0		15.0	35.0	35.0
Total Split (%)	27.0%	50.0%		23.0%	23.0%		15.0%	35.0%		15.0%	35.0%	35.0%
Maximum Green (s)	20.9	43.9		16.9	16.9		9.3	29.3		9.3	29.3	29.3
Yellow Time (s)	4.1	4.1		4.1	4.1		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.1	6.1			6.1		5.7	5.7		5.7	5.7	5.7
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	4.0		3.0	4.0	4.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Max		Max	Max		None	C-Max		None	C-Max	C-Max
Walk Time (s)		7.0						7.0			7.0	7.0
Flash Dont Walk (s)		11.0						18.0			18.0	18.0
Pedestrian Calls (#/hr)		0						0			0	0
Act Effct Green (s)	43.9	43.9			18.7		42.1	36.5		36.5	29.8	29.8
Actuated g/C Ratio	0.44	0.44			0.19		0.42	0.36		0.36	0.30	0.30
v/c Ratio	0.86	0.41			1.20		0.28	0.52		0.10	0.22	0.07
Control Delay	47.4	26.7			153.4		18.7	27.5		16.9	28.0	0.2
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	47.4	26.7			153.4		18.7	27.5		16.9	28.0	0.2
LOS	D	C			F		B	C		B	C	A
Approach Delay		37.6			153.4			24.8			20.1	
Approach LOS		D			F			C			C	
Queue Length 50th (ft)	203	175			~304		56	164		13	59	0
Queue Length 95th (ft)	#312	269			#486		96	265		31	106	0
Internal Link Dist (ft)		575			583			465			505	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)							100			60		150
Base Capacity (vph)	450	806			309		525	660		417	554	585
Starvation Cap Reductn	0	0			0		0	0		0	0	0
Spillback Cap Reductn	0	0			0		0	0		0	0	0
Storage Cap Reductn	0	0			0		0	0		0	0	0
Reduced v/c Ratio	0.81	0.41			1.20		0.28	0.52		0.09	0.22	0.07

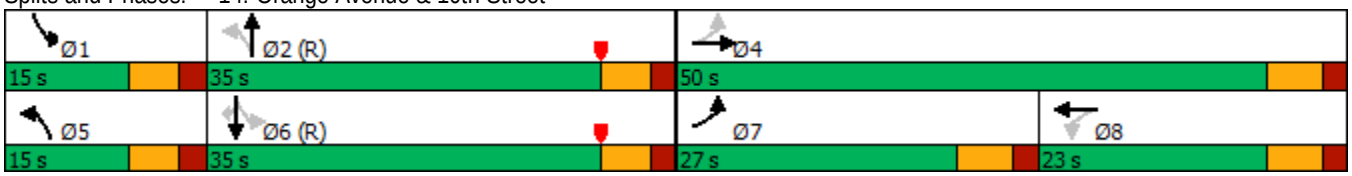
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 68 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.20
Intersection Signal Delay: 56.5 Intersection LOS: E
Intersection Capacity Utilization 78.6% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Orange Avenue & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	335	261	42	48	218	75	136	192	122	33	113	40
Future Volume (veh/h)	335	261	42	48	218	75	136	192	122	33	113	40
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	364	284	46	52	237	82	148	209	133	36	123	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	480	689	112	76	229	75	538	379	241	333	583	
Arrive On Green	0.06	0.14	0.14	0.20	0.20	0.20	0.07	0.35	0.35	0.03	0.31	0.00
Sat Flow, veh/h	1781	1570	254	173	1126	369	1781	1068	680	1781	1870	1585
Grp Volume(v), veh/h	364	0	330	371	0	0	148	0	342	36	123	0
Grp Sat Flow(s),veh/h/ln	1781	0	1825	1669	0	0	1781	0	1748	1781	1870	1585
Q Serve(g_s), s	15.1	0.0	16.4	15.4	0.0	0.0	5.5	0.0	15.7	1.4	4.8	0.0
Cycle Q Clear(g_c), s	15.1	0.0	16.4	20.3	0.0	0.0	5.5	0.0	15.7	1.4	4.8	0.0
Prop In Lane	1.00		0.14	0.14		0.22	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	480	0	801	380	0	0	538	0	619	333	583	
V/C Ratio(X)	0.76	0.00	0.41	0.98	0.00	0.00	0.27	0.00	0.55	0.11	0.21	
Avail Cap(c_a), veh/h	541	0	801	380	0	0	571	0	619	443	583	
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.00	0.99	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.9	0.0	31.0	40.6	0.0	0.0	20.3	0.0	25.9	22.7	25.4	0.0
Incr Delay (d2), s/veh	5.4	0.0	1.5	40.8	0.0	0.0	0.3	0.0	3.5	0.1	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.0	8.3	13.5	0.0	0.0	2.3	0.0	7.0	0.6	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	0.0	32.6	81.4	0.0	0.0	20.6	0.0	29.4	22.8	26.2	0.0
LnGrp LOS	C	A	C	F	A	A	C	A	C	C	C	
Approach Vol, veh/h		694			371			490			159	A
Approach Delay, s/veh		31.9			81.4			26.8			25.4	
Approach LOS		C			F			C			C	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	41.1		50.0	13.1	36.9	23.6	26.4
Change Period (Y+Rc), s	* 5.7	* 5.7		6.1	* 5.7	* 5.7	6.1	6.1
Max Green Setting (Gmax), s	* 9.3	* 29		43.9	* 9.3	* 29	20.9	16.9
Max Q Clear Time (g_c+I1), s	3.4	17.7		18.4	7.5	6.8	17.1	22.3
Green Ext Time (p_c), s	0.0	2.2		2.8	0.1	0.8	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	44	41	32	54	44	46	1278	92	57	739	51
Future Volume (vph)	33	44	41	32	54	44	46	1278	92	57	739	51
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850		0.933			0.990			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	2111	1583	1770	1738	0	1770	3504	0	1770	3504	0
Flt Permitted	0.504			0.714			0.300			0.173		
Satd. Flow (perm)	939	2111	1583	1330	1738	0	559	3504	0	322	3504	0
Satd. Flow (RTOR)			64		20			14			9	
Adj. Flow (vph)	36	48	45	35	59	48	50	1389	100	62	803	55
Lane Group Flow (vph)	36	48	45	35	107	0	50	1489	0	62	858	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8		8	4			6			2		
Detector Phase	8	8	8	4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		5.0	12.0		12.0	12.0	
Minimum Split (s)	20.0	20.0	20.0	21.7	21.7		11.5	22.5		22.5	22.5	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		17.0	140.0		123.0	123.0	
Total Split (%)	17.6%	17.6%	17.6%	17.6%	17.6%		10.0%	82.4%		72.4%	72.4%	
Maximum Green (s)	26.0	26.0	26.0	24.3	24.3		10.5	133.5		116.5	116.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.5	0.5	0.5	2.2	2.2		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		6.5	6.5		6.5	6.5	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0			5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0		0	0	
Act Effct Green (s)	15.6	15.6	15.6	13.9	13.9		143.9	143.9		133.5	133.5	
Actuated g/C Ratio	0.09	0.09	0.09	0.08	0.08		0.85	0.85		0.79	0.79	
v/c Ratio	0.42	0.25	0.22	0.32	0.67		0.10	0.50		0.25	0.31	
Control Delay	86.0	73.1	8.6	79.6	80.4		2.9	4.4		9.1	6.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	86.0	73.1	8.6	79.6	80.4		2.9	4.4		9.1	6.1	
LOS	F	E	A	E	F		A	A		A	A	
Approach Delay		54.2			80.2			4.3			6.3	
Approach LOS		D			F			A			A	
Queue Length 50th (ft)	39	51	0	38	96		7	188		18	134	
Queue Length 95th (ft)	78	93	22	76	162		18	279		46	193	
Internal Link Dist (ft)		611			584			456			443	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	65		65	150			50			250		
Base Capacity (vph)	143	322	296	190	265		547	2967		252	2753	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.25	0.15	0.15	0.18	0.40		0.09	0.50		0.25	0.31	

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 93 (55%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 11.3 — Intersection LOS: B
Intersection Capacity Utilization 66.0% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: US 41 & Boulevard of the Arts

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	44	41	32	54	44	46	1278	92	57	739	51
Future Volume (veh/h)	33	44	41	32	54	44	46	1278	92	57	739	51
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	48	45	35	59	48	50	1389	100	62	803	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	195	159	143	96	78	533	2784	200	292	2575	176
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.03	0.83	0.83	0.76	0.76	0.76
Sat Flow, veh/h	1287	1945	1585	1303	954	776	1781	3363	241	354	3375	231
Grp Volume(v), veh/h	36	48	45	35	0	107	50	732	757	62	423	435
Grp Sat Flow(s),veh/h/ln	1287	1945	1585	1303	0	1731	1781	1777	1827	354	1777	1829
Q Serve(g_s), s	4.7	3.9	4.5	4.3	0.0	10.1	1.0	20.5	20.7	10.6	12.6	12.6
Cycle Q Clear(g_c), s	14.8	3.9	4.5	8.2	0.0	10.1	1.0	20.5	20.7	20.3	12.6	12.6
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.13	1.00		0.13
Lane Grp Cap(c), veh/h	95	195	159	143	0	174	533	1471	1513	292	1356	1395
V/C Ratio(X)	0.38	0.25	0.28	0.24	0.00	0.62	0.09	0.50	0.50	0.21	0.31	0.31
Avail Cap(c_a), veh/h	163	297	242	199	0	247	596	1471	1513	292	1356	1395
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	80.4	70.5	70.8	74.3	0.0	73.3	4.1	4.3	4.3	8.9	6.3	6.3
Incr Delay (d2), s/veh	2.5	0.6	1.0	0.9	0.0	3.5	0.1	1.2	1.2	1.7	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	1.6	2.0	1.9	1.5	0.0	4.7	0.3	7.0	7.3	1.0	4.8	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.9	71.2	71.8	75.2	0.0	76.9	4.2	5.5	5.5	10.6	6.9	6.8
LnGrp LOS	F	E	E	E	A	E	A	A	A	B	A	A
Approach Vol, veh/h		129			142			1539			920	
Approach Delay, s/veh		74.7			76.5			5.4			7.1	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.0	136.2		22.8		147.2		22.8
Change Period (Y+Rc), s	6.5	6.5		* 5.7		6.5		* 5.7
Max Green Setting (Gmax), s	10.5	116.5		* 24		133.5		* 26
Max Q Clear Time (g_c+I1), s	3.0	22.3		12.1		22.7		16.8
Green Ext Time (p_c), s	0.0	19.5		0.5		47.9		0.3

Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	178	109	4	98	31	110	210	29	29	134	23
Future Volume (vph)	53	178	109	4	98	31	110	210	29	29	134	23
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.943			0.964			0.982			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1757	0	1770	1796	0	1770	1829	0	1770	1822	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1757	0	1770	1796	0	1770	1829	0	1770	1822	0
Adj. Flow (vph)	58	193	118	4	107	34	120	228	32	32	146	25
Lane Group Flow (vph)	58	311	0	4	141	0	120	260	0	32	171	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 48.8%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	53	178	109	4	98	31	110	210	29	29	134	23
Future Vol, veh/h	53	178	109	4	98	31	110	210	29	29	134	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	193	118	4	107	34	120	228	32	32	146	25
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	15.5	12	13.8	12.3
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	88%	0%	62%	0%	76%	0%	85%
Vol Right, %	0%	12%	0%	38%	0%	24%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	239	53	287	4	129	29	157
LT Vol	110	0	53	0	4	0	29	0
Through Vol	0	210	0	178	0	98	0	134
RT Vol	0	29	0	109	0	31	0	23
Lane Flow Rate	120	260	58	312	4	140	32	171
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.233	0.463	0.113	0.545	0.009	0.265	0.064	0.318
Departure Headway (Hd)	7.01	6.416	7.069	6.29	7.583	6.799	7.313	6.699
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	509	559	505	571	475	524	486	532
Service Time	4.794	4.199	4.849	4.07	5.283	4.599	5.11	4.495
HCM Lane V/C Ratio	0.236	0.465	0.115	0.546	0.008	0.267	0.066	0.321
HCM Control Delay	11.9	14.7	10.8	16.4	10.4	12.1	10.6	12.6
HCM Lane LOS	B	B	B	C	B	B	B	B
HCM 95th-tile Q	0.9	2.4	0.4	3.3	0	1.1	0.2	1.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	149	46	12	94	16	60	147	14	18	119	13
Future Volume (vph)	14	149	46	12	94	16	60	147	14	18	119	13
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.983			0.992			0.988	
Flt Protected		0.997			0.995			0.987			0.994	
Satd. Flow (prot)	0	1801	0	0	1822	0	0	1824	0	0	1829	0
Flt Permitted		0.997			0.995			0.987			0.994	
Satd. Flow (perm)	0	1801	0	0	1822	0	0	1824	0	0	1829	0
Adj. Flow (vph)	15	162	50	13	102	17	65	160	15	20	129	14
Lane Group Flow (vph)	0	227	0	0	132	0	0	240	0	0	163	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 43.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	149	46	12	94	16	60	147	14	18	119	13
Future Vol, veh/h	14	149	46	12	94	16	60	147	14	18	119	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	162	50	13	102	17	65	160	15	20	129	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.6	9.6	10.9	9.9
HCM LOS	B	A	B	A

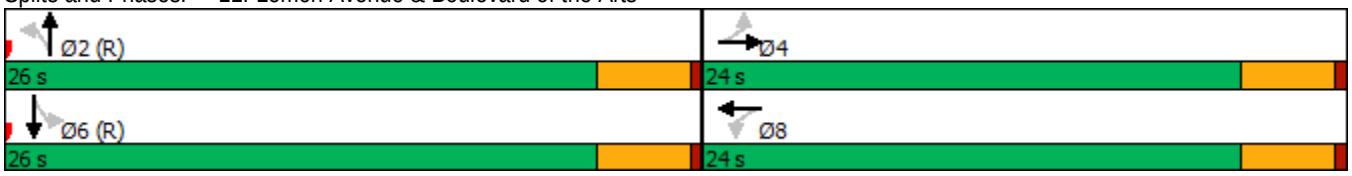
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	7%	10%	12%
Vol Thru, %	67%	71%	77%	79%
Vol Right, %	6%	22%	13%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	221	209	122	150
LT Vol	60	14	12	18
Through Vol	147	149	94	119
RT Vol	14	46	16	13
Lane Flow Rate	240	227	133	163
Geometry Grp	1	1	1	1
Degree of Util (X)	0.345	0.323	0.195	0.237
Departure Headway (Hd)	5.174	5.112	5.303	5.234
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	697	707	676	686
Service Time	3.188	3.126	3.335	3.264
HCM Lane V/C Ratio	0.344	0.321	0.197	0.238
HCM Control Delay	10.9	10.6	9.6	9.9
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1.5	1.4	0.7	0.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	89	36	7	39	12	21	152	15	6	44	2
Future Volume (vph)	9	89	36	7	39	12	21	152	15	6	44	2
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.957			0.965			0.987			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1783	0	1770	1798	0	1770	1839	0	1770	1852	0
Flt Permitted	0.721			0.670			0.724			0.643		
Satd. Flow (perm)	1343	1783	0	1248	1798	0	1349	1839	0	1198	1852	0
Satd. Flow (RTOR)		39			13			12			2	
Adj. Flow (vph)	10	97	39	8	42	13	23	165	16	7	48	2
Lane Group Flow (vph)	10	136	0	8	55	0	23	181	0	7	50	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	24.0	24.0		24.0	24.0		26.0	26.0		26.0	26.0	
Total Split (%)	48.0%	48.0%		48.0%	48.0%		52.0%	52.0%		52.0%	52.0%	
Maximum Green (s)	20.0	20.0		20.0	20.0		22.0	22.0		22.0	22.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	8.3	8.3		8.3	8.3		36.4	36.4		36.4	36.4	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.73	0.73		0.73	0.73	
v/c Ratio	0.04	0.41		0.04	0.18		0.02	0.13		0.01	0.04	
Control Delay	16.3	17.2		13.1	11.8		3.6	3.5		3.7	3.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.3	17.2		13.1	11.8		3.6	3.5		3.7	3.4	
LOS	B	B		B	B		A	A		A	A	
Approach Delay		17.1			12.0			3.5			3.5	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	3	26		2	11		2	13		1	3	
Queue Length 95th (ft)	11	59		m5	m27		8	37		4	14	
Internal Link Dist (ft)		583			585			376			456	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	75			105			95			170		
Base Capacity (vph)	537	736		499	727		981	1341		871	1348	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.02	0.18		0.02	0.08		0.02	0.13		0.01	0.04	

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 22.7%	ICU Level of Service A
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 11: Lemon Avenue & Boulevard of the Arts



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	89	36	7	39	12	21	152	15	6	44	2
Future Volume (veh/h)	9	89	36	7	39	12	21	152	15	6	44	2
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	97	39	8	42	13	23	165	16	7	48	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	150	60	201	162	50	1111	1211	117	976	1287	54
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.72	0.72	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1349	1269	510	1253	1370	424	1355	1678	163	1203	1783	74
Grp Volume(v), veh/h	10	0	136	8	0	55	23	0	181	7	0	50
Grp Sat Flow(s),veh/h/ln	1349	0	1779	1253	0	1794	1355	0	1841	1203	0	1857
Q Serve(g_s), s	0.3	0.0	3.7	0.3	0.0	1.4	0.2	0.0	1.5	0.1	0.0	0.4
Cycle Q Clear(g_c), s	1.7	0.0	3.7	4.0	0.0	1.4	0.6	0.0	1.5	1.6	0.0	0.4
Prop In Lane	1.00		0.29	1.00		0.24	1.00		0.09	1.00		0.04
Lane Grp Cap(c), veh/h	266	0	210	201	0	212	1111	0	1329	976	0	1340
V/C Ratio(X)	0.04	0.00	0.65	0.04	0.00	0.26	0.02	0.00	0.14	0.01	0.00	0.04
Avail Cap(c_a), veh/h	646	0	711	554	0	718	1111	0	1329	976	0	1340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.98	0.00	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	21.0	22.9	0.0	20.0	2.1	0.0	2.1	2.4	0.0	2.0
Incr Delay (d2), s/veh	0.1	0.0	3.3	0.1	0.0	0.6	0.0	0.0	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.6	0.1	0.0	0.6	0.0	0.0	0.3	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	0.0	24.4	23.0	0.0	20.7	2.1	0.0	2.4	2.4	0.0	2.0
LnGrp LOS	C	A	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		146			63			204			57	
Approach Delay, s/veh		24.1			21.0			2.3			2.1	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.1		9.9		40.1		9.9				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		22.0		20.0		22.0		20.0				
Max Q Clear Time (g_c+I1), s		3.5		5.7		3.6		6.0				
Green Ext Time (p_c), s		1.0		0.6		0.2		0.2				

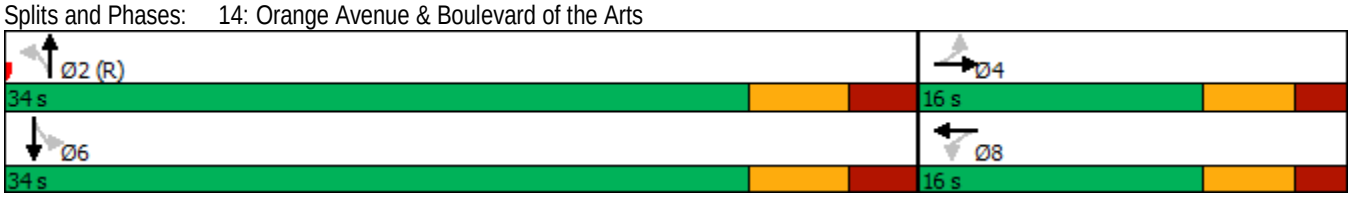
Intersection Summary												
HCM 6th Ctrl Delay			11.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	23	53	29	11	25	25	371	64	44	245	17
Future Volume (vph)	47	23	53	29	11	25	25	371	64	44	245	17
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.942			0.949			0.981			0.993	
Flt Protected		0.981			0.978			0.997			0.993	
Satd. Flow (prot)	0	1721	0	0	1729	0	0	1822	0	0	1837	0
Flt Permitted		0.845			0.858			0.972			0.891	
Satd. Flow (perm)	0	1483	0	0	1517	0	0	1776	0	0	1648	0
Satd. Flow (RTOR)		58			27			26			9	
Adj. Flow (vph)	51	25	58	32	12	27	27	403	70	48	266	18
Lane Group Flow (vph)	0	134	0	0	71	0	0	500	0	0	332	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	20.4	20.4		24.4	24.4		25.3	25.3		25.3	25.3	
Total Split (s)	16.0	16.0		16.0	16.0		34.0	34.0		34.0	34.0	
Total Split (%)	32.0%	32.0%		32.0%	32.0%		68.0%	68.0%		68.0%	68.0%	
Maximum Green (s)	10.6	10.6		10.6	10.6		27.7	27.7		27.7	27.7	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.4			5.4			6.3			6.3	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		C-Max	C-Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	8.0	8.0		12.0	12.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		8.5			8.5			33.6			33.6	
Actuated g/C Ratio		0.17			0.17			0.67			0.67	
v/c Ratio		0.45			0.25			0.42			0.30	
Control Delay		25.7			14.5			6.7			6.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		25.7			14.5			6.7			6.0	
LOS		C			B			A			A	
Approach Delay		25.7			14.5			6.7			6.0	
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		26			11			62			38	
Queue Length 95th (ft)		70			37			134			86	
Internal Link Dist (ft)		585			361			367			327	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		360			342			1201			1110	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.37			0.21			0.42			0.30	

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 46 (92%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 9.5	Intersection LOS: A
Intersection Capacity Utilization 47.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Orange Avenue & Boulevard of the Arts



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	23	53	29	11	25	25	371	64	44	245	17
Future Volume (veh/h)	47	23	53	29	11	25	25	371	64	44	245	17
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	25	58	32	12	27	27	403	70	48	266	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	57	91	173	68	83	102	953	159	180	919	58
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	479	429	692	518	513	632	41	1503	251	154	1450	92
Grp Volume(v), veh/h	134	0	0	71	0	0	500	0	0	332	0	0
Grp Sat Flow(s),veh/h/ln	1600	0	0	1663	0	0	1796	0	0	1695	0	0
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.0	1.8	0.0	0.0	6.9	0.0	0.0	4.0	0.0	0.0
Prop In Lane	0.38		0.43	0.45		0.38	0.05		0.14	0.14		0.05
Lane Grp Cap(c), veh/h	310	0	0	324	0	0	1215	0	0	1158	0	0
V/C Ratio(X)	0.43	0.00	0.00	0.22	0.00	0.00	0.41	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	433	0	0	443	0	0	1215	0	0	1158	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)	0.93	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.5	0.0	0.0	19.6	0.0	0.0	4.6	0.0	0.0	4.1	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.3	0.0	0.0	1.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.7	0.0	0.0	1.8	0.0	0.0	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	0.0	0.0	20.0	0.0	0.0	5.6	0.0	0.0	4.7	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		134			71			500			332	
Approach Delay, s/veh		21.3			20.0			5.6			4.7	
Approach LOS		C			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		38.0		12.0		38.0		12.0				
Change Period (Y+Rc), s		* 6.3		5.4		* 6.3		5.4				
Max Green Setting (Gmax), s		* 28		10.6		* 28		10.6				
Max Q Clear Time (g_c+I1), s		8.9		5.8		6.0		3.8				
Green Ext Time (p_c), s		3.2		0.3		2.1		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	8.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Appendix F:

FDOT Traffic Online Historical AADT

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 5030 - SR 45/US 41, NORTH OF SR 789/GULFSTREAM AVE

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	30500 C	N 15000	S 15500	9.00	52.60	3.20
2020	25500 C	N 12500	S 13000	9.00	52.20	3.70
2019	36000 C	N 18000	S 18000	9.00	52.20	3.10
2018	35000 C	N 17500	S 17500	9.00	52.50	3.00
2017	39500 C	N 19000	S 20500	9.00	52.60	3.00
2016	39500 C	N 20000	S 19500	9.00	52.60	3.00
2015	38500 C	N 19000	S 19500	9.00	52.80	3.00
2014	35500 C	N 17500	S 18000	9.00	52.50	3.10
2013	37500 C	N 18500	S 19000	9.00	52.40	3.00
2012	36500 C	N 17500	S 19000	9.00	52.70	3.10
2011	40000 C	N 19000	S 21000	9.00	53.10	2.80
2010	40500 C	N 19000	S 21500	10.54	52.03	2.70
2009	41500 C	N 20000	S 21500	10.59	53.04	2.70
2008	37000 C	N 18500	S 18500	10.48	52.68	3.20
2007	37500 C	N 18000	S 19500	10.00	54.96	2.50
2006	37000 C	N 18000	S 19000	9.78	53.48	2.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 4409 - PARK PLACE / COCONUT AVENUE, NORTH OF GULF STREAM BLVD.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	3300 T	N 1600	S 1700	9.00	52.60	3.20
2020	3300 S	N 1600	S 1700	9.00	52.20	2.50
2019	3300 F	N 1600	S 1700	9.00	52.30	2.50
2018	3300 C	N 1600	S 1700	9.00	52.40	2.50
2017	3000 T	N 1600	S 1400	9.00	52.30	2.80
2016	2900 S	N 1500	S 1400	9.00	52.60	3.80
2015	2700 F	N 1400	S 1300	9.00	52.80	3.80
2014	2700 C	N 1400	S 1300	9.00	52.40	3.80
2013	2600 S	0	0	9.00	52.60	2.70
2012	2600 F	0	0	9.00	52.70	2.60
2011	2600 C	N 0	S 0	9.00	52.90	2.50

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 4411 - MAIN STREET / CENTRAL AVENUE, NORTH OF PINEAPPLE AVENUE

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	3200 T	N 1700	S 1500	9.00	52.60	3.20
2020	3200 S	N 1700	S 1500	9.00	52.20	2.30
2019	3200 F	N 1700	S 1500	9.00	52.30	2.30
2018	3200 C	N 1700	S 1500	9.00	52.40	2.30
2017	2100 T	N 1100	S 1000	9.00	52.30	2.80
2016	2100 S	N 1100	S 1000	9.00	52.60	3.30
2015	2100 F	N 1100	S 1000	9.00	52.80	3.30
2014	2100 C	N 1100	S 1000	9.00	52.40	3.30
2013	2500 S	0	0	9.00	52.60	2.70
2012	2500 F	0	0	9.00	52.70	2.60
2011	2500 C	N 0	S 0	9.00	52.90	2.50

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 17 - SARASOTA

SITE: 4422 - ORANGE AVENUE, NORTH OF S.R. 45 / U.S. 41

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	6700 T	N 3200	S 3500	9.00	52.60	3.20
2020	6600 S	N 3200	S 3400	9.00	52.20	3.70
2019	6800 F	N 3300	S 3500	9.00	52.30	3.70
2018	6800 C	N 3300	S 3500	9.00	52.40	3.70
2017	6500 T	N 3200	S 3300	9.00	52.30	2.80
2016	6300 S	N 3100	S 3200	9.00	52.60	4.80
2015	6100 F	N 3000	S 3100	9.00	52.80	4.80
2014	5900 C	N 2900	S 3000	9.00	52.40	4.80
2013	9100 S	N 4500	S 4600	9.00	52.60	2.70
2012	9100 F	N 4500	S 4600	9.00	52.70	2.60
2011	9100 C	N 4500	S 4600	9.00	52.90	2.50

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Appendix G:

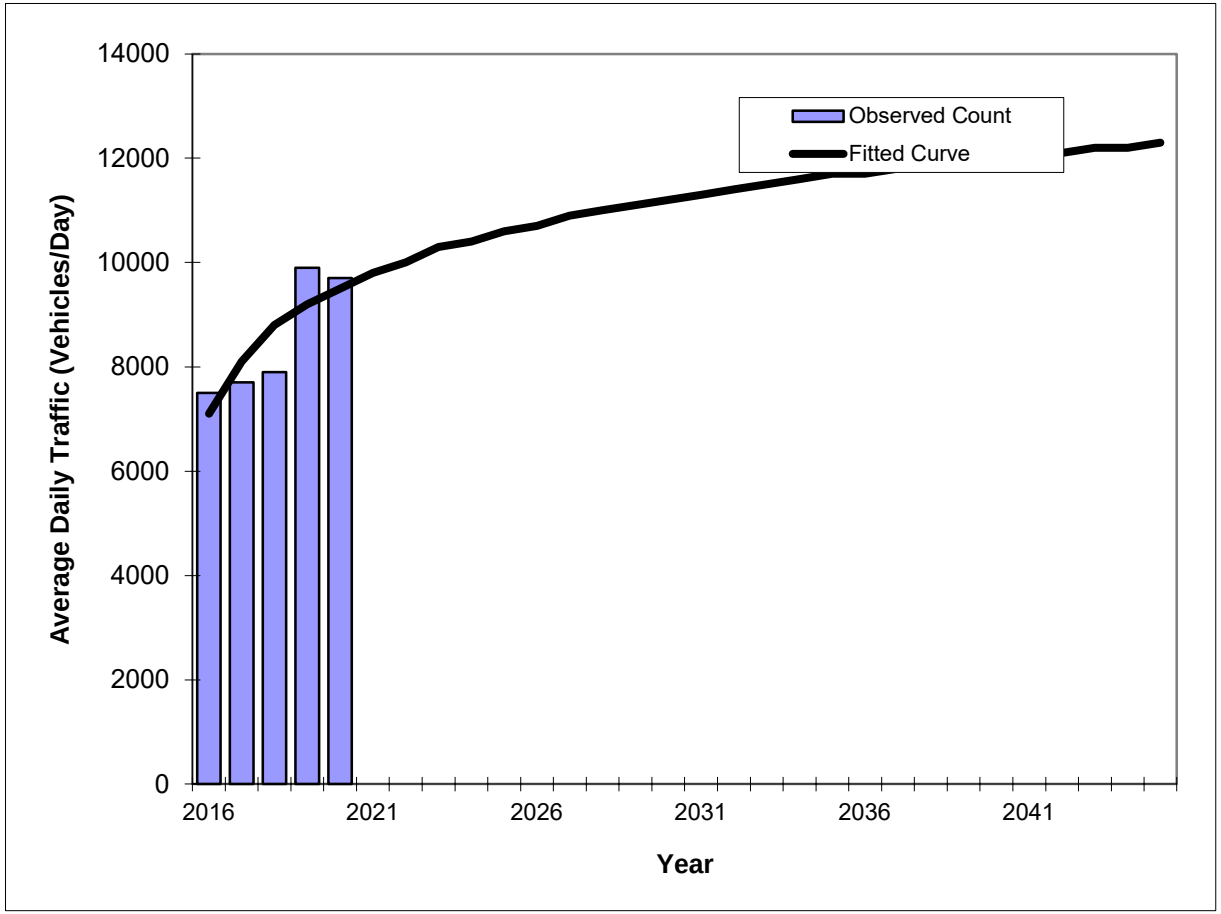
FDOT Trend Spreadsheets

Traffic Trends - V03.a

10TH ST --

FIN#	1234
Location	1

County:	Sarasota (17)
Station #:	1347
Highway:	10TH ST



Year	Traffic (ADT/AADT) Count*	Trend**
2016	7500	7100
2017	7700	8100
2018	7900	8800
2019	9900	9200
2020	9700	9500
2025 Opening Year Trend		
2025	N/A	10600
2035 Mid-Year Trend		
2035	N/A	11700
2045 Design Year Trend		
2045	N/A	12300
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

Trend R-squared:	69.87%
Compounded Annual Historic Growth Rate:	7.55%
Compounded Growth Rate (2020 to Design Year):	1.04%
Printed:	10-Jun-22

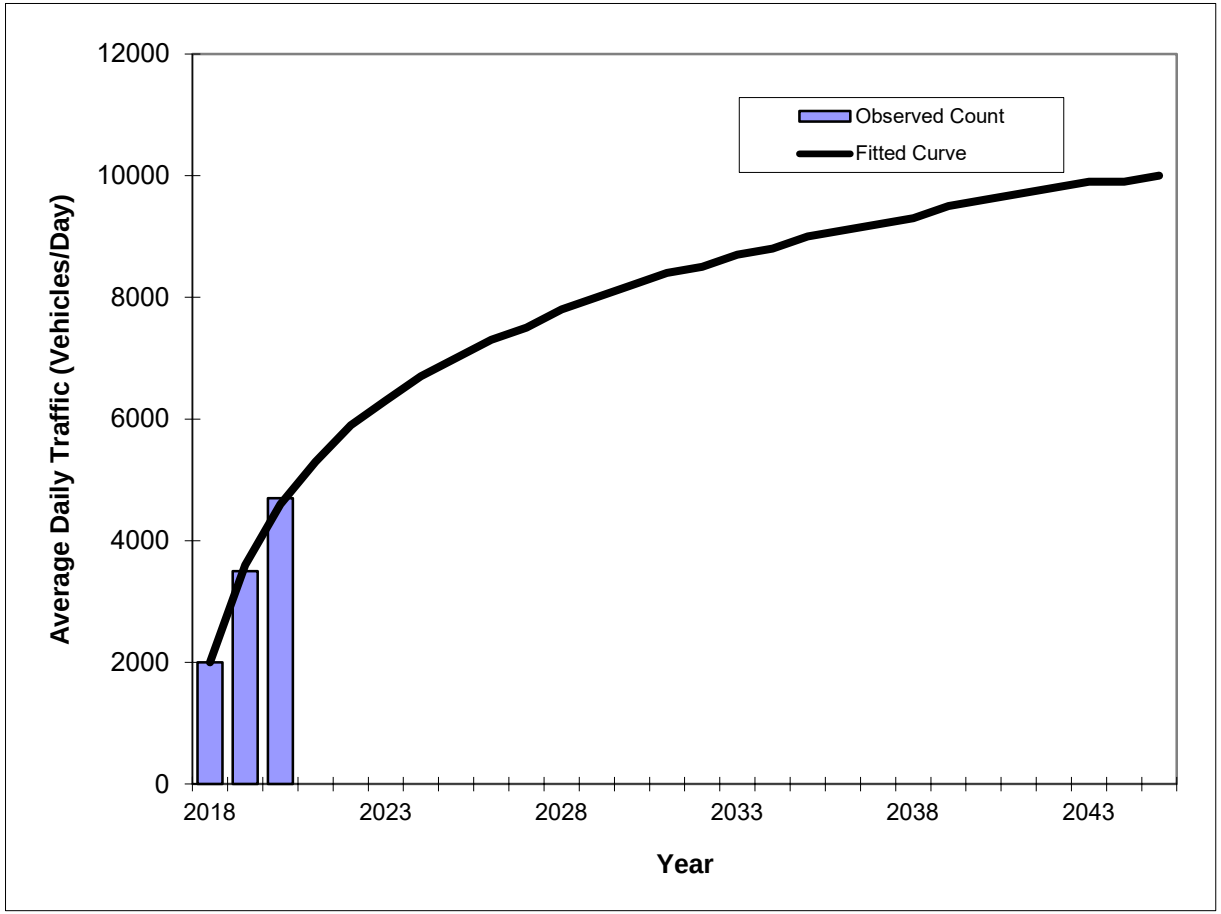
Decaying Exponential Growth Option

Traffic Trends - V03.a

BOULEVARD OF THE ARTS --

FIN#	1234
Location	1

County:	Sarasota (17)
Station #:	1347
Highway:	BOULEVARD OF THE ARTS



Year	Traffic (ADT/AADT) Count*	Trend**
2018	2000	2000
2019	3500	3600
2020	4700	4600
2025 Opening Year Trend		
2025	N/A	7000
2035 Mid-Year Trend		
2035	N/A	9000
2045 Design Year Trend		
2045	N/A	10000
TRANPLAN Forecasts/Trends		

Trend R-squared:	99.26%
Compounded Annual Historic Growth Rate:	51.66%
Compounded Growth Rate (2020 to Design Year):	3.15%
Printed:	10-Jun-22

Decaying Exponential Growth Option

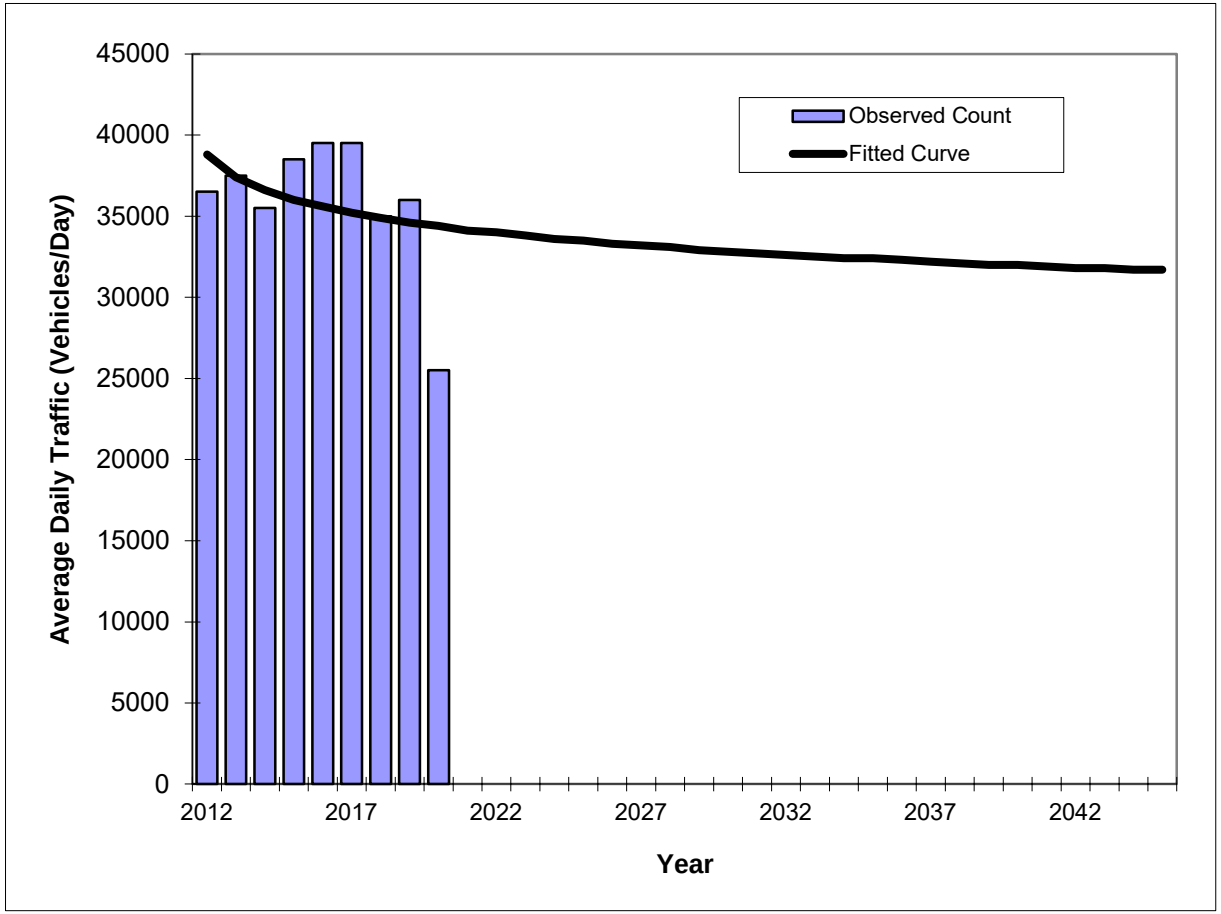
*Axle-Adjusted

Traffic Trends - V03.a

US-41/TAMIAMI TRAIL --

FIN#	1234
Location	1

County:	Sarasota (17)
Station #:	5030
Highway:	US-41/TAMIAMI TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2012	36500	38800
2013	37500	37400
2014	35500	36600
2015	38500	36000
2016	39500	35600
2017	39500	35200
2018	35000	34900
2019	36000	34600
2020	25500	34400
2025 Opening Year Trend		
2025	N/A	33500
2035 Mid-Year Trend		
2035	N/A	32400
2045 Design Year Trend		
2045	N/A	31700
TRANPLAN Forecasts/Trends		

Trend R-squared:	11.91%
Compounded Annual Historic Growth Rate:	-1.49%
Compounded Growth Rate (2020 to Design Year):	-0.33%
Printed:	10-Jun-22

Decaying Exponential Growth Option

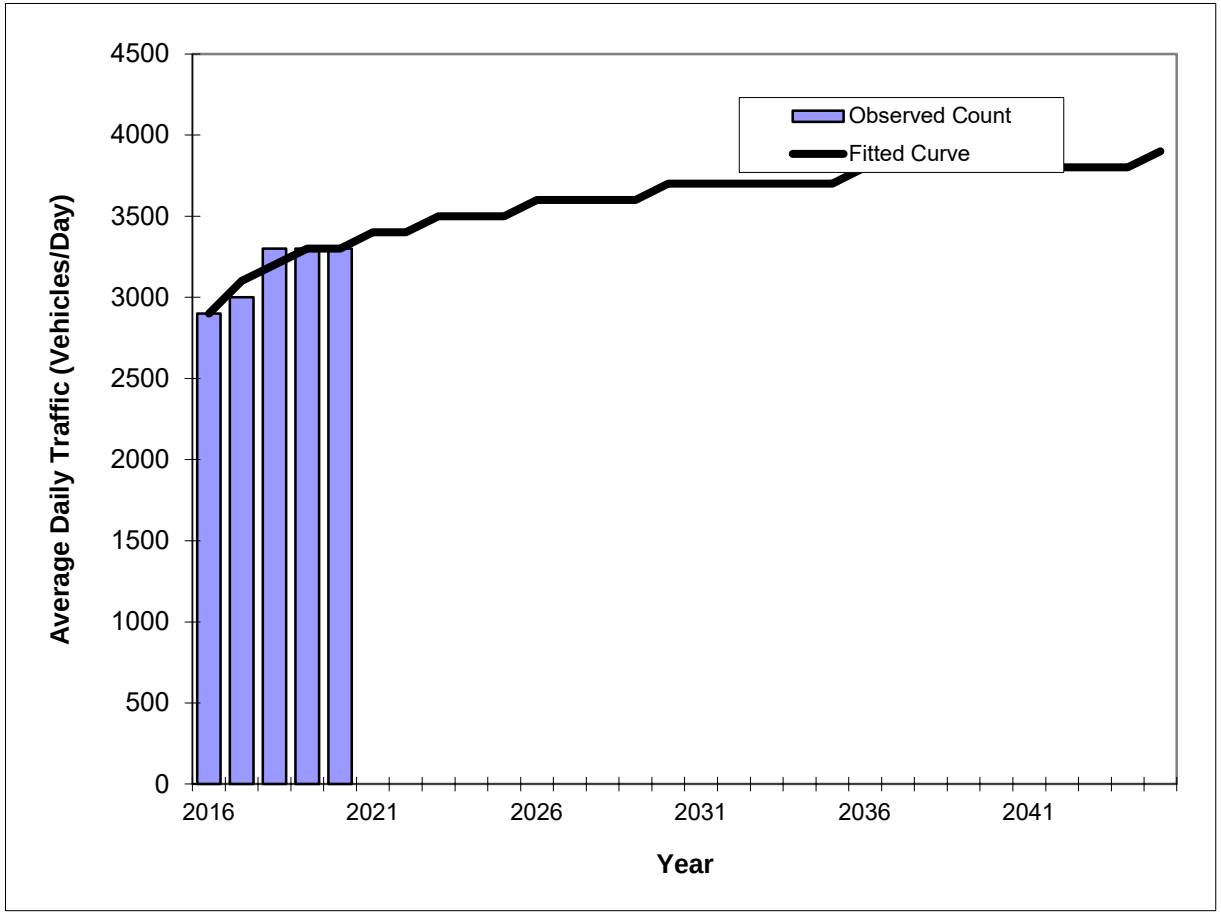
*Axle-Adjusted

Traffic Trends - V03.a

COCONUT AVE --

FIN#	1234
Location	1

County:	Sarasota (17)
Station #:	4409
Highway:	COCONUT AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2016	2900	2900
2017	3000	3100
2018	3300	3200
2019	3300	3300
2020	3300	3300
2025 Opening Year Trend		
2025	N/A	3500
2035 Mid-Year Trend		
2035	N/A	3700
2045 Design Year Trend		
2045	N/A	3900
TRANPLAN Forecasts/Trends		

Trend R-squared:	87.04%
Compounded Annual Historic Growth Rate:	3.28%
Compounded Growth Rate (2020 to Design Year):	0.67%
Printed:	10-Jun-22

Decaying Exponential Growth Option

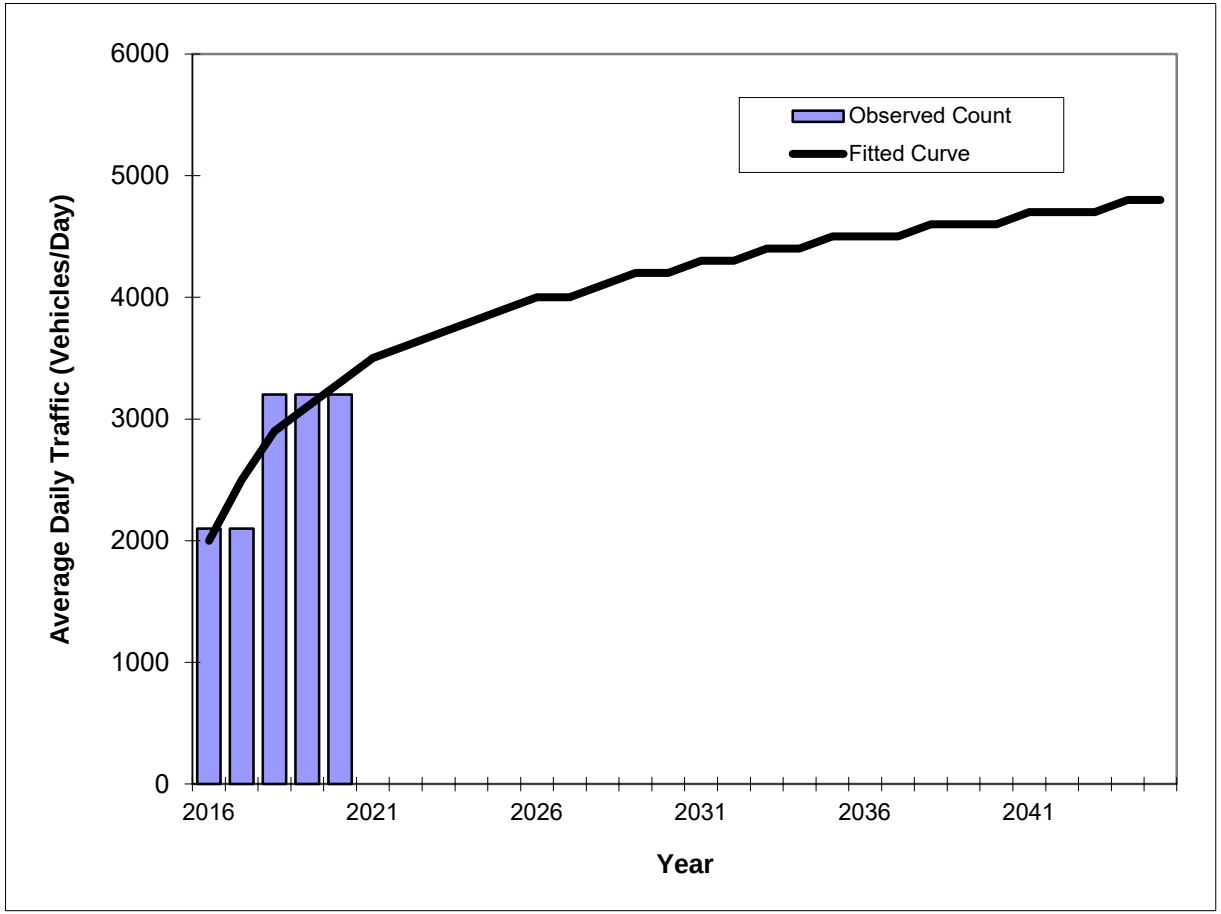
*Axle-Adjusted

Traffic Trends - V03.a

CENTRAL AVE --

FIN#	1234
Location	1

County:	Sarasota (17)
Station #:	4411
Highway:	CENTRAL AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2016	2100	2000
2017	2100	2500
2018	3200	2900
2019	3200	3100
2020	3200	3300
2025 Opening Year Trend		
2025	N/A	3900
2035 Mid-Year Trend		
2035	N/A	4500
2045 Design Year Trend		
2045	N/A	4800
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

Trend R-squared:	77.01%
Compounded Annual Historic Growth Rate:	13.34%
Compounded Growth Rate (2020 to Design Year):	1.51%
Printed:	10-Jun-22

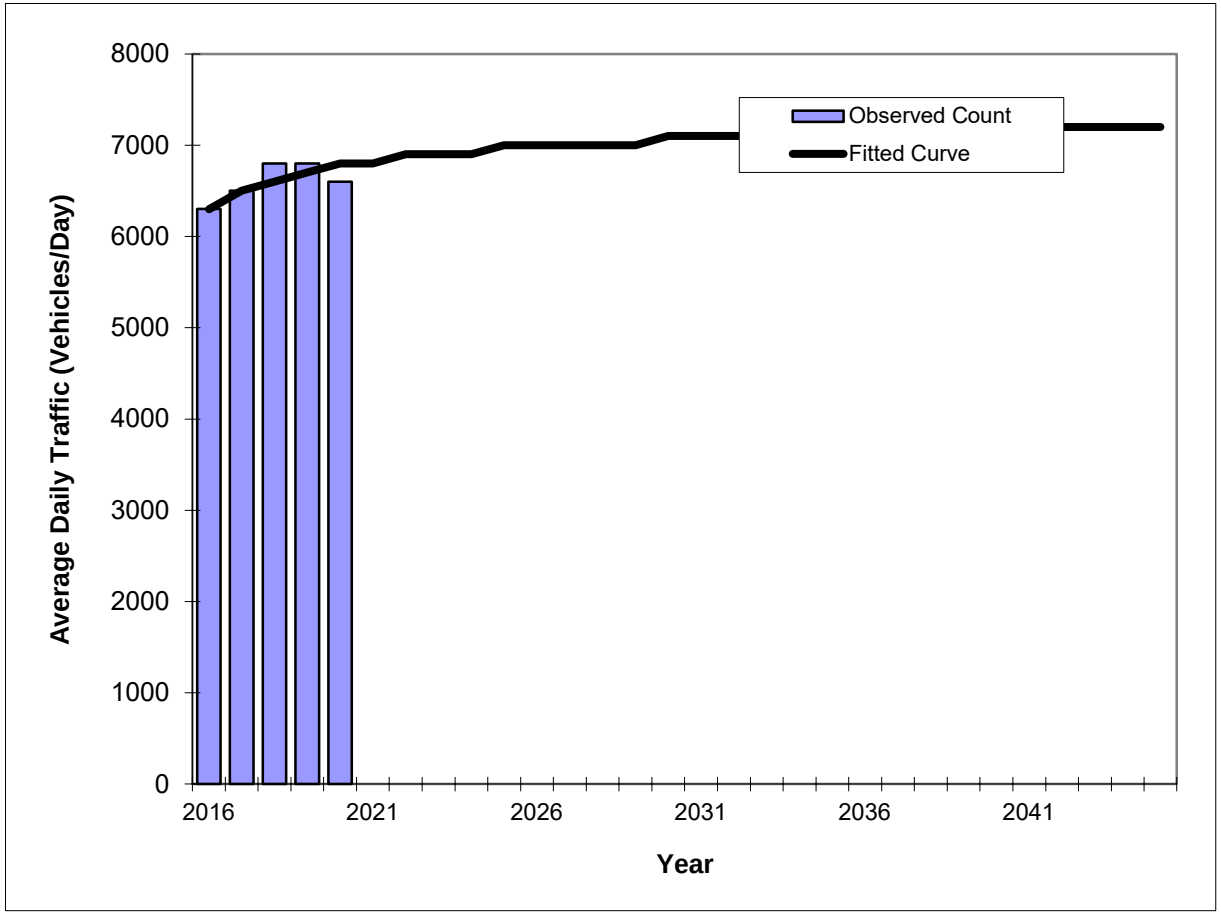
Decaying Exponential Growth Option

Traffic Trends - V03.a

ORANGE AVE --

FIN#	1234
Location	1

County:	Sarasota (17)
Station #:	4422
Highway:	ORANGE AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2016	6300	6300
2017	6500	6500
2018	6800	6600
2019	6800	6700
2020	6600	6800
2025 Opening Year Trend		
2025	N/A	7000
2035 Mid-Year Trend		
2035	N/A	7100
2045 Design Year Trend		
2045	N/A	7200
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

Trend R-squared:	62.90%
Compounded Annual Historic Growth Rate:	1.93%
Compounded Growth Rate (2020 to Design Year):	0.23%
Printed:	10-Jun-22

Decaying Exponential Growth Option

Appendix H:

Intersection Analysis Sheets: Future Conditions

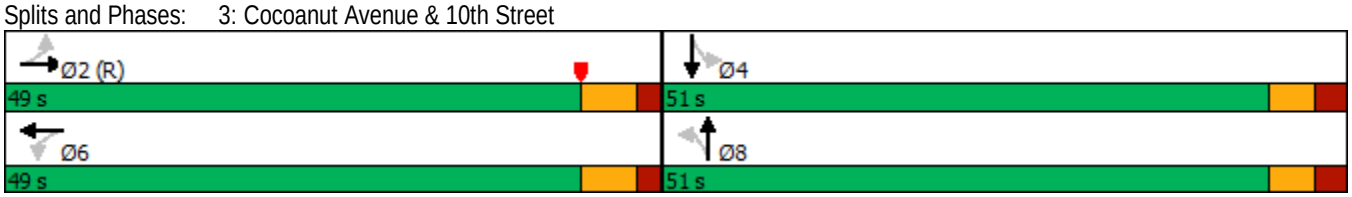
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	415	79	117	441	61	51	37	45	94	82	107
Future Volume (vph)	11	415	79	117	441	61	51	37	45	94	82	107
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.976			0.982			0.954			0.949	
Flt Protected	0.950			0.950				0.981			0.984	
Satd. Flow (prot)	1770	3454	0	1770	3476	0	0	1743	0	0	1739	0
Flt Permitted	0.441			0.446				0.715			0.829	
Satd. Flow (perm)	821	3454	0	831	3476	0	0	1271	0	0	1465	0
Satd. Flow (RTOR)		28			19			34			40	
Adj. Flow (vph)	12	451	86	127	479	66	55	40	49	102	89	116
Lane Group Flow (vph)	12	537	0	127	545	0	0	144	0	0	307	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	24.1	24.1		24.1	24.1		24.0	24.0		24.0	24.0	
Total Split (s)	49.0	49.0		49.0	49.0		51.0	51.0		51.0	51.0	
Total Split (%)	49.0%	49.0%		49.0%	49.0%		51.0%	51.0%		51.0%	51.0%	
Maximum Green (s)	42.9	42.9		42.9	42.9		45.0	45.0		45.0	45.0	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	62.6	62.6		62.6	62.6			25.3			25.3	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.25			0.25	
v/c Ratio	0.02	0.25		0.24	0.25			0.41			0.77	
Control Delay	10.2	9.2		5.8	4.4			25.3			41.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	10.2	9.2		5.8	4.4			25.3			41.9	
LOS	B	A		A	A			C			D	
Approach Delay		9.2			4.7			25.3			41.9	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	3	68		21	45			58			159	
Queue Length 95th (ft)	13	124		32	50			99			223	
Internal Link Dist (ft)		265			585			747			600	

[redacted]

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	120			150								
Base Capacity (vph)	513	2172		520	2182			590			681	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.02	0.25		0.24	0.25			0.24			0.45	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 18.9 (19%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 55.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Cocoanut Avenue & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	415	79	117	441	61	51	37	45	94	82	107
Future Volume (veh/h)	11	415	79	117	441	61	51	37	45	94	82	107
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	451	86	127	479	66	55	40	49	102	89	116
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	575	1930	366	579	2033	279	146	107	105	156	120	138
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	862	2981	565	868	3139	431	415	464	453	465	520	598
Grp Volume(v), veh/h	12	268	269	127	270	275	144	0	0	307	0	0
Grp Sat Flow(s),veh/h/ln	862	1777	1769	868	1777	1793	1332	0	0	1583	0	0
Q Serve(g_s), s	0.6	6.2	6.3	7.1	6.3	6.4	0.0	0.0	0.0	9.6	0.0	0.0
Cycle Q Clear(g_c), s	7.0	6.2	6.3	13.5	6.3	6.4	8.8	0.0	0.0	18.3	0.0	0.0
Prop In Lane	1.00		0.32	1.00		0.24	0.38		0.34	0.33		0.38
Lane Grp Cap(c), veh/h	575	1151	1145	579	1151	1161	358	0	0	414	0	0
V/C Ratio(X)	0.02	0.23	0.24	0.22	0.23	0.24	0.40	0.00	0.00	0.74	0.00	0.00
Avail Cap(c_a), veh/h	575	1151	1145	579	1151	1161	676	0	0	752	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	0.97	0.97	0.97	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.8	7.3	7.3	10.1	7.3	7.3	32.6	0.0	0.0	36.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.5	0.5	0.8	0.5	0.5	1.0	0.0	0.0	3.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.3	2.3	1.4	2.3	2.3	3.1	0.0	0.0	7.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	7.8	7.8	11.0	7.8	7.8	33.6	0.0	0.0	40.1	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	C	A	A	D	A	A
Approach Vol, veh/h		549			672			144			307	
Approach Delay, s/veh		7.8			8.4			33.6			40.1	
Approach LOS		A			A			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.9		29.1		70.9		29.1				
Change Period (Y+Rc), s		6.1		6.0		6.1		6.0				
Max Green Setting (Gmax), s		42.9		45.0		42.9		45.0				
Max Q Clear Time (g_c+I1), s		9.0		20.3		15.5		10.8				
Green Ext Time (p_c), s		5.2		2.8		6.1		1.3				

Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	568	53	167	581	62	23	58	31	82	38	99
Future Volume (vph)	20	568	53	167	581	62	23	58	31	82	38	99
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.987			0.986			0.947			0.939	
Flt Protected	0.950			0.950			0.950				0.982	
Satd. Flow (prot)	1770	3493	0	1770	3490	0	1770	1764	0	0	1718	0
Flt Permitted	0.374			0.385			0.499				0.836	
Satd. Flow (perm)	697	3493	0	717	3490	0	930	1764	0	0	1462	0
Satd. Flow (RTOR)		17			19			27			42	
Adj. Flow (vph)	22	617	58	182	632	67	25	63	34	89	41	108
Lane Group Flow (vph)	22	675	0	182	699	0	25	97	0	0	238	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		24.0	24.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	24.1	24.1		30.1	30.1		23.7	23.7		23.7	23.7	
Total Split (s)	65.0	65.0		65.0	65.0		35.0	35.0		35.0	35.0	
Total Split (%)	65.0%	65.0%		65.0%	65.0%		35.0%	35.0%		35.0%	35.0%	
Maximum Green (s)	58.9	58.9		58.9	58.9		29.3	29.3		29.3	29.3	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.7	5.7			5.7	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	68.4	68.4		68.4	68.4		19.8	19.8			19.8	
Actuated g/C Ratio	0.68	0.68		0.68	0.68		0.20	0.20			0.20	
v/c Ratio	0.05	0.28		0.37	0.29		0.14	0.26			0.74	
Control Delay	5.6	5.3		12.9	8.2		31.7	24.5			43.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	5.6	5.3		12.9	8.2		31.7	24.5			43.7	
LOS	A	A		B	A		C	C			D	
Approach Delay		5.3			9.1			26.0			43.7	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	4	66		64	111		13	38			118	
Queue Length 95th (ft)	m11	91		162	205		33	74			185	
Internal Link Dist (ft)		585			604			682			630	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	150			205			50					
Base Capacity (vph)	476	2394		490	2392		272	535			458	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.05	0.28		0.37	0.29		0.09	0.18			0.52	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 23 (23%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 71.6%	ICU Level of Service C
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 9: Central Avenue & 10th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	568	53	167	581	62	23	58	31	82	38	99
Future Volume (veh/h)	20	568	53	167	581	62	23	58	31	82	38	99
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	617	58	182	632	67	25	63	34	89	41	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	520	2225	209	589	2197	233	247	234	126	138	64	127
Arrive On Green	1.00	1.00	1.00	0.68	0.68	0.68	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	747	3284	308	764	3242	343	1239	1143	617	434	314	621
Grp Volume(v), veh/h	22	333	342	182	346	353	25	0	97	238	0	0
Grp Sat Flow(s),veh/h/ln	747	1777	1815	764	1777	1809	1239	0	1759	1369	0	0
Q Serve(g_s), s	0.4	0.0	0.0	10.1	7.8	7.8	0.0	0.0	4.6	12.5	0.0	0.0
Cycle Q Clear(g_c), s	8.2	0.0	0.0	10.1	7.8	7.8	2.6	0.0	4.6	17.1	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.19	1.00		0.35	0.37		0.45
Lane Grp Cap(c), veh/h	520	1204	1230	589	1204	1226	247	0	360	329	0	0
V/C Ratio(X)	0.04	0.28	0.28	0.31	0.29	0.29	0.10	0.00	0.27	0.72	0.00	0.00
Avail Cap(c_a), veh/h	520	1204	1230	589	1204	1226	357	0	515	462	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.5	0.0	0.0	6.8	6.5	6.5	32.7	0.0	33.5	39.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.6	0.6	1.3	0.6	0.6	0.3	0.0	0.6	4.5	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	0.0	0.2	0.2	1.6	2.7	2.8	0.5	0.0	2.0	6.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.6	0.6	0.6	8.2	7.0	7.0	32.9	0.0	34.1	43.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	D	A	A
Approach Vol, veh/h		697			881			122			238	
Approach Delay, s/veh		0.6			7.3			33.8			43.5	
Approach LOS		A			A			C			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	73.9	26.1	73.9	26.1
Change Period (Y+Rc), s	6.1	* 5.7	6.1	* 5.7
Max Green Setting (Gmax), s	58.9	* 29	58.9	* 29
Max Q Clear Time (g_c+I1), s	10.2	19.1	12.1	6.6
Green Ext Time (p_c), s	7.3	1.3	10.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

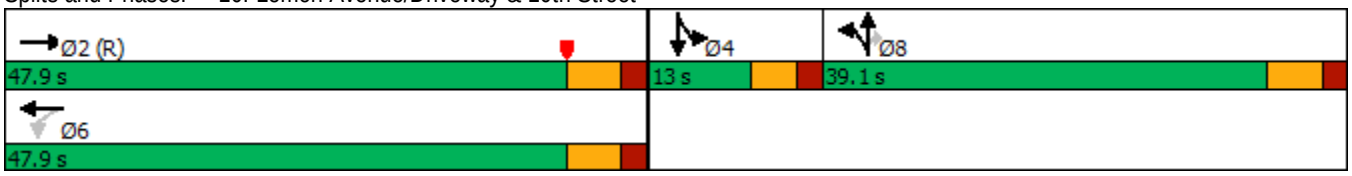
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	529	69	105	633	0	48	0	47	0	1	0
Future Volume (vph)	0	529	69	105	633	0	48	0	47	0	1	0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.983							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	3479	0	1770	3539	0	1681	1681	1583	0	1863	0
Flt Permitted				0.405			0.950	0.950				
Satd. Flow (perm)	0	3479	0	754	3539	0	1681	1681	1583	0	1863	0
Satd. Flow (RTOR)		17							93			
Adj. Flow (vph)	0	575	75	114	688	0	52	0	51	0	1	0
Lane Group Flow (vph)	0	650	0	114	688	0	26	26	51	0	1	0
Turn Type		NA		Perm	NA		Split	NA	Perm		NA	
Protected Phases		2			6		8	8		4	4	
Permitted Phases				6					8			
Detector Phase		2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)		7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)		35.1		28.1	28.1		39.1	39.1	39.1	12.4	12.4	
Total Split (s)		47.9		47.9	47.9		39.1	39.1	39.1	13.0	13.0	
Total Split (%)		47.9%		47.9%	47.9%		39.1%	39.1%	39.1%	13.0%	13.0%	
Maximum Green (s)		41.8		41.8	41.8		33.0	33.0	33.0	7.6	7.6	
Yellow Time (s)		4.1		4.1	4.1		4.1	4.1	4.1	3.4	3.4	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)		6.1		6.1	6.1		6.1	6.1	6.1		5.4	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Gap (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Recall Mode		C-Max		Max	Max		None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0	7.0			
Flash Dont Walk (s)		22.0		15.0	15.0		26.0	26.0	26.0			
Pedestrian Calls (#/hr)		0		0	0		0	0	0			
Act Effct Green (s)		81.0		81.0	81.0		8.2	8.2	8.2		7.0	
Actuated g/C Ratio		0.81		0.81	0.81		0.08	0.08	0.08		0.07	
v/c Ratio		0.23		0.19	0.24		0.19	0.19	0.24		0.01	
Control Delay		3.4		3.2	2.3		45.5	45.5	4.6		43.0	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay		3.4		3.2	2.3		45.5	45.5	4.6		43.0	
LOS		A		A	A		D	D	A		D	
Approach Delay		3.4			2.4			25.2			43.0	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)		26		5	17		16	16	0		1	
Queue Length 95th (ft)		102		m38	m102		43	43	9		6	
Internal Link Dist (ft)		604			575			678			183	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				90			270		270			
Base Capacity (vph)		2820		610	2865		554	554	584		141	
Starvation Cap Reductn		0		0	0		0	0	0		0	
Spillback Cap Reductn		0		0	0		0	0	0		0	
Storage Cap Reductn		0		0	0		0	0	0		0	
Reduced v/c Ratio		0.23		0.19	0.24		0.05	0.05	0.09		0.01	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.24	
Intersection Signal Delay: 4.4	Intersection LOS: A
Intersection Capacity Utilization 45.9%	ICU Level of Service A
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 10: Lemon Avenue/Driveway & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	529	69	105	633	0	48	0	47	0	1	0
Future Volume (veh/h)	0	529	69	105	633	0	48	0	47	0	1	0
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	575	75	114	688	0	52	0	51	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2391	311	663	2687	0	235	0	105	0	4	0
Arrive On Green	0.00	1.00	1.00	1.00	1.00	0.00	0.07	0.00	0.07	0.00	0.00	0.00
Sat Flow, veh/h	0	3255	411	782	3647	0	3563	0	1585	0	1870	0
Grp Volume(v), veh/h	0	323	327	114	688	0	52	0	51	0	1	0
Grp Sat Flow(s),veh/h/ln	0	1777	1796	782	1777	0	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	3.1	0.0	0.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	3.1	0.0	0.1	0.0
Prop In Lane	0.00		0.23	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	1343	1358	663	2687	0	235	0	105	0	4	0
V/C Ratio(X)	0.00	0.24	0.24	0.17	0.26	0.00	0.22	0.00	0.49	0.00	0.28	0.00
Avail Cap(c_a), veh/h	0	1343	1358	663	2687	0	1176	0	523	0	142	0
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.97	0.97	0.65	0.65	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	44.3	0.0	45.1	0.0	49.8	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.4	0.4	0.1	0.0	0.7	0.0	4.9	0.0	51.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.2	0.1	0.1	0.0	0.6	0.0	1.3	0.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.4	0.4	0.4	0.1	0.0	44.9	0.0	50.0	0.0	101.4	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	A	F	A
Approach Vol, veh/h		650			802			103			1	
Approach Delay, s/veh		0.4			0.2			47.4			101.4	
Approach LOS		A			A			D			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	81.7	5.6	81.7	12.7
Change Period (Y+Rc), s	6.1	5.4	6.1	6.1
Max Green Setting (Gmax), s	41.8	7.6	41.8	33.0
Max Q Clear Time (g_c+I1), s	2.0	2.1	2.0	5.1
Green Ext Time (p_c), s	6.5	0.0	9.2	0.5

Intersection Summary	
HCM 6th Ctrl Delay	3.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

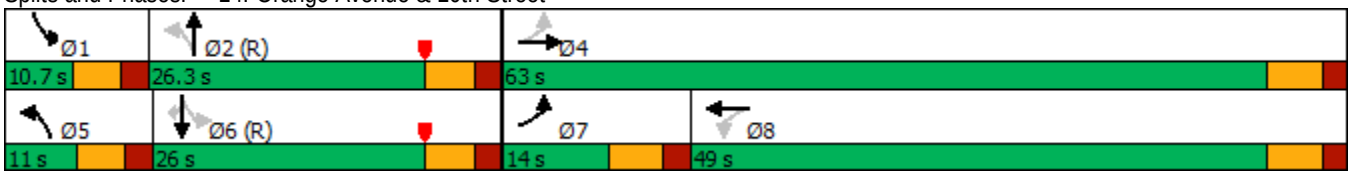
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	364	60	72	335	114	82	78	48	27	161	54
Future Volume (vph)	216	364	60	72	335	114	82	78	48	27	161	54
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.970			0.943				0.850
Flt Protected	0.950				0.993		0.950			0.950		
Satd. Flow (prot)	1770	1824	0	0	1794	0	1770	1757	0	1770	1863	1583
Flt Permitted	0.324				0.872		0.533			0.669		
Satd. Flow (perm)	604	1824	0	0	1576	0	993	1757	0	1246	1863	1583
Satd. Flow (RTOR)		14			18			28				163
Adj. Flow (vph)	235	396	65	78	364	124	89	85	52	29	175	59
Lane Group Flow (vph)	235	461	0	0	566	0	89	137	0	29	175	59
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	7.0		7.0	7.0		5.0	7.0		5.0	7.0	7.0
Minimum Split (s)	11.1	24.1		24.1	24.1		10.7	23.7		10.7	23.7	23.7
Total Split (s)	14.0	63.0		49.0	49.0		11.0	26.3		10.7	26.0	26.0
Total Split (%)	14.0%	63.0%		49.0%	49.0%		11.0%	26.3%		10.7%	26.0%	26.0%
Maximum Green (s)	7.9	56.9		42.9	42.9		5.3	20.6		5.0	20.3	20.3
Yellow Time (s)	4.1	4.1		4.1	4.1		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.1	6.1			6.1		5.7	5.7		5.7	5.7	5.7
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	4.0		3.0	4.0	4.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Max		Max	Max		None	C-Max		None	C-Max	C-Max
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	11.0
Pedestrian Calls (#/hr)		0		0	0			0			0	0
Act Effct Green (s)	56.9	56.9			42.9		28.1	24.9		26.5	22.5	22.5
Actuated g/C Ratio	0.57	0.57			0.43		0.28	0.25		0.26	0.22	0.22
v/c Ratio	0.54	0.44			0.83		0.28	0.30		0.08	0.42	0.12
Control Delay	18.9	15.8			36.4		28.0	27.9		24.9	38.0	0.5
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	18.9	15.8			36.4		28.0	27.9		24.9	38.0	0.5
LOS	B	B			D		C	C		C	D	A
Approach Delay		16.8			36.4			28.0			28.2	
Approach LOS		B			D			C			C	
Queue Length 50th (ft)	69	204			302		41	59		13	99	0
Queue Length 95th (ft)	166	351			#498		79	116		34	165	0
Internal Link Dist (ft)		575			583			465			505	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)							100			60		150
Base Capacity (vph)	435	1043			686		319	458		356	419	482
Starvation Cap Reductn	0	0			0		0	0		0	0	0
Spillback Cap Reductn	0	0			0		0	0		0	0	0
Storage Cap Reductn	0	0			0		0	0		0	0	0
Reduced v/c Ratio	0.54	0.44			0.83		0.28	0.30		0.08	0.42	0.12

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 88 (88%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 26.3 Intersection LOS: C
Intersection Capacity Utilization 84.0% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Orange Avenue & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	364	60	72	335	114	82	78	48	27	161	54
Future Volume (veh/h)	216	364	60	72	335	114	82	78	48	27	161	54
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	235	396	65	78	364	124	89	85	52	29	175	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	443	892	146	116	471	153	312	248	152	325	380	
Arrive On Green	0.05	0.38	0.38	0.43	0.43	0.43	0.05	0.23	0.23	0.03	0.20	0.00
Sat Flow, veh/h	1781	1567	257	175	1098	357	1781	1086	665	1781	1870	1585
Grp Volume(v), veh/h	235	0	461	566	0	0	89	0	137	29	175	0
Grp Sat Flow(s),veh/h/ln	1781	0	1824	1630	0	0	1781	0	1751	1781	1870	1585
Q Serve(g_s), s	7.0	0.0	18.8	21.3	0.0	0.0	3.9	0.0	6.6	1.3	8.2	0.0
Cycle Q Clear(g_c), s	7.0	0.0	18.8	29.9	0.0	0.0	3.9	0.0	6.6	1.3	8.2	0.0
Prop In Lane	1.00		0.14	0.14		0.22	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	443	0	1038	740	0	0	312	0	400	325	380	
V/C Ratio(X)	0.53	0.00	0.44	0.76	0.00	0.00	0.28	0.00	0.34	0.09	0.46	
Avail Cap(c_a), veh/h	443	0	1038	740	0	0	312	0	400	365	380	
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.00	0.98	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.2	0.0	19.2	24.5	0.0	0.0	29.5	0.0	32.3	30.2	35.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	1.4	7.4	0.0	0.0	0.5	0.0	2.3	0.1	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	8.8	12.7	0.0	0.0	1.7	0.0	3.0	0.6	4.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.3	0.0	20.5	31.9	0.0	0.0	30.0	0.0	34.6	30.3	39.0	0.0
LnGrp LOS	B	A	C	C	A	A	C	A	C	C	D	
Approach Vol, veh/h		696			566			226			204	A
Approach Delay, s/veh		18.4			31.9			32.8			37.8	
Approach LOS		B			C			C			D	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	28.5		63.0	11.0	26.0	14.0	49.0
Change Period (Y+Rc), s	* 5.7	* 5.7		6.1	* 5.7	* 5.7	6.1	6.1
Max Green Setting (Gmax), s	* 5	* 21		56.9	* 5.3	* 20	7.9	42.9
Max Q Clear Time (g_c+I1), s	3.3	8.6		20.8	5.9	10.2	9.0	31.9
Green Ext Time (p_c), s	0.0	0.7		4.6	0.0	0.8	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

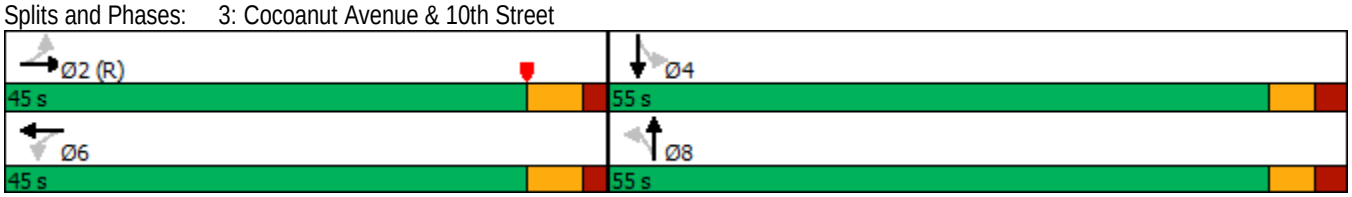
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	407	80	69	567	79	111	83	97	76	65	86
Future Volume (vph)	29	407	80	69	567	79	111	83	97	76	65	86
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.975			0.982			0.955			0.949	
Flt Protected	0.950			0.950				0.981			0.983	
Satd. Flow (prot)	1770	3451	0	1770	3476	0	0	1745	0	0	1738	0
Flt Permitted	0.358			0.446				0.724			0.730	
Satd. Flow (perm)	667	3451	0	831	3476	0	0	1288	0	0	1290	0
Satd. Flow (RTOR)		27			18			35			43	
Adj. Flow (vph)	32	442	87	75	616	86	121	90	105	83	71	93
Lane Group Flow (vph)	32	529	0	75	702	0	0	316	0	0	247	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	26.1	26.1		24.1	24.1		24.0	24.0		42.0	42.0	
Total Split (s)	45.0	45.0		45.0	45.0		55.0	55.0		55.0	55.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	
Maximum Green (s)	38.9	38.9		38.9	38.9		49.0	49.0		49.0	49.0	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0								7.0	7.0	
Flash Dont Walk (s)	13.0	13.0								29.0	29.0	
Pedestrian Calls (#/hr)	0	0								0	0	
Act Effct Green (s)	60.0	60.0		60.0	60.0			27.9			27.9	
Actuated g/C Ratio	0.60	0.60		0.60	0.60			0.28			0.28	
v/c Ratio	0.08	0.25		0.15	0.34			0.82			0.63	
Control Delay	12.1	10.6		8.8	7.7			46.3			31.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	12.1	10.6		8.8	7.7			46.3			31.9	
LOS	B	B		A	A			D			C	
Approach Delay		10.7			7.8			46.3			31.9	
Approach LOS		B			A			D			C	
Queue Length 50th (ft)	8	72		11	64			169			114	
Queue Length 95th (ft)	28	133		35	110			234			167	
Internal Link Dist (ft)		265			585			747			600	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	120			150								
Base Capacity (vph)	399	2079		498	2091			648			654	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.08	0.25		0.15	0.34			0.49			0.38	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 73 (73%), Referenced to phase 2:EBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 18.2 — Intersection LOS: B
Intersection Capacity Utilization 61.9% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Cocoanut Avenue & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	407	80	69	567	79	111	83	97	76	65	86
Future Volume (veh/h)	29	407	80	69	567	79	111	83	97	76	65	86
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	442	87	75	616	86	121	90	105	83	71	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	454	1805	353	544	1908	266	178	122	124	151	131	141
Arrive On Green	0.61	0.61	0.61	0.61	0.61	0.61	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	745	2964	579	874	3132	436	473	451	460	379	484	521
Grp Volume(v), veh/h	32	264	265	75	349	353	316	0	0	247	0	0
Grp Sat Flow(s),veh/h/ln	745	1777	1766	874	1777	1792	1385	0	0	1385	0	0
Q Serve(g_s), s	2.2	6.8	6.9	4.3	9.6	9.6	6.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.8	6.8	6.9	11.2	9.6	9.6	22.0	0.0	0.0	15.7	0.0	0.0
Prop In Lane	1.00		0.33	1.00		0.24	0.38		0.33	0.34		0.38
Lane Grp Cap(c), veh/h	454	1082	1076	544	1082	1091	424	0	0	422	0	0
V/C Ratio(X)	0.07	0.24	0.25	0.14	0.32	0.32	0.75	0.00	0.00	0.59	0.00	0.00
Avail Cap(c_a), veh/h	454	1082	1076	544	1082	1091	749	0	0	748	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	0.95	0.95	0.95	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.4	9.0	9.0	11.6	9.5	9.5	34.7	0.0	0.0	31.9	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.5	0.5	0.5	0.8	0.7	3.7	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.6	2.6	0.9	3.6	3.6	7.6	0.0	0.0	5.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.7	9.5	9.5	12.1	10.3	10.3	38.4	0.0	0.0	33.8	0.0	0.0
LnGrp LOS	B	A	A	B	B	B	D	A	A	C	A	A
Approach Vol, veh/h		561			777			316			247	
Approach Delay, s/veh		9.7			10.4			38.4			33.8	
Approach LOS		A			B			D			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		67.0		33.0		67.0		33.0				
Change Period (Y+Rc), s		6.1		6.0		6.1		6.0				
Max Green Setting (Gmax), s		38.9		49.0		38.9		49.0				
Max Q Clear Time (g_c+I1), s		13.8		17.7		13.2		24.0				
Green Ext Time (p_c), s		4.9		2.4		7.2		3.0				

Intersection Summary												
HCM 6th Ctrl Delay			17.9									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	549	55	66	696	74	68	107	65	62	31	73
Future Volume (vph)	22	549	55	66	696	74	68	107	65	62	31	73
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.986			0.986			0.943			0.941	
Flt Protected	0.950			0.950			0.950				0.982	
Satd. Flow (prot)	1770	3490	0	1770	3490	0	1770	1757	0	0	1721	0
Flt Permitted	0.323			0.399			0.538				0.601	
Satd. Flow (perm)	602	3490	0	743	3490	0	1002	1757	0	0	1053	0
Satd. Flow (RTOR)		17			18			33			42	
Adj. Flow (vph)	24	597	60	72	757	80	74	116	71	67	34	79
Lane Group Flow (vph)	24	657	0	72	837	0	74	187	0	0	180	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		24.0	24.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	29.1	29.1		30.1	30.1		23.7	23.7		23.7	23.7	
Total Split (s)	62.0	62.0		62.0	62.0		38.0	38.0		38.0	38.0	
Total Split (%)	62.0%	62.0%		62.0%	62.0%		38.0%	38.0%		38.0%	38.0%	
Maximum Green (s)	55.9	55.9		55.9	55.9		32.3	32.3		32.3	32.3	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.7	5.7			5.7	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	16.0	16.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	72.0	72.0		72.0	72.0		16.2	16.2			16.2	
Actuated g/C Ratio	0.72	0.72		0.72	0.72		0.16	0.16			0.16	
v/c Ratio	0.06	0.26		0.13	0.33		0.46	0.60			0.88	
Control Delay	5.4	5.3		3.4	3.1		45.3	39.0			67.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	5.4	5.3		3.4	3.1		45.3	39.0			67.9	
LOS	A	A		A	A		D	D			E	
Approach Delay		5.3			3.1			40.8			67.9	
Approach LOS		A			A			D			E	
Queue Length 50th (ft)	4	63		10	60		43	92			88	
Queue Length 95th (ft)	m12	82		10	47		82	149			#160	
Internal Link Dist (ft)		585			604			682			630	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	150			205			50					
Base Capacity (vph)	433	2517		534	2517		323	589			368	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.06	0.26		0.13	0.33		0.23	0.32			0.49	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:EBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 14.4 Intersection LOS: B
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Central Avenue & 10th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	549	55	66	696	74	68	107	65	62	31	73
Future Volume (veh/h)	22	549	55	66	696	74	68	107	65	62	31	73
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	597	60	72	757	80	74	116	71	67	34	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	451	2204	221	597	2192	232	248	224	137	109	63	96
Arrive On Green	1.00	1.00	1.00	0.68	0.68	0.68	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	657	3261	327	777	3243	343	1280	1086	665	291	306	467
Grp Volume(v), veh/h	24	325	332	72	415	422	74	0	187	180	0	0
Grp Sat Flow(s),veh/h/ln	657	1777	1811	777	1777	1809	1280	0	1751	1064	0	0
Q Serve(g_s), s	0.6	0.0	0.0	3.3	9.9	9.9	0.0	0.0	9.5	8.0	0.0	0.0
Cycle Q Clear(g_c), s	10.4	0.0	0.0	3.3	9.9	9.9	8.4	0.0	9.5	17.5	0.0	0.0
Prop In Lane	1.00		0.18	1.00		0.19	1.00		0.38	0.37		0.44
Lane Grp Cap(c), veh/h	451	1201	1224	597	1201	1223	248	0	361	269	0	0
V/C Ratio(X)	0.05	0.27	0.27	0.12	0.35	0.35	0.30	0.00	0.52	0.67	0.00	0.00
Avail Cap(c_a), veh/h	451	1201	1224	597	1201	1223	397	0	565	438	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	5.8	6.8	6.8	34.8	0.0	35.3	39.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.5	0.5	0.4	0.8	0.8	1.0	0.0	1.6	4.1	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	0.0	0.2	0.2	0.5	3.4	3.5	1.6	0.0	4.2	4.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.0	0.5	0.5	6.2	7.6	7.6	35.8	0.0	36.9	43.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	A
Approach Vol, veh/h		681			909			261			180	
Approach Delay, s/veh		0.6			7.5			36.6			43.3	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	73.7	26.3	73.7	26.3
Change Period (Y+Rc), s	6.1	* 5.7	6.1	* 5.7
Max Green Setting (Gmax), s	55.9	* 32	55.9	* 32
Max Q Clear Time (g_c+I1), s	12.4	19.5	11.9	11.5
Green Ext Time (p_c), s	7.0	1.1	10.3	1.8

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

Notes

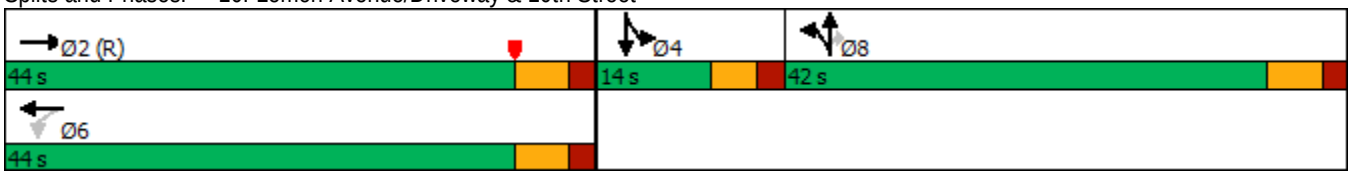
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	528	69	47	565	0	94	0	104	0	4	0
Future Volume (vph)	0	528	69	47	565	0	94	0	104	0	4	0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.983							0.850			
Flt Protected				0.950			0.950	0.950				
Satd. Flow (prot)	0	3479	0	1770	3539	0	1681	1681	1583	0	1863	0
Flt Permitted				0.402			0.950	0.950				
Satd. Flow (perm)	0	3479	0	749	3539	0	1681	1681	1583	0	1863	0
Satd. Flow (RTOR)		16							113			
Adj. Flow (vph)	0	574	75	51	614	0	102	0	113	0	4	0
Lane Group Flow (vph)	0	649	0	51	614	0	51	51	113	0	4	0
Turn Type		NA		Perm	NA		Split	NA	Perm		NA	
Protected Phases		2			6		8	8		4	4	
Permitted Phases				6					8			
Detector Phase		2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)		7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)		35.1		28.1	28.1		39.1	39.1	39.1	12.4	12.4	
Total Split (s)		44.0		44.0	44.0		42.0	42.0	42.0	14.0	14.0	
Total Split (%)		44.0%		44.0%	44.0%		42.0%	42.0%	42.0%	14.0%	14.0%	
Maximum Green (s)		37.9		37.9	37.9		35.9	35.9	35.9	8.6	8.6	
Yellow Time (s)		4.1		4.1	4.1		4.1	4.1	4.1	3.4	3.4	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)		6.1		6.1	6.1		6.1	6.1	6.1		5.4	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Gap (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Recall Mode		C-Max		Max	Max		None	None	None	None	None	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0	7.0			
Flash Dont Walk (s)		22.0		15.0	15.0		26.0	26.0	26.0			
Pedestrian Calls (#/hr)		0		0	0		0	0	0			
Act Effct Green (s)		75.7		75.7	75.7		9.6	9.6	9.6		7.1	
Actuated g/C Ratio		0.76		0.76	0.76		0.10	0.10	0.10		0.07	
v/c Ratio		0.25		0.09	0.23		0.32	0.32	0.45		0.03	
Control Delay		2.2		3.2	2.7		46.7	46.7	13.9		43.8	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay		2.2		3.2	2.7		46.7	46.7	13.9		43.8	
LOS		A		A	A		D	D	B		D	
Approach Delay		2.2			2.8			29.4			43.8	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)		16		2	12		32	32	0		2	
Queue Length 95th (ft)		60		m20	m108		69	69	50		13	
Internal Link Dist (ft)		604			575			678			183	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				90			270		270			
Base Capacity (vph)		2636		566	2678		603	603	640		160	
Starvation Cap Reductn		0		0	0		0	0	0		0	
Spillback Cap Reductn		0		0	0		0	0	0		0	
Storage Cap Reductn		0		0	0		0	0	0		0	
Reduced v/c Ratio		0.25		0.09	0.23		0.08	0.08	0.18		0.03	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 89 (89%), Referenced to phase 2:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 6.4	Intersection LOS: A
Intersection Capacity Utilization 47.1%	ICU Level of Service A
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 10: Lemon Avenue/Driveway & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	528	69	47	565	0	94	0	104	0	4	0
Future Volume (veh/h)	0	528	69	47	565	0	94	0	104	0	4	0
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	574	75	51	614	0	102	0	113	0	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0	2	2	2	2	2	2
Cap, veh/h	0	2266	295	633	2547	0	356	0	158	0	14	0
Arrive On Green	0.00	1.00	1.00	1.00	1.00	0.00	0.10	0.00	0.10	0.00	0.01	0.00
Sat Flow, veh/h	0	3255	412	782	3647	0	3563	0	1585	0	1870	0
Grp Volume(v), veh/h	0	322	327	51	614	0	102	0	113	0	4	0
Grp Sat Flow(s),veh/h/ln	0	1777	1796	782	1777	0	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	6.9	0.0	0.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	6.9	0.0	0.2	0.0
Prop In Lane	0.00		0.23	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	1274	1287	633	2547	0	356	0	158	0	14	0
V/C Ratio(X)	0.00	0.25	0.25	0.08	0.24	0.00	0.29	0.00	0.71	0.00	0.29	0.00
Avail Cap(c_a), veh/h	0	1274	1287	633	2547	0	1279	0	569	0	161	0
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	0.51	0.51	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	41.7	0.0	43.6	0.0	49.4	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.5	0.1	0.1	0.0	0.6	0.0	8.2	0.0	15.7	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	0.0	0.2	0.2	0.0	0.0	0.0	1.2	0.0	3.0	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.5	0.5	0.1	0.1	0.0	42.3	0.0	51.8	0.0	65.1	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	A	E	A
Approach Vol, veh/h		649			665			215			4	
Approach Delay, s/veh		0.5			0.1			47.3			65.1	
Approach LOS		A			A			D			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	77.8	6.1	77.8	16.1
Change Period (Y+Rc), s	6.1	5.4	6.1	6.1
Max Green Setting (Gmax), s	37.9	8.6	37.9	35.9
Max Q Clear Time (g_c+I1), s	2.0	2.2	2.0	8.9
Green Ext Time (p_c), s	6.4	0.0	7.2	1.1

Intersection Summary	
HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

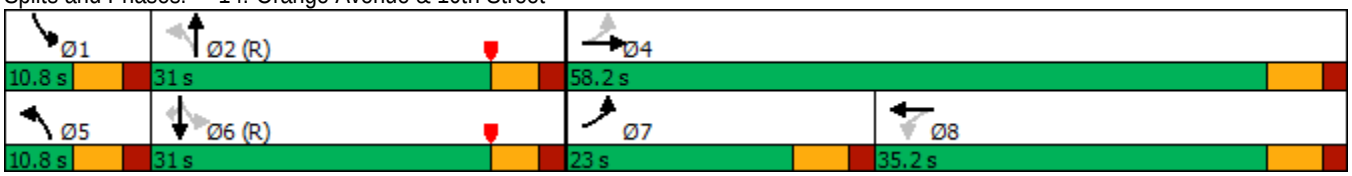
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	425	331	53	61	277	95	143	202	129	35	119	42
Future Volume (vph)	425	331	53	61	277	95	143	202	129	35	119	42
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.970			0.942				0.850
Flt Protected	0.950				0.993		0.950			0.950		
Satd. Flow (prot)	1770	1824	0	0	1794	0	1770	1755	0	1770	1863	1583
Flt Permitted	0.268				0.874		0.623			0.320		
Satd. Flow (perm)	499	1824	0	0	1579	0	1160	1755	0	596	1863	1583
Satd. Flow (RTOR)		12			14			31				163
Adj. Flow (vph)	462	360	58	66	301	103	155	220	140	38	129	46
Lane Group Flow (vph)	462	418	0	0	470	0	155	360	0	38	129	46
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	7.0		7.0	7.0		5.0	7.0		5.0	7.0	7.0
Minimum Split (s)	11.1	24.1		13.1	13.1		10.7	30.7		10.7	30.7	30.7
Total Split (s)	23.0	58.2		35.2	35.2		10.8	31.0		10.8	31.0	31.0
Total Split (%)	23.0%	58.2%		35.2%	35.2%		10.8%	31.0%		10.8%	31.0%	31.0%
Maximum Green (s)	16.9	52.1		29.1	29.1		5.1	25.3		5.1	25.3	25.3
Yellow Time (s)	4.1	4.1		4.1	4.1		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.1	6.1			6.1		5.7	5.7		5.7	5.7	5.7
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	4.0		4.0	4.0		3.0	4.0		3.0	4.0	4.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Max		Max	Max		None	C-Max		None	C-Max	C-Max
Walk Time (s)		7.0						7.0			7.0	7.0
Flash Dont Walk (s)		11.0						18.0			18.0	18.0
Pedestrian Calls (#/hr)		0						0			0	0
Act Effct Green (s)	52.1	52.1			29.1		32.7	29.6		30.4	25.3	25.3
Actuated g/C Ratio	0.52	0.52			0.29		0.33	0.30		0.30	0.25	0.25
v/c Ratio	0.97	0.44			1.00		0.38	0.67		0.16	0.27	0.09
Control Delay	63.4	21.3			78.0		27.1	36.7		22.7	31.9	0.3
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	63.4	21.3			78.0		27.1	36.7		22.7	31.9	0.3
LOS	E	C			E		C	D		C	C	A
Approach Delay		43.4			78.0			33.8			23.4	
Approach LOS		D			E			C			C	
Queue Length 50th (ft)	254	196			~293		68	196		16	66	0
Queue Length 95th (ft)	#380	309			#506		117	#329		38	117	0
Internal Link Dist (ft)		575			583			465			505	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)							100			60		150
Base Capacity (vph)	474	956			469		409	541		241	471	522
Starvation Cap Reductn	0	0			0		0	0		0	0	0
Spillback Cap Reductn	0	0			0		0	0		0	0	0
Storage Cap Reductn	0	0			0		0	0		0	0	0
Reduced v/c Ratio	0.97	0.44			1.00		0.38	0.67		0.16	0.27	0.09

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 68 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 46.8 Intersection LOS: D
Intersection Capacity Utilization 89.6% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Orange Avenue & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	425	331	53	61	277	95	143	202	129	35	119	42
Future Volume (veh/h)	425	331	53	61	277	95	143	202	129	35	119	42
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	462	360	58	66	301	103	155	220	140	38	129	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	490	819	132	92	322	105	412	290	184	214	473	
Arrive On Green	0.28	0.87	0.87	0.29	0.29	0.29	0.05	0.27	0.27	0.03	0.25	0.00
Sat Flow, veh/h	1781	1572	253	176	1106	360	1781	1068	680	1781	1870	1585
Grp Volume(v), veh/h	462	0	418	470	0	0	155	0	360	38	129	0
Grp Sat Flow(s),veh/h/ln	1781	0	1825	1642	0	0	1781	0	1748	1781	1870	1585
Q Serve(g_s), s	16.9	0.0	4.8	22.2	0.0	0.0	5.1	0.0	18.9	1.6	5.5	0.0
Cycle Q Clear(g_c), s	16.9	0.0	4.8	28.4	0.0	0.0	5.1	0.0	18.9	1.6	5.5	0.0
Prop In Lane	1.00		0.14	0.14		0.22	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	490	0	951	519	0	0	412	0	474	214	473	
V/C Ratio(X)	0.94	0.00	0.44	0.91	0.00	0.00	0.38	0.00	0.76	0.18	0.27	
Avail Cap(c_a), veh/h	490	0	951	519	0	0	412	0	474	247	473	
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.00	0.97	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.0	0.0	3.4	34.9	0.0	0.0	27.8	0.0	33.4	27.6	30.0	0.0
Incr Delay (d2), s/veh	26.2	0.0	1.4	22.0	0.0	0.0	0.6	0.0	10.9	0.4	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	0.0	1.6	14.2	0.0	0.0	0.6	0.0	9.3	0.7	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	0.0	4.9	56.9	0.0	0.0	28.3	0.0	44.3	28.0	31.4	0.0
LnGrp LOS	D	A	A	E	A	A	C	A	D	C	C	
Approach Vol, veh/h		880			470			515			167	A
Approach Delay, s/veh		26.0			56.9			39.5			30.6	
Approach LOS		C			E			D			C	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	32.8		58.2	10.8	31.0	23.0	35.2
Change Period (Y+Rc), s	* 5.7	* 5.7		6.1	* 5.7	* 5.7	6.1	6.1
Max Green Setting (Gmax), s	* 5.1	* 25		52.1	* 5.1	* 25	16.9	29.1
Max Q Clear Time (g_c+I1), s	3.6	20.9		6.8	7.1	7.5	18.9	30.4
Green Ext Time (p_c), s	0.0	1.1		4.2	0.0	0.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	90	84	65	110	90	58	1607	116	72	929	64
Future Volume (vph)	67	90	84	65	110	90	58	1607	116	72	929	64
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850		0.933			0.990			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	2111	1583	1770	1738	0	1770	3504	0	1770	3504	0
Flt Permitted	0.266			0.566			0.219			0.095		
Satd. Flow (perm)	495	2111	1583	1054	1738	0	408	3504	0	177	3504	0
Satd. Flow (RTOR)			85		21			13			10	
Adj. Flow (vph)	73	98	91	71	120	98	63	1747	126	78	1010	70
Lane Group Flow (vph)	73	98	91	71	218	0	63	1873	0	78	1080	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8		8	4			6			2		
Detector Phase	8	8	8	4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		5.0	12.0		12.0	12.0	
Minimum Split (s)	20.0	20.0	20.0	21.7	21.7		11.5	22.5		22.5	22.5	
Total Split (s)	33.0	33.0	33.0	33.0	33.0		11.8	137.0		125.2	125.2	
Total Split (%)	19.4%	19.4%	19.4%	19.4%	19.4%		6.9%	80.6%		73.6%	73.6%	
Maximum Green (s)	29.0	29.0	29.0	27.3	27.3		5.3	130.5		118.7	118.7	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.5	0.5	0.5	2.2	2.2		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	5.7	5.7		6.5	6.5		6.5	6.5	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0			5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0		0	0	
Act Effct Green (s)	25.3	25.3	25.3	23.6	23.6		134.2	134.2		121.8	121.8	
Actuated g/C Ratio	0.15	0.15	0.15	0.14	0.14		0.79	0.79		0.72	0.72	
v/c Ratio	1.00	0.31	0.30	0.49	0.84		0.17	0.68		0.62	0.43	
Control Delay	173.5	66.3	15.3	78.2	90.8		5.4	10.0		38.6	10.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	173.5	66.3	15.3	78.2	90.8		5.4	10.0		38.6	10.7	
LOS	F	E	B	E	F		A	A		D	B	
Approach Delay		78.5			87.7			9.8			12.6	
Approach LOS		E			F			A			B	
Queue Length 50th (ft)	81	98	6	73	216		14	464		44	254	
Queue Length 95th (ft)	#189	158	61	131	#315		28	553		#160	297	
Internal Link Dist (ft)		611			584			456			443	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	65		65	150			50			250		
Base Capacity (vph)	84	360	340	169	296		369	2768		126	2513	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.87	0.27	0.27	0.42	0.74		0.17	0.68		0.62	0.43	

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 93 (55%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 21.8 Intersection LOS: C
Intersection Capacity Utilization 90.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: US 41 & Boulevard of the Arts

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	90	84	65	110	90	58	1607	116	72	929	64
Future Volume (veh/h)	67	90	84	65	110	90	58	1607	116	72	929	64
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	98	91	71	120	98	63	1747	126	78	1010	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	332	270	194	162	133	808	4867	347	376	4655	323
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.03	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1163	1945	1585	1194	952	778	1781	3364	240	244	3372	234
Grp Volume(v), veh/h	73	98	91	71	0	218	63	914	959	78	532	548
Grp Sat Flow(s),veh/h/ln	1163	1945	1585	1194	0	1730	1781	1777	1827	244	1777	1828
Q Serve(g_s), s	8.7	7.5	8.6	9.4	0.0	20.3	0.0	0.0	0.0	0.5	0.0	0.0
Cycle Q Clear(g_c), s	29.0	7.5	8.6	16.9	0.0	20.3	0.0	0.0	0.0	2.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.13	1.00		0.13
Lane Grp Cap(c), veh/h	102	332	270	194	0	295	808	2571	2643	376	2453	2524
V/C Ratio(X)	0.72	0.30	0.34	0.37	0.00	0.74	0.08	0.36	0.36	0.21	0.22	0.22
Avail Cap(c_a), veh/h	102	332	270	194	0	295	814	2571	2643	376	2453	2524
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	81.5	61.6	62.0	68.9	0.0	66.9	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	21.5	0.5	0.7	1.2	0.0	9.4	0.0	0.4	0.4	1.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.8	3.6	3.0	0.0	9.9	0.0	0.3	0.3	0.1	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.9	62.1	62.8	70.1	0.0	76.3	0.1	0.4	0.4	1.3	0.2	0.2
LnGrp LOS	F	E	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		262			289			1936			1158	
Approach Delay, s/veh		73.7			74.8			0.4			0.3	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.2	242.9		34.7		254.1		34.7
Change Period (Y+Rc), s	6.5	6.5		* 5.7		6.5		* 5.7
Max Green Setting (Gmax), s	5.3	118.7		* 27		130.5		* 29
Max Q Clear Time (g_c+I1), s	2.0	4.2		22.3		2.0		31.0
Green Ext Time (p_c), s	0.0	33.8		0.7		84.6		0.0

Intersection Summary	
HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	363	221	9	200	63	129	245	34	34	156	27
Future Volume (vph)	109	363	221	9	200	63	129	245	34	34	156	27
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.943			0.964			0.982			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1757	0	1770	1796	0	1770	1829	0	1770	1822	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1757	0	1770	1796	0	1770	1829	0	1770	1822	0
Adj. Flow (vph)	118	395	240	10	217	68	140	266	37	37	170	29
Lane Group Flow (vph)	118	635	0	10	285	0	140	303	0	37	199	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	84.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	109	363	221	9	200	63	129	245	34	34	156	27
Future Vol, veh/h	109	363	221	9	200	63	129	245	34	34	156	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	118	395	240	10	217	68	140	266	37	37	170	29
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	163	25.5	24.5	19
HCM LOS	F	D	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	88%	0%	62%	0%	76%	0%	85%
Vol Right, %	0%	12%	0%	38%	0%	24%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	279	109	584	9	263	34	183
LT Vol	129	0	109	0	9	0	34	0
Through Vol	0	245	0	363	0	200	0	156
RT Vol	0	34	0	221	0	63	0	27
Lane Flow Rate	140	303	118	635	10	286	37	199
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.335	0.676	0.277	1.344	0.024	0.643	0.093	0.469
Departure Headway (Hd)	9.399	8.789	8.413	7.624	9.446	8.749	9.959	9.327
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	386	415	430	482	381	415	362	390
Service Time	7.099	6.489	6.113	5.324	7.146	6.449	7.659	7.027
HCM Lane V/C Ratio	0.363	0.73	0.274	1.317	0.026	0.689	0.102	0.51
HCM Control Delay	16.8	28	14.3	190.7	12.4	25.9	13.7	20
HCM Lane LOS	C	D	B	F	B	D	B	C
HCM 95th-tile Q	1.4	4.8	1.1	28.6	0.1	4.4	0.3	2.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	304	94	25	193	33	85	207	20	25	168	19
Future Volume (vph)	28	304	94	25	193	33	85	207	20	25	168	19
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.982			0.991			0.988	
Flt Protected		0.997			0.995			0.987			0.994	
Satd. Flow (prot)	0	1801	0	0	1820	0	0	1822	0	0	1829	0
Flt Permitted		0.997			0.995			0.987			0.994	
Satd. Flow (perm)	0	1801	0	0	1820	0	0	1822	0	0	1829	0
Adj. Flow (vph)	30	330	102	27	210	36	92	225	22	27	183	21
Lane Group Flow (vph)	0	462	0	0	273	0	0	339	0	0	231	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 66.2%	ICU Level of Service C
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	27.4
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	304	94	25	193	33	85	207	20	25	168	19
Future Vol, veh/h	28	304	94	25	193	33	85	207	20	25	168	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	330	102	27	210	36	92	225	22	27	183	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	39.1	19.1	24.7	17.7
HCM LOS	E	C	C	C

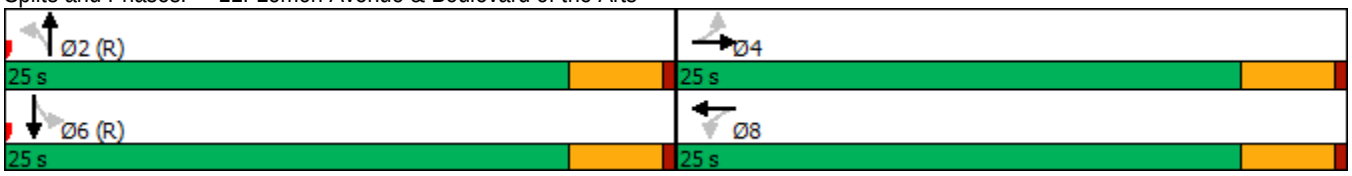
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	7%	10%	12%
Vol Thru, %	66%	71%	77%	79%
Vol Right, %	6%	22%	13%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	312	426	251	212
LT Vol	85	28	25	25
Through Vol	207	304	193	168
RT Vol	20	94	33	19
Lane Flow Rate	339	463	273	230
Geometry Grp	1	1	1	1
Degree of Util (X)	0.683	0.865	0.552	0.485
Departure Headway (Hd)	7.251	6.723	7.289	7.57
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	495	537	494	475
Service Time	5.325	4.789	5.37	5.655
HCM Lane V/C Ratio	0.685	0.862	0.553	0.484
HCM Control Delay	24.7	39.1	19.1	17.7
HCM Lane LOS	C	E	C	C
HCM 95th-tile Q	5.1	9.4	3.3	2.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	183	74	15	79	25	27	191	19	8	55	3
Future Volume (vph)	18	183	74	15	79	25	27	191	19	8	55	3
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.957			0.964			0.986			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1783	0	1770	1796	0	1770	1837	0	1770	1850	0
Flt Permitted	0.684			0.443			0.716			0.616		
Satd. Flow (perm)	1274	1783	0	825	1796	0	1334	1837	0	1147	1850	0
Satd. Flow (RTOR)		50			27			13			3	
Adj. Flow (vph)	20	199	80	16	86	27	29	208	21	9	60	3
Lane Group Flow (vph)	20	279	0	16	113	0	29	229	0	9	63	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	12.0	12.0		12.0	12.0		30.0	30.0		30.0	30.0	
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.60	0.60		0.60	0.60	
v/c Ratio	0.07	0.60		0.08	0.25		0.04	0.21		0.01	0.06	
Control Delay	12.7	18.4		12.3	11.1		5.9	6.0		6.0	5.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.7	18.4		12.3	11.1		5.9	6.0		6.0	5.6	
LOS	B	B		B	B		A	A		A	A	
Approach Delay		18.0			11.3			6.0			5.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	5	59		4	22		3	24		1	6	
Queue Length 95th (ft)	14	98		m9	m35		14	66		7	23	
Internal Link Dist (ft)		583			585			376			456	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	75			105			95			170		
Base Capacity (vph)	535	777		346	769		800	1106		687	1110	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.04	0.36		0.05	0.15		0.04	0.21		0.01	0.06	

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 32.0%	ICU Level of Service A
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 11: Lemon Avenue & Boulevard of the Arts



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	183	74	15	79	25	27	191	19	8	55	3
Future Volume (veh/h)	18	183	74	15	79	25	27	191	19	8	55	3
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	199	80	16	86	27	29	208	21	9	60	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	270	109	217	291	91	966	1048	106	805	1107	55
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	1280	1269	510	1100	1365	428	1339	1671	169	1152	1766	88
Grp Volume(v), veh/h	20	0	279	16	0	113	29	0	229	9	0	63
Grp Sat Flow(s),veh/h/ln	1280	0	1779	1100	0	1793	1339	0	1840	1152	0	1854
Q Serve(g_s), s	0.7	0.0	7.3	0.7	0.0	2.6	0.4	0.0	2.7	0.2	0.0	0.7
Cycle Q Clear(g_c), s	3.3	0.0	7.3	8.0	0.0	2.6	1.1	0.0	2.7	2.8	0.0	0.7
Prop In Lane	1.00		0.29	1.00		0.24	1.00		0.09	1.00		0.05
Lane Grp Cap(c), veh/h	349	0	379	217	0	382	966	0	1153	805	0	1163
V/C Ratio(X)	0.06	0.00	0.74	0.07	0.00	0.30	0.03	0.00	0.20	0.01	0.00	0.05
Avail Cap(c_a), veh/h	614	0	747	445	0	753	966	0	1153	805	0	1163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.93	0.00	0.93	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	18.4	22.1	0.0	16.5	3.8	0.0	4.0	4.6	0.0	3.6
Incr Delay (d2), s/veh	0.1	0.0	2.8	0.1	0.0	0.4	0.1	0.0	0.4	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	3.0	0.2	0.0	1.0	0.1	0.0	0.7	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	21.2	22.2	0.0	16.9	3.9	0.0	4.4	4.6	0.0	3.7
LnGrp LOS	B	A	C	C	A	B	A	A	A	A	A	A
Approach Vol, veh/h		299			129			258			72	
Approach Delay, s/veh		20.9			17.6			4.3			3.8	
Approach LOS		C			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.3		14.7		35.3		14.7				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		21.0		21.0		21.0		21.0				
Max Q Clear Time (g_c+I1), s		4.7		9.3		4.8		10.0				
Green Ext Time (p_c), s		1.2		1.4		0.2		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			13.1									
HCM 6th LOS			B									

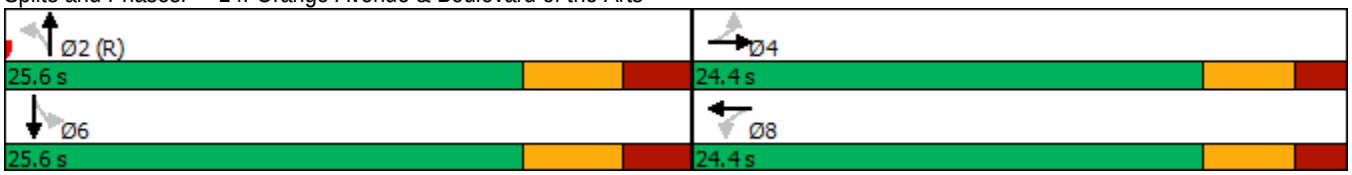
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	47	108	59	22	51	26	391	67	46	258	18
Future Volume (vph)	96	47	108	59	22	51	26	391	67	46	258	18
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.942			0.948			0.981			0.992	
Flt Protected		0.981			0.978			0.997			0.993	
Satd. Flow (prot)	0	1721	0	0	1727	0	0	1822	0	0	1835	0
Flt Permitted		0.841			0.742			0.969			0.880	
Satd. Flow (perm)	0	1476	0	0	1310	0	0	1771	0	0	1626	0
Satd. Flow (RTOR)		88			55			19			7	
Adj. Flow (vph)	104	51	117	64	24	55	28	425	73	50	280	20
Lane Group Flow (vph)	0	272	0	0	143	0	0	526	0	0	350	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	20.4	20.4		24.4	24.4		25.3	25.3		25.3	25.3	
Total Split (s)	24.4	24.4		24.4	24.4		25.6	25.6		25.6	25.6	
Total Split (%)	48.8%	48.8%		48.8%	48.8%		51.2%	51.2%		51.2%	51.2%	
Maximum Green (s)	19.0	19.0		19.0	19.0		19.3	19.3		19.3	19.3	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.4			5.4			6.3			6.3	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		C-Max	C-Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	8.0	8.0		12.0	12.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		12.4			12.4			25.9			25.9	
Actuated g/C Ratio		0.25			0.25			0.52			0.52	
v/c Ratio		0.63			0.39			0.57			0.41	
Control Delay		26.0			12.2			13.4			10.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		26.0			12.2			13.4			10.6	
LOS		C			B			B			B	
Approach Delay		26.0			12.3			13.4			10.6	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)		63			21			88			54	
Queue Length 95th (ft)		113			47			#260			139	
Internal Link Dist (ft)		585			361			367			327	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		615			531			927			846	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.44			0.27			0.57			0.41	

Intersection Summary

Cycle Length: 50
Actuated Cycle Length: 50
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 58.2% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Orange Avenue & Boulevard of the Arts



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	47	108	59	22	51	26	391	67	46	258	18
Future Volume (veh/h)	96	47	108	59	22	51	26	391	67	46	258	18
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	51	117	64	24	55	28	425	73	50	280	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	88	150	222	95	133	99	825	137	160	802	53
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	510	403	690	542	438	613	42	1503	249	141	1462	97
Grp Volume(v), veh/h	272	0	0	143	0	0	526	0	0	350	0	0
Grp Sat Flow(s),veh/h/ln	1603	0	0	1593	0	0	1795	0	0	1701	0	0
Q Serve(g_s), s	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.8	0.0	0.0	3.6	0.0	0.0	9.1	0.0	0.0	5.3	0.0	0.0
Prop In Lane	0.38		0.43	0.45		0.38	0.05		0.14	0.14		0.06
Lane Grp Cap(c), veh/h	448	0	0	451	0	0	1060	0	0	1015	0	0
V/C Ratio(X)	0.61	0.00	0.00	0.32	0.00	0.00	0.50	0.00	0.00	0.34	0.00	0.00
Avail Cap(c_a), veh/h	694	0	0	683	0	0	1060	0	0	1015	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)	0.79	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	0.0	0.0	16.7	0.0	0.0	7.2	0.0	0.0	6.3	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.4	0.0	0.0	1.7	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	1.3	0.0	0.0	3.0	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	0.0	0.0	17.1	0.0	0.0	8.8	0.0	0.0	7.2	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		272			143			526			350	
Approach Delay, s/veh		19.3			17.1			8.8			7.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.7		16.3		33.7		16.3				
Change Period (Y+Rc), s		* 6.3		5.4		* 6.3		5.4				
Max Green Setting (Gmax), s		* 19		19.0		* 19		19.0				
Max Q Clear Time (g_c+I1), s		11.1		9.8		7.3		5.6				
Green Ext Time (p_c), s		2.2		1.1		1.7		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	0.0
Intersection LOS	-

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	0	0	0
Demand Flow Rate, veh/h	0	0	0	0
Vehicles Circulating, veh/h	0	0	0	0
Vehicles Exiting, veh/h	0	0	0	0
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	0.0	0.0	0.0
Approach LOS	-	-	-	-

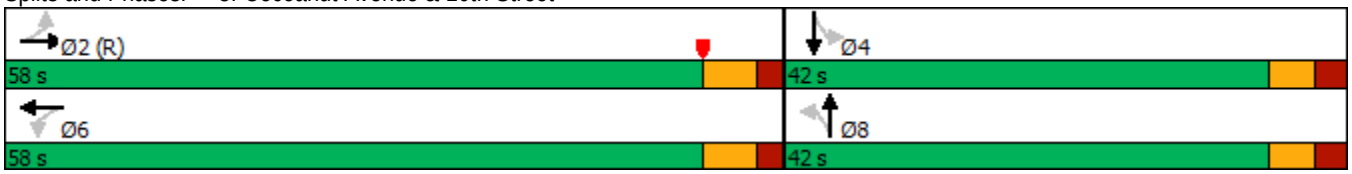
Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	R	LTR	R	LT	TR	LT	TR
Assumed Moves	LTR	R	LTR	R	LT	TR	LT	TR
RT Channelized								
Lane Util	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	0	0	0	0	0	0	0	0
Cap Entry Lane, veh/h	1350	1420	1350	1420	1350	1420	1350	1420
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Flow Entry, veh/h	0	0	0	0	0	0	0	0
Cap Entry, veh/h	1350	1420	1350	1420	1350	1420	1350	1420
V/C Ratio	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Control Delay, s/veh	2.7	2.5	2.7	2.5	2.7	2.5	2.7	2.5
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0	0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	415	79	117	441	61	51	37	45	94	82	107
Future Volume (vph)	11	415	79	117	441	61	51	37	45	94	82	107
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.976			0.982			0.954			0.949	
Flt Protected	0.950			0.950				0.981			0.984	
Satd. Flow (prot)	1770	1818	0	1770	1829	0	0	1743	0	0	1739	0
Flt Permitted	0.387			0.393				0.712			0.828	
Satd. Flow (perm)	721	1818	0	732	1829	0	0	1265	0	0	1464	0
Satd. Flow (RTOR)		14			10			29			34	
Adj. Flow (vph)	12	451	86	127	479	66	55	40	49	102	89	116
Lane Group Flow (vph)	12	537	0	127	545	0	0	144	0	0	307	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	24.1	24.1		24.1	24.1		24.0	24.0		24.0	24.0	
Total Split (s)	58.0	58.0		58.0	58.0		42.0	42.0		42.0	42.0	
Total Split (%)	58.0%	58.0%		58.0%	58.0%		42.0%	42.0%		42.0%	42.0%	
Maximum Green (s)	51.9	51.9		51.9	51.9		36.0	36.0		36.0	36.0	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	62.9	62.9		62.9	62.9			25.0			25.0	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.25			0.25	
v/c Ratio	0.03	0.47		0.28	0.47			0.43			0.79	
Control Delay	9.8	12.4		9.8	11.7			27.2			44.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	9.8	12.4		9.8	11.7			27.2			44.7	
LOS	A	B		A	B			C			D	
Approach Delay		12.4			11.3			27.2			44.7	
Approach LOS		B			B			C			D	
Queue Length 50th (ft)	3	160		33	240			61			164	
Queue Length 95th (ft)	12	304		81	370			104			232	
Internal Link Dist (ft)		265			585			747			600	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	120			150								
Base Capacity (vph)	453	1149		460	1154			473			548	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.03	0.47		0.28	0.47			0.30			0.56	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 40 (40%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 68.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Cocoanut Avenue & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	415	79	117	441	61	51	37	45	94	82	107
Future Volume (veh/h)	11	415	79	117	441	61	51	37	45	94	82	107
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	451	86	127	479	66	55	40	49	102	89	116
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	506	994	190	510	1048	144	143	106	103	154	118	136
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	862	1527	291	868	1609	222	411	464	451	465	518	597
Grp Volume(v), veh/h	12	0	537	127	0	545	144	0	0	307	0	0
Grp Sat Flow(s),veh/h/ln	862	0	1818	868	0	1830	1327	0	0	1581	0	0
Q Serve(g_s), s	0.7	0.0	14.6	8.5	0.0	14.8	0.0	0.0	0.0	9.7	0.0	0.0
Cycle Q Clear(g_c), s	15.5	0.0	14.6	23.1	0.0	14.8	8.8	0.0	0.0	18.5	0.0	0.0
Prop In Lane	1.00		0.16	1.00		0.12	0.38		0.34	0.33		0.38
Lane Grp Cap(c), veh/h	506	0	1184	510	0	1192	352	0	0	408	0	0
V/C Ratio(X)	0.02	0.00	0.45	0.25	0.00	0.46	0.41	0.00	0.00	0.75	0.00	0.00
Avail Cap(c_a), veh/h	506	0	1184	510	0	1192	544	0	0	612	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.83	0.00	0.83	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.5	0.0	8.6	14.4	0.0	8.7	32.9	0.0	0.0	36.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.3	1.0	0.0	1.1	1.1	0.0	0.0	4.0	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	0.1	0.0	5.4	1.7	0.0	5.4	3.1	0.0	0.0	7.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	0.0	9.9	15.3	0.0	9.7	34.0	0.0	0.0	40.8	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	C	A	A	D	A	A
Approach Vol, veh/h		549			672			144			307	
Approach Delay, s/veh		9.9			10.8			34.0			40.8	
Approach LOS		A			B			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		71.2		28.8		71.2		28.8				
Change Period (Y+Rc), s		6.1		6.0		6.1		6.0				
Max Green Setting (Gmax), s		51.9		36.0		51.9		36.0				
Max Q Clear Time (g_c+I1), s		17.5		20.5		25.1		10.8				
Green Ext Time (p_c), s		5.7		2.3		6.6		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			18.0									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	568	53	167	581	62	23	58	31	82	38	99
Future Volume (vph)	20	568	53	167	581	62	23	58	31	82	38	99
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.987			0.986			0.947			0.939	
Flt Protected	0.950			0.950			0.950				0.982	
Satd. Flow (prot)	1770	1839	0	1770	1837	0	1770	1764	0	0	1718	0
Flt Permitted	0.319			0.332			0.497				0.836	
Satd. Flow (perm)	594	1839	0	618	1837	0	926	1764	0	0	1462	0
Satd. Flow (RTOR)		9			10			26			41	
Adj. Flow (vph)	22	617	58	182	632	67	25	63	34	89	41	108
Lane Group Flow (vph)	22	675	0	182	699	0	25	97	0	0	238	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		24.0	24.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	24.1	24.1		30.1	30.1		23.7	23.7		23.7	23.7	
Total Split (s)	68.0	68.0		68.0	68.0		32.0	32.0		32.0	32.0	
Total Split (%)	68.0%	68.0%		68.0%	68.0%		32.0%	32.0%		32.0%	32.0%	
Maximum Green (s)	61.9	61.9		61.9	61.9		26.3	26.3		26.3	26.3	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.7	5.7			5.7	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	68.6	68.6		68.6	68.6		19.6	19.6			19.6	
Actuated g/C Ratio	0.69	0.69		0.69	0.69		0.20	0.20			0.20	
v/c Ratio	0.05	0.53		0.43	0.55		0.14	0.27			0.75	
Control Delay	6.7	8.5		9.4	8.7		32.3	25.2			45.2	
Queue Delay	0.0	0.1		0.0	0.1		0.0	0.0			0.0	
Total Delay	6.7	8.6		9.4	8.8		32.3	25.2			45.2	
LOS	A	A		A	A		C	C			D	
Approach Delay		8.5			8.9			26.6			45.2	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	3	117		55	235		13	38			119	
Queue Length 95th (ft)	m10	272		67	217		34	77			190	
Internal Link Dist (ft)		585			604			682			630	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	140			205			50					
Base Capacity (vph)	407	1265		424	1263		243	483			414	
Starvation Cap Reductn	0	68		0	82		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.05	0.56		0.43	0.59		0.10	0.20			0.57	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 23 (23%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 87.3%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 9: Central Avenue & 10th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	568	53	167	581	62	23	58	31	82	38	99
Future Volume (veh/h)	20	568	53	167	581	62	23	58	31	82	38	99
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	617	58	182	632	67	25	63	34	89	41	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	433	1144	108	591	1130	120	244	231	125	137	63	125
Arrive On Green	1.00	1.00	1.00	0.68	0.68	0.68	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	747	1684	158	764	1662	176	1239	1143	617	432	312	619
Grp Volume(v), veh/h	22	0	675	182	0	699	25	0	97	238	0	0
Grp Sat Flow(s),veh/h/ln	747	0	1842	764	0	1839	1239	0	1759	1363	0	0
Q Serve(g_s), s	0.9	0.0	0.0	10.0	0.0	19.7	0.0	0.0	4.7	12.6	0.0	0.0
Cycle Q Clear(g_c), s	20.5	0.0	0.0	10.0	0.0	19.7	2.6	0.0	4.7	17.2	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.10	1.00		0.35	0.37		0.45
Lane Grp Cap(c), veh/h	433	0	1252	591	0	1249	244	0	356	325	0	0
V/C Ratio(X)	0.05	0.00	0.54	0.31	0.00	0.56	0.10	0.00	0.27	0.73	0.00	0.00
Avail Cap(c_a), veh/h	433	0	1252	591	0	1249	319	0	463	416	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.00	0.88	0.88	0.00	0.88	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.0	0.0	0.0	6.7	0.0	8.3	32.9	0.0	33.7	39.2	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	1.5	1.2	0.0	1.6	0.3	0.0	0.6	5.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.5	1.6	0.0	7.1	0.5	0.0	2.0	6.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.2	0.0	1.5	7.9	0.0	9.9	33.1	0.0	34.2	45.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	C	D	A	A
Approach Vol, veh/h		697			881			122			238	
Approach Delay, s/veh		1.5			9.5			34.0			45.1	
Approach LOS		A			A			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		74.1		25.9		74.1		25.9				
Change Period (Y+Rc), s		6.1		* 5.7		6.1		* 5.7				
Max Green Setting (Gmax), s		61.9		* 26		61.9		* 26				
Max Q Clear Time (g_c+I1), s		22.5		19.2		21.7		6.7				
Green Ext Time (p_c), s		8.2		1.0		11.1		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

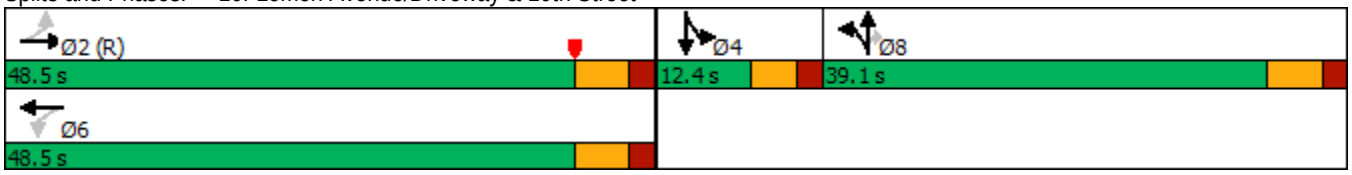
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	529	69	105	633	0	48	0	47	0	1	0
Future Volume (vph)	0	529	69	105	633	0	48	0	47	0	1	0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.984							0.850			
Flt Protected				0.950				0.950				
Satd. Flow (prot)	0	1833	0	1770	1863	0	0	1770	1583	0	1863	0
Flt Permitted				0.365				0.950				
Satd. Flow (perm)	0	1833	0	680	1863	0	0	1770	1583	0	1863	0
Satd. Flow (RTOR)		8							93			
Adj. Flow (vph)	0	575	75	114	688	0	52	0	51	0	1	0
Lane Group Flow (vph)	0	650	0	114	688	0	0	52	51	0	1	0
Turn Type		NA		Perm	NA		Split	NA	Perm		NA	
Protected Phases		2			6		8	8		4	4	
Permitted Phases	2			6					8			
Detector Phase	2	2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	35.1	35.1		28.1	28.1		39.1	39.1	39.1	12.4	12.4	
Total Split (s)	48.5	48.5		48.5	48.5		39.1	39.1	39.1	12.4	12.4	
Total Split (%)	48.5%	48.5%		48.5%	48.5%		39.1%	39.1%	39.1%	12.4%	12.4%	
Maximum Green (s)	42.4	42.4		42.4	42.4		33.0	33.0	33.0	7.0	7.0	
Yellow Time (s)	4.1	4.1		4.1	4.1		4.1	4.1	4.1	3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		6.1		6.1	6.1			6.1	6.1		5.4	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None	None	None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0			
Flash Dont Walk (s)	22.0	22.0		15.0	15.0		26.0	26.0	26.0			
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0			
Act Effct Green (s)		79.7		79.7	79.7			9.4	9.4		7.0	
Actuated g/C Ratio		0.80		0.80	0.80			0.09	0.09		0.07	
v/c Ratio		0.44		0.21	0.46			0.31	0.22		0.01	
Control Delay		7.5		5.9	6.7			46.5	4.1		43.0	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		7.5		5.9	6.7			46.5	4.1		43.0	
LOS		A		A	A			D	A		D	
Approach Delay		7.5			6.6			25.5			43.0	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)		147		15	118			32	0		1	
Queue Length 95th (ft)		280		60	337			67	9		6	
Internal Link Dist (ft)		604			575			678			183	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				90					270			
Base Capacity (vph)		1462		542	1485			584	584		130	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.44		0.21	0.46			0.09	0.09		0.01	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 8 (8%), Referenced to phase 2:EBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 8.2 — Intersection LOS: A
Intersection Capacity Utilization 89.9% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 10: Lemon Avenue/Driveway & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	529	69	105	633	0	48	0	47	0	1	0
Future Volume (veh/h)	0	529	69	105	633	0	48	0	47	0	1	0
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	575	75	114	688	0	52	0	51	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1226	160	663	1414	0	118	0	105	0	4	0
Arrive On Green	0.00	1.00	1.00	0.76	0.76	0.00	0.07	0.00	0.07	0.00	0.00	0.00
Sat Flow, veh/h	0	1621	211	782	1870	0	1781	0	1585	0	1870	0
Grp Volume(v), veh/h	0	0	650	114	688	0	52	0	51	0	1	0
Grp Sat Flow(s),veh/h/ln	0	0	1832	782	1870	0	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	4.2	14.2	0.0	2.8	0.0	3.1	0.0	0.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.2	14.2	0.0	2.8	0.0	3.1	0.0	0.1	0.0
Prop In Lane	0.00		0.12	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	1385	663	1414	0	118	0	105	0	4	0
V/C Ratio(X)	0.00	0.00	0.47	0.17	0.49	0.00	0.44	0.00	0.49	0.00	0.28	0.00
Avail Cap(c_a), veh/h	0	0	1385	663	1414	0	588	0	523	0	131	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.83	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	3.5	4.7	0.0	44.9	0.0	45.1	0.0	49.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.9	0.6	1.2	0.0	3.7	0.0	4.9	0.0	51.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.4	0.6	4.4	0.0	1.3	0.0	1.3	0.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.9	4.0	5.9	0.0	48.6	0.0	50.0	0.0	101.4	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	A	F	A
Approach Vol, veh/h		650			802			103			1	
Approach Delay, s/veh		0.9			5.6			49.3			101.4	
Approach LOS		A			A			D			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	81.7	5.6	81.7	12.7
Change Period (Y+Rc), s	6.1	5.4	6.1	6.1
Max Green Setting (Gmax), s	42.4	7.0	42.4	33.0
Max Q Clear Time (g_c+I1), s	2.0	2.1	16.2	5.1
Green Ext Time (p_c), s	7.6	0.0	8.5	0.6

Intersection Summary	
HCM 6th Ctrl Delay	6.6
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	364	60	72	335	114	82	78	48	27	161	54
Future Volume (vph)	216	364	60	72	335	114	82	78	48	27	161	54
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.987			0.970				0.850		0.970	
Flt Protected		0.983			0.993			0.975			0.995	
Satd. Flow (prot)	0	1807	0	0	1794	0	0	1816	1583	0	1798	0
Flt Permitted		0.983			0.993			0.975			0.995	
Satd. Flow (perm)	0	1807	0	0	1794	0	0	1816	1583	0	1798	0
Adj. Flow (vph)	235	396	65	78	364	124	89	85	52	29	175	59
Lane Group Flow (vph)	0	696	0	0	566	0	0	174	52	0	263	0
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Control Type: Roundabout	
Intersection Capacity Utilization 98.5%	ICU Level of Service F
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	696	566	226	263
Demand Flow Rate, veh/h	710	577	231	268
Vehicles Circulating, veh/h	288	418	674	542
Vehicles Exiting, veh/h	522	434	324	453
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	14.6	14.2	7.6	8.7
Approach LOS	B	B	A	A

Lane	Left	Left	Left	Bypass	Left
Designated Moves	LTR	LTR	LT	R	LTR
Assumed Moves	LTR	LTR	LT	R	LTR
RT Channelized				Yield	
Lane Util	1.000	1.000	1.000		1.000
Follow-Up Headway, s	2.609	2.609	2.609		2.609
Critical Headway, s	4.976	4.976	4.976	53	4.976
Entry Flow, veh/h	710	577	178	886	268
Cap Entry Lane, veh/h	1029	901	694	0.980	794
Entry HV Adj Factor	0.980	0.980	0.979	52	0.980
Flow Entry, veh/h	696	566	174	869	263
Cap Entry, veh/h	1008	883	679	0.060	778
V/C Ratio	0.690	0.640	0.257	4.7	0.338
Control Delay, s/veh	14.6	14.2	8.4	A	8.7
LOS	B	B	A	0	A
95th %tile Queue, veh	6	5	1		1

Intersection	
Intersection Delay, s/veh	0.0
Intersection LOS	-

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	0	0	0	0
Demand Flow Rate, veh/h	0	0	0	0
Vehicles Circulating, veh/h	0	0	0	0
Vehicles Exiting, veh/h	0	0	0	0
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	0.0	0.0	0.0
Approach LOS	-	-	-	-

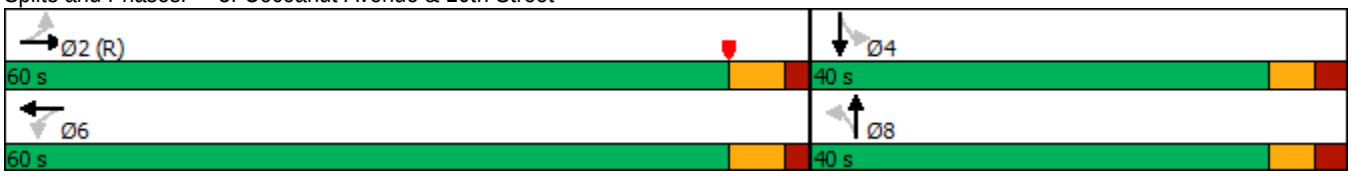
Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LTR	R	LTR	R	LT	TR	LT	TR
Assumed Moves	LTR	R	LTR	R	LT	TR	LT	TR
RT Channelized								
Lane Util	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	0	0	0	0	0	0	0	0
Cap Entry Lane, veh/h	1350	1420	1350	1420	1350	1420	1350	1420
Entry HV Adj Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Flow Entry, veh/h	0	0	0	0	0	0	0	0
Cap Entry, veh/h	1350	1420	1350	1420	1350	1420	1350	1420
V/C Ratio	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Control Delay, s/veh	2.7	2.5	2.7	2.5	2.7	2.5	2.7	2.5
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0	0	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	407	80	69	567	79	111	83	97	76	65	86
Future Volume (vph)	29	407	80	69	567	79	111	83	97	76	65	86
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.975			0.982			0.955			0.949	
Flt Protected	0.950			0.950				0.981			0.983	
Satd. Flow (prot)	1770	1816	0	1770	1829	0	0	1745	0	0	1738	0
Flt Permitted	0.272			0.388				0.722			0.727	
Satd. Flow (perm)	507	1816	0	723	1829	0	0	1284	0	0	1285	0
Satd. Flow (RTOR)		15			11			27			33	
Adj. Flow (vph)	32	442	87	75	616	86	121	90	105	83	71	93
Lane Group Flow (vph)	32	529	0	75	702	0	0	316	0	0	247	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	24.1	24.1		24.1	24.1		24.0	24.0		24.0	24.0	
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0		40.0	40.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	53.9	53.9		53.9	53.9		34.0	34.0		34.0	34.0	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.4	3.4		3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	60.5	60.5		60.5	60.5			27.4			27.4	
Actuated g/C Ratio	0.60	0.60		0.60	0.60			0.27			0.27	
v/c Ratio	0.10	0.48		0.17	0.63			0.85			0.66	
Control Delay	11.6	13.6		8.4	11.2			52.0			35.5	
Queue Delay	0.0	0.0		0.0	0.2			0.0			0.0	
Total Delay	11.6	13.6		8.4	11.5			52.0			35.5	
LOS	B	B		A	B			D			D	
Approach Delay		13.5			11.2			52.0			35.5	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	8	173		14	137			173			119	
Queue Length 95th (ft)	26	295		m26	243			262			189	
Internal Link Dist (ft)		265			585			747			600	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	120			150								
Base Capacity (vph)	306	1104		437	1111			454			458	
Starvation Cap Reductn	0	0		0	65			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.10	0.48		0.17	0.67			0.70			0.54	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 18.9 (19%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 21.8	Intersection LOS: C
Intersection Capacity Utilization 78.3%	ICU Level of Service D
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 3: Cocoanut Avenue & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	407	80	69	567	79	111	83	97	76	65	86
Future Volume (veh/h)	29	407	80	69	567	79	111	83	97	76	65	86
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	442	87	75	616	86	121	90	105	83	71	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	354	936	184	473	990	138	173	117	120	146	127	136
Arrive On Green	0.62	0.62	0.62	0.62	0.62	0.62	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	745	1518	299	874	1606	224	470	447	456	374	484	518
Grp Volume(v), veh/h	32	0	529	75	0	702	316	0	0	247	0	0
Grp Sat Flow(s),veh/h/ln	745	0	1817	874	0	1830	1373	0	0	1376	0	0
Q Serve(g_s), s	2.8	0.0	15.7	5.1	0.0	23.9	6.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	26.6	0.0	15.7	20.8	0.0	23.9	22.4	0.0	0.0	15.9	0.0	0.0
Prop In Lane	1.00		0.16	1.00		0.12	0.38		0.33	0.34		0.38
Lane Grp Cap(c), veh/h	354	0	1120	473	0	1129	410	0	0	409	0	0
V/C Ratio(X)	0.09	0.00	0.47	0.16	0.00	0.62	0.77	0.00	0.00	0.60	0.00	0.00
Avail Cap(c_a), veh/h	354	0	1120	473	0	1129	525	0	0	524	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.74	0.00	0.74	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.2	0.0	10.4	16.0	0.0	11.9	35.5	0.0	0.0	32.6	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	1.4	0.5	0.0	1.9	6.2	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	6.1	1.0	0.0	9.2	8.0	0.0	0.0	5.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	0.0	11.8	16.5	0.0	13.8	41.8	0.0	0.0	34.7	0.0	0.0
LnGrp LOS	C	A	B	B	A	B	D	A	A	C	A	A
Approach Vol, veh/h		561			777			316			247	
Approach Delay, s/veh		12.3			14.1			41.8			34.7	
Approach LOS		B			B			D			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		67.8		32.2		67.8		32.2				
Change Period (Y+Rc), s		6.1		6.0		6.1		6.0				
Max Green Setting (Gmax), s		53.9		34.0		53.9		34.0				
Max Q Clear Time (g_c+I1), s		28.6		17.9		25.9		24.4				
Green Ext Time (p_c), s		5.4		1.8		8.4		1.8				

Intersection Summary												
HCM 6th Ctrl Delay			20.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	549	55	66	696	74	68	107	65	62	31	73
Future Volume (vph)	22	549	55	66	696	74	68	107	65	62	31	73
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.986			0.986			0.943			0.941	
Flt Protected	0.950			0.950			0.950				0.982	
Satd. Flow (prot)	1770	1837	0	1770	1837	0	1770	1757	0	0	1721	0
Flt Permitted	0.257			0.353			0.547				0.618	
Satd. Flow (perm)	479	1837	0	658	1837	0	1019	1757	0	0	1083	0
Satd. Flow (RTOR)		10			11			29			37	
Adj. Flow (vph)	24	597	60	72	757	80	74	116	71	67	34	79
Lane Group Flow (vph)	24	657	0	72	837	0	74	187	0	0	180	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		24.0	24.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	24.1	24.1		30.1	30.1		23.7	23.7		23.7	23.7	
Total Split (s)	70.0	70.0		70.0	70.0		30.0	30.0		30.0	30.0	
Total Split (%)	70.0%	70.0%		70.0%	70.0%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	63.9	63.9		63.9	63.9		24.3	24.3		24.3	24.3	
Yellow Time (s)	4.1	4.1		4.1	4.1		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)	6.1	6.1		6.1	6.1		5.7	5.7			5.7	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	71.0	71.0		71.0	71.0		17.2	17.2			17.2	
Actuated g/C Ratio	0.71	0.71		0.71	0.71		0.17	0.17			0.17	
v/c Ratio	0.07	0.50		0.15	0.64		0.42	0.57			0.83	
Control Delay	4.7	6.3		8.8	16.4		42.6	37.9			60.3	
Queue Delay	0.0	0.1		0.0	0.7		0.0	0.0			0.0	
Total Delay	4.7	6.4		8.8	17.1		42.6	37.9			60.3	
LOS	A	A		A	B		D	D			E	
Approach Delay		6.3			16.4			39.3			60.3	
Approach LOS		A			B			D			E	
Queue Length 50th (ft)	3	141		19	334		42	93			89	
Queue Length 95th (ft)	m8	192		49	656		81	150			157	
Internal Link Dist (ft)		585			604			682			630	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	140			205			50					
Base Capacity (vph)	340	1307		466	1307		247	448			291	
Starvation Cap Reductn	0	79		0	192		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.07	0.54		0.15	0.75		0.30	0.42			0.62	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 23 (23%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 88.6%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 9: Central Avenue & 10th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	549	55	66	696	74	68	107	65	62	31	73
Future Volume (veh/h)	22	549	55	66	696	74	68	107	65	62	31	73
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	597	60	72	757	80	74	116	71	67	34	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	343	1138	114	600	1132	120	241	219	134	107	62	93
Arrive On Green	1.00	1.00	1.00	0.68	0.68	0.68	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	657	1672	168	777	1663	176	1280	1086	665	284	306	461
Grp Volume(v), veh/h	24	0	657	72	0	837	74	0	187	180	0	0
Grp Sat Flow(s),veh/h/ln	657	0	1840	777	0	1839	1280	0	1751	1051	0	0
Q Serve(g_s), s	1.5	0.0	0.0	3.3	0.0	26.7	0.0	0.0	9.5	8.1	0.0	0.0
Cycle Q Clear(g_c), s	28.2	0.0	0.0	3.3	0.0	26.7	8.4	0.0	9.5	17.6	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.10	1.00		0.38	0.37		0.44
Lane Grp Cap(c), veh/h	343	0	1252	600	0	1251	241	0	353	261	0	0
V/C Ratio(X)	0.07	0.00	0.52	0.12	0.00	0.67	0.31	0.00	0.53	0.69	0.00	0.00
Avail Cap(c_a), veh/h	343	0	1252	600	0	1251	294	0	425	321	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.00	0.87	0.89	0.00	0.89	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.5	0.0	0.0	5.6	0.0	9.4	35.2	0.0	35.7	39.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	1.4	0.4	0.0	2.5	1.0	0.0	1.8	5.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.5	0.5	0.0	9.7	1.6	0.0	4.2	4.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.9	0.0	1.4	6.0	0.0	11.9	36.3	0.0	37.4	45.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	B	D	A	D	D	A	A
Approach Vol, veh/h		681			909			261			180	
Approach Delay, s/veh		1.5			11.4			37.1			45.5	
Approach LOS		A			B			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		74.1		25.9		74.1		25.9				
Change Period (Y+Rc), s		6.1		* 5.7		6.1		* 5.7				
Max Green Setting (Gmax), s		63.9		* 24		63.9		* 24				
Max Q Clear Time (g_c+I1), s		30.2		19.6		28.7		11.5				
Green Ext Time (p_c), s		7.7		0.5		11.8		1.4				

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

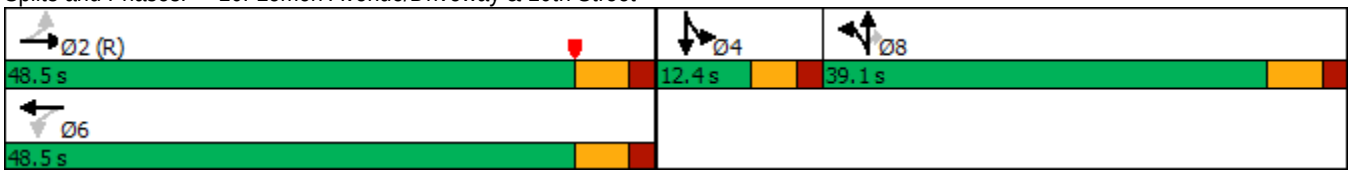
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	528	69	47	565	0	94	0	104	0	4	0
Future Volume (vph)	0	528	69	47	565	0	94	0	104	0	4	0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.984							0.850			
Flt Protected				0.950				0.950				
Satd. Flow (prot)	0	1833	0	1770	1863	0	0	1770	1583	0	1863	0
Flt Permitted				0.349				0.950				
Satd. Flow (perm)	0	1833	0	650	1863	0	0	1770	1583	0	1863	0
Satd. Flow (RTOR)		8							113			
Adj. Flow (vph)	0	574	75	51	614	0	102	0	113	0	4	0
Lane Group Flow (vph)	0	649	0	51	614	0	0	102	113	0	4	0
Turn Type		NA		Perm	NA		Split	NA	Perm		NA	
Protected Phases		2			6		8	8		4	4	
Permitted Phases	2			6					8			
Detector Phase	2	2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	35.1	35.1		28.1	28.1		39.1	39.1	39.1	12.4	12.4	
Total Split (s)	48.5	48.5		48.5	48.5		39.1	39.1	39.1	12.4	12.4	
Total Split (%)	48.5%	48.5%		48.5%	48.5%		39.1%	39.1%	39.1%	12.4%	12.4%	
Maximum Green (s)	42.4	42.4		42.4	42.4		33.0	33.0	33.0	7.0	7.0	
Yellow Time (s)	4.1	4.1		4.1	4.1		4.1	4.1	4.1	3.4	3.4	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		6.1		6.1	6.1			6.1	6.1		5.4	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Recall Mode	C-Max	C-Max		Max	Max		None	None	None	None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0			
Flash Dont Walk (s)	22.0	22.0		15.0	15.0		26.0	26.0	26.0			
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0			
Act Effct Green (s)		73.2		73.2	73.2			12.1	12.1		7.0	
Actuated g/C Ratio		0.73		0.73	0.73			0.12	0.12		0.07	
v/c Ratio		0.48		0.11	0.45			0.48	0.39		0.03	
Control Delay		10.3		6.6	8.0			47.6	11.5		44.0	
Queue Delay		0.0		0.0	0.1			0.0	0.0		0.0	
Total Delay		10.3		6.6	8.1			47.6	11.5		44.0	
LOS		B		A	A			D	B		D	
Approach Delay		10.3			8.0			28.6			44.0	
Approach LOS		B			A			C			D	
Queue Length 50th (ft)		164		7	117			62	0		2	
Queue Length 95th (ft)		342		32	321			109	47		13	
Internal Link Dist (ft)		604			575			678			183	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				90					270			
Base Capacity (vph)		1344		476	1364			584	598		130	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	79			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.48		0.11	0.48			0.17	0.19		0.03	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 89 (89%), Referenced to phase 2:EBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 11.9 — Intersection LOS: B
Intersection Capacity Utilization 61.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: Lemon Avenue/Driveway & 10th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	528	69	47	565	0	94	0	104	0	4	0
Future Volume (veh/h)	0	528	69	47	565	0	94	0	104	0	4	0
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	574	75	51	614	0	102	0	113	0	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1158	151	631	1337	0	181	0	161	0	14	0
Arrive On Green	0.00	1.00	1.00	0.71	0.71	0.00	0.10	0.00	0.10	0.00	0.01	0.00
Sat Flow, veh/h	0	1621	212	782	1870	0	1781	0	1585	0	1870	0
Grp Volume(v), veh/h	0	0	649	51	614	0	102	0	113	0	4	0
Grp Sat Flow(s),veh/h/ln	0	0	1832	782	1870	0	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	2.0	13.9	0.0	5.5	0.0	6.9	0.0	0.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.0	13.9	0.0	5.5	0.0	6.9	0.0	0.2	0.0
Prop In Lane	0.00		0.12	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	1310	631	1337	0	181	0	161	0	14	0
V/C Ratio(X)	0.00	0.00	0.50	0.08	0.46	0.00	0.56	0.00	0.70	0.00	0.29	0.00
Avail Cap(c_a), veh/h	0	0	1310	631	1337	0	588	0	523	0	131	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.86	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	4.4	6.1	0.0	42.8	0.0	43.4	0.0	49.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.2	0.3	1.1	0.0	3.8	0.0	7.6	0.0	15.7	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	0.0	0.0	0.4	0.3	4.8	0.0	2.6	0.0	3.0	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	1.2	4.6	7.2	0.0	46.6	0.0	51.0	0.0	65.1	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	A	E	A
Approach Vol, veh/h		649			665			215			4	
Approach Delay, s/veh		1.2			7.0			48.9			65.1	
Approach LOS		A			A			D			E	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		77.6		6.1		77.6		16.3				
Change Period (Y+Rc), s		6.1		5.4		6.1		6.1				
Max Green Setting (Gmax), s		42.4		7.0		42.4		33.0				
Max Q Clear Time (g_c+I1), s		2.0		2.2		15.9		8.9				
Green Ext Time (p_c), s		7.5		0.0		6.7		1.3				

Intersection Summary												
HCM 6th Ctrl Delay			10.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	425	331	53	61	277	95	143	202	129	35	119	42
Future Volume (vph)	425	331	53	61	277	95	143	202	129	35	119	42
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.970				0.850		0.971	
Flt Protected		0.974			0.993			0.980			0.991	
Satd. Flow (prot)	0	1798	0	0	1794	0	0	1825	1583	0	1792	0
Flt Permitted		0.974			0.993			0.980			0.991	
Satd. Flow (perm)	0	1798	0	0	1794	0	0	1825	1583	0	1792	0
Adj. Flow (vph)	462	360	58	66	301	103	155	220	140	38	129	46
Lane Group Flow (vph)	0	880	0	0	470	0	0	375	140	0	213	0
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Control Type: Roundabout	
Intersection Capacity Utilization 110.5%	ICU Level of Service H
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	22.0
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	880	470	515	213
Demand Flow Rate, veh/h	897	479	525	218
Vehicles Circulating, veh/h	238	853	877	532
Vehicles Exiting, veh/h	512	406	258	800
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	21.4	34.0	17.9	7.6
Approach LOS	C	D	C	A

Lane	Left	Left	Left	Bypass	Left
Designated Moves	LTR	LTR	LT	R	LTR
Assumed Moves	LTR	LTR	LT	R	LTR
RT Channelized				Yield	
Lane Util	1.000	1.000	1.000		1.000
Follow-Up Headway, s	2.609	2.609	2.609		2.609
Critical Headway, s	4.976	4.976	4.976	143	4.976
Entry Flow, veh/h	897	479	382	912	218
Cap Entry Lane, veh/h	1082	578	564	0.980	802
Entry HV Adj Factor	0.981	0.981	0.981	140	0.979
Flow Entry, veh/h	880	470	375	894	213
Cap Entry, veh/h	1062	567	553	0.157	785
V/C Ratio	0.829	0.829	0.677	5.6	0.272
Control Delay, s/veh	21.4	34.0	22.5	A	7.6
LOS	C	D	C	1	A
95th %tile Queue, veh	10	9	5		1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	90	84	65	110	90	58	1607	116	72	929	64
Future Volume (vph)	67	90	84	65	110	90	58	1607	116	72	929	64
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.928			0.933			0.990			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1959	0	1770	1738	0	1770	3504	0	1770	3504	0
Flt Permitted	0.266			0.287			0.219			0.095		
Satd. Flow (perm)	495	1959	0	535	1738	0	408	3504	0	177	3504	0
Satd. Flow (RTOR)		24			21			13			10	
Adj. Flow (vph)	73	98	91	71	120	98	63	1747	126	78	1010	70
Lane Group Flow (vph)	73	189	0	71	218	0	63	1873	0	78	1080	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		5.0	12.0		12.0	12.0	
Minimum Split (s)	20.0	20.0		21.7	21.7		11.5	22.5		22.5	22.5	
Total Split (s)	33.0	33.0		33.0	33.0		11.8	137.0		125.2	125.2	
Total Split (%)	19.4%	19.4%		19.4%	19.4%		6.9%	80.6%		73.6%	73.6%	
Maximum Green (s)	29.0	29.0		27.3	27.3		5.3	130.5		118.7	118.7	
Yellow Time (s)	3.5	3.5		3.5	3.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.5	0.5		2.2	2.2		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		5.7	5.7		6.5	6.5		6.5	6.5	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)	25.3	25.3		23.6	23.6		134.2	134.2		121.8	121.8	
Actuated g/C Ratio	0.15	0.15		0.14	0.14		0.79	0.79		0.72	0.72	
v/c Ratio	1.00	0.61		0.96	0.84		0.17	0.68		0.62	0.43	
Control Delay	173.5	66.8		165.3	90.8		5.4	10.0		38.6	10.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	173.5	66.8		165.3	90.8		5.4	10.0		38.6	10.7	
LOS	F	E		F	F		A	A		D	B	
Approach Delay		96.6			109.1			9.8			12.6	
Approach LOS		F			F			A			B	
Queue Length 50th (ft)	81	172		79	216		14	464		44	254	
Queue Length 95th (ft)	#189	259		#182	#315		28	553		#160	297	
Internal Link Dist (ft)		611			584			456			443	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				150			50			250		
Base Capacity (vph)	84	354		85	296		369	2768		126	2513	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.87	0.53		0.84	0.74		0.17	0.68		0.62	0.43	

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 24.8 Intersection LOS: C
Intersection Capacity Utilization 90.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: US 41 & Boulevard of the Arts

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	90	84	65	110	90	58	1607	116	72	929	64
Future Volume (veh/h)	67	90	84	65	110	90	58	1607	116	72	929	64
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	98	91	71	120	98	63	1747	126	78	1010	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	158	147	129	162	133	808	4867	347	376	4655	323
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.03	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1163	928	862	1194	952	778	1781	3364	240	244	3372	234
Grp Volume(v), veh/h	73	0	189	71	0	218	63	914	959	78	532	548
Grp Sat Flow(s),veh/h/ln	1163	0	1790	1194	0	1730	1781	1777	1827	244	1777	1828
Q Serve(g_s), s	8.7	0.0	16.6	10.0	0.0	20.3	0.0	0.0	0.0	0.5	0.0	0.0
Cycle Q Clear(g_c), s	29.0	0.0	16.6	26.6	0.0	20.3	0.0	0.0	0.0	2.2	0.0	0.0
Prop In Lane	1.00		0.48	1.00		0.45	1.00		0.13	1.00		0.13
Lane Grp Cap(c), veh/h	102	0	305	129	0	295	808	2571	2643	376	2453	2524
V/C Ratio(X)	0.72	0.00	0.62	0.55	0.00	0.74	0.08	0.36	0.36	0.21	0.22	0.22
Avail Cap(c_a), veh/h	102	0	305	129	0	295	814	2571	2643	376	2453	2524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	81.5	0.0	65.4	77.7	0.0	66.9	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	21.5	0.0	3.8	4.9	0.0	9.4	0.0	0.4	0.4	1.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	8.0	3.3	0.0	9.9	0.0	0.3	0.3	0.1	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.9	0.0	69.1	82.6	0.0	76.3	0.1	0.4	0.4	1.3	0.2	0.2
LnGrp LOS	F	A	E	F	A	E	A	A	A	A	A	A
Approach Vol, veh/h		262			289			1936			1158	
Approach Delay, s/veh		78.6			77.9			0.4			0.3	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.2	242.9		34.7		254.1		34.7
Change Period (Y+Rc), s	6.5	6.5		* 5.7		6.5		* 5.7
Max Green Setting (Gmax), s	5.3	118.7		* 27		130.5		* 29
Max Q Clear Time (g_c+I1), s	2.0	4.2		28.6		2.0		31.0
Green Ext Time (p_c), s	0.0	33.8		0.0		84.6		0.0

Intersection Summary		
HCM 6th Ctrl Delay		12.1
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	363	221	9	200	63	129	245	34	34	156	27
Future Volume (vph)	109	363	221	9	200	63	129	245	34	34	156	27
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.957			0.969			0.982			0.978	
Flt Protected		0.992			0.998		0.950			0.950		
Satd. Flow (prot)	0	1768	0	0	1801	0	1770	1829	0	1770	1822	0
Flt Permitted		0.992			0.998		0.950			0.950		
Satd. Flow (perm)	0	1768	0	0	1801	0	1770	1829	0	1770	1822	0
Adj. Flow (vph)	118	395	240	10	217	68	140	266	37	37	170	29
Lane Group Flow (vph)	0	753	0	0	295	0	140	303	0	37	199	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Intersection	
Intersection Delay, s/veh	122.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	109	363	221	9	200	63	129	245	34	34	156	27
Future Vol, veh/h	109	363	221	9	200	63	129	245	34	34	156	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	118	395	240	10	217	68	140	266	37	37	170	29
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	249.3	25.5	25.2	19.6
HCM LOS	F	D	D	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	16%	3%	100%	0%
Vol Thru, %	0%	88%	52%	74%	0%	85%
Vol Right, %	0%	12%	32%	23%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	279	693	272	34	183
LT Vol	129	0	109	9	34	0
Through Vol	0	245	363	200	0	156
RT Vol	0	34	221	63	0	27
Lane Flow Rate	140	303	753	296	37	199
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.335	0.675	1.487	0.63	0.093	0.467
Departure Headway (Hd)	9.773	9.159	7.106	8.737	10.353	9.717
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	370	397	512	417	348	374
Service Time	7.473	6.859	5.153	6.737	8.053	7.417
HCM Lane V/C Ratio	0.378	0.763	1.471	0.71	0.106	0.532
HCM Control Delay	17.3	28.9	249.3	25.5	14.1	20.6
HCM Lane LOS	C	D	F	D	B	C
HCM 95th-tile Q	1.4	4.8	38	4.2	0.3	2.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	304	94	25	193	33	85	207	20	25	168	19
Future Volume (vph)	28	304	94	25	193	33	85	207	20	25	168	19
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.982			0.991			0.988	
Flt Protected		0.997			0.995			0.987			0.994	
Satd. Flow (prot)	0	1801	0	0	1820	0	0	1822	0	0	1829	0
Flt Permitted		0.997			0.995			0.987			0.994	
Satd. Flow (perm)	0	1801	0	0	1820	0	0	1822	0	0	1829	0
Adj. Flow (vph)	30	330	102	27	210	36	92	225	22	27	183	21
Lane Group Flow (vph)	0	462	0	0	273	0	0	339	0	0	231	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 66.2%	ICU Level of Service C
Analysis Period (min) 15	

Intersection												
Int Delay, s/veh	70.1											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	304	94	25	193	33	85	207	20	25	168	19
Future Vol, veh/h	28	304	94	25	193	33	85	207	20	25	168	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	330	102	27	210	36	92	225	22	27	183	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	246	0	0	432	0	0	825	741	381	847	774	228
Stage 1	-	-	-	-	-	-	441	441	-	282	282	-
Stage 2	-	-	-	-	-	-	384	300	-	565	492	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1320	-	-	1128	-	-	292	344	666	282	329	811
Stage 1	-	-	-	-	-	-	595	577	-	725	678	-
Stage 2	-	-	-	-	-	-	639	666	-	510	548	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1320	-	-	1128	-	-	145	324	666	115	310	811
Mov Cap-2 Maneuver	-	-	-	-	-	-	145	324	-	115	310	-
Stage 1	-	-	-	-	-	-	577	560	-	703	659	-
Stage 2	-	-	-	-	-	-	438	647	-	286	532	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.8	225.4	63.5
HCM LOS			F	F

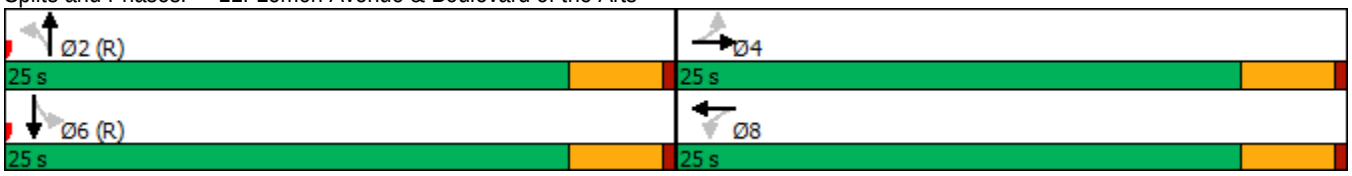
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	249	1320	-	-	1128	-	-	271
HCM Lane V/C Ratio	1.362	0.023	-	-	0.024	-	-	0.85
HCM Control Delay (s)	225.4	7.8	0	-	8.3	0	-	63.5
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	18.2	0.1	-	-	0.1	-	-	7.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	183	74	15	79	25	27	191	19	8	55	3
Future Volume (vph)	18	183	74	15	79	25	27	191	19	8	55	3
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.957			0.964			0.986			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1783	0	1770	1796	0	1770	1837	0	1770	1850	0
Flt Permitted	0.684			0.443			0.716			0.616		
Satd. Flow (perm)	1274	1783	0	825	1796	0	1334	1837	0	1147	1850	0
Satd. Flow (RTOR)		50			27			13			3	
Adj. Flow (vph)	20	199	80	16	86	27	29	208	21	9	60	3
Lane Group Flow (vph)	20	279	0	16	113	0	29	229	0	9	63	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	12.0	12.0		12.0	12.0		30.0	30.0		30.0	30.0	
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.60	0.60		0.60	0.60	
v/c Ratio	0.07	0.60		0.08	0.25		0.04	0.21		0.01	0.06	
Control Delay	12.7	18.4		12.3	11.1		5.9	6.0		6.0	5.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.7	18.4		12.3	11.1		5.9	6.0		6.0	5.6	
LOS	B	B		B	B		A	A		A	A	
Approach Delay		18.0			11.3			6.0			5.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	5	59		4	22		3	24		1	6	
Queue Length 95th (ft)	14	98		m9	m35		14	66		7	23	
Internal Link Dist (ft)		583			585			376			456	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	100			105			95			170		
Base Capacity (vph)	535	777		346	769		800	1106		687	1110	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.04	0.36		0.05	0.15		0.04	0.21		0.01	0.06	

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 32.0%	ICU Level of Service A
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 11: Lemon Avenue & Boulevard of the Arts



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	183	74	15	79	25	27	191	19	8	55	3
Future Volume (veh/h)	18	183	74	15	79	25	27	191	19	8	55	3
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	199	80	16	86	27	29	208	21	9	60	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	270	109	217	291	91	966	1048	106	805	1107	55
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	1280	1269	510	1100	1365	428	1339	1671	169	1152	1766	88
Grp Volume(v), veh/h	20	0	279	16	0	113	29	0	229	9	0	63
Grp Sat Flow(s),veh/h/ln	1280	0	1779	1100	0	1793	1339	0	1840	1152	0	1854
Q Serve(g_s), s	0.7	0.0	7.3	0.7	0.0	2.6	0.4	0.0	2.7	0.2	0.0	0.7
Cycle Q Clear(g_c), s	3.3	0.0	7.3	8.0	0.0	2.6	1.1	0.0	2.7	2.8	0.0	0.7
Prop In Lane	1.00		0.29	1.00		0.24	1.00		0.09	1.00		0.05
Lane Grp Cap(c), veh/h	349	0	379	217	0	382	966	0	1153	805	0	1163
V/C Ratio(X)	0.06	0.00	0.74	0.07	0.00	0.30	0.03	0.00	0.20	0.01	0.00	0.05
Avail Cap(c_a), veh/h	614	0	747	445	0	753	966	0	1153	805	0	1163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.93	0.00	0.93	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	18.4	22.1	0.0	16.5	3.8	0.0	4.0	4.6	0.0	3.6
Incr Delay (d2), s/veh	0.1	0.0	2.8	0.1	0.0	0.4	0.1	0.0	0.4	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	3.0	0.2	0.0	1.0	0.1	0.0	0.7	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	21.2	22.2	0.0	16.9	3.9	0.0	4.4	4.6	0.0	3.7
LnGrp LOS	B	A	C	C	A	B	A	A	A	A	A	A
Approach Vol, veh/h		299			129			258			72	
Approach Delay, s/veh		20.9			17.6			4.3			3.8	
Approach LOS		C			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.3		14.7		35.3		14.7				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		21.0		21.0		21.0		21.0				
Max Q Clear Time (g_c+I1), s		4.7		9.3		4.8		10.0				
Green Ext Time (p_c), s		1.2		1.4		0.2		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			13.1									
HCM 6th LOS			B									

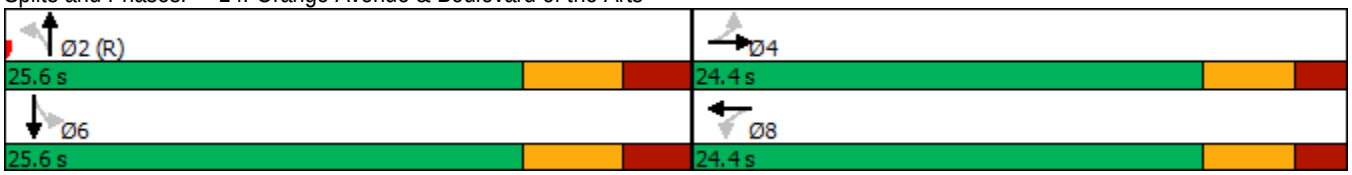
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	47	108	59	22	51	26	391	67	46	258	18
Future Volume (vph)	96	47	108	59	22	51	26	391	67	46	258	18
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.942			0.948			0.981			0.992	
Flt Protected		0.981			0.978			0.997			0.993	
Satd. Flow (prot)	0	1721	0	0	1727	0	0	1822	0	0	1835	0
Flt Permitted		0.841			0.742			0.969			0.880	
Satd. Flow (perm)	0	1476	0	0	1310	0	0	1771	0	0	1626	0
Satd. Flow (RTOR)		88			55			19			7	
Adj. Flow (vph)	104	51	117	64	24	55	28	425	73	50	280	20
Lane Group Flow (vph)	0	272	0	0	143	0	0	526	0	0	350	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	20.4	20.4		24.4	24.4		25.3	25.3		25.3	25.3	
Total Split (s)	24.4	24.4		24.4	24.4		25.6	25.6		25.6	25.6	
Total Split (%)	48.8%	48.8%		48.8%	48.8%		51.2%	51.2%		51.2%	51.2%	
Maximum Green (s)	19.0	19.0		19.0	19.0		19.3	19.3		19.3	19.3	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.7	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.6	2.6		2.6	2.6	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.4			5.4			6.3			6.3	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		C-Max	C-Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	8.0	8.0		12.0	12.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		12.4			12.4			25.9			25.9	
Actuated g/C Ratio		0.25			0.25			0.52			0.52	
v/c Ratio		0.63			0.39			0.57			0.41	
Control Delay		26.0			12.2			13.4			10.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		26.0			12.2			13.4			10.6	
LOS		C			B			B			B	
Approach Delay		26.0			12.3			13.4			10.6	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)		63			21			88			54	
Queue Length 95th (ft)		113			47			#260			139	
Internal Link Dist (ft)		585			361			367			327	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		615			531			927			846	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.44			0.27			0.57			0.41	

Intersection Summary

Cycle Length: 50
Actuated Cycle Length: 50
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 58.2% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Orange Avenue & Boulevard of the Arts



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	47	108	59	22	51	26	391	67	46	258	18
Future Volume (veh/h)	96	47	108	59	22	51	26	391	67	46	258	18
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	51	117	64	24	55	28	425	73	50	280	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	88	150	222	95	133	99	825	137	160	802	53
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	510	403	690	542	438	613	42	1503	249	141	1462	97
Grp Volume(v), veh/h	272	0	0	143	0	0	526	0	0	350	0	0
Grp Sat Flow(s),veh/h/ln	1603	0	0	1593	0	0	1795	0	0	1701	0	0
Q Serve(g_s), s	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.8	0.0	0.0	3.6	0.0	0.0	9.1	0.0	0.0	5.3	0.0	0.0
Prop In Lane	0.38		0.43	0.45		0.38	0.05		0.14	0.14		0.06
Lane Grp Cap(c), veh/h	448	0	0	451	0	0	1060	0	0	1015	0	0
V/C Ratio(X)	0.61	0.00	0.00	0.32	0.00	0.00	0.50	0.00	0.00	0.34	0.00	0.00
Avail Cap(c_a), veh/h	694	0	0	683	0	0	1060	0	0	1015	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)	0.79	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	0.0	0.0	16.7	0.0	0.0	7.2	0.0	0.0	6.3	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.4	0.0	0.0	1.7	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	1.3	0.0	0.0	3.0	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	0.0	0.0	17.1	0.0	0.0	8.8	0.0	0.0	7.2	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		272			143			526			350	
Approach Delay, s/veh		19.3			17.1			8.8			7.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.7		16.3		33.7		16.3				
Change Period (Y+Rc), s		* 6.3		5.4		* 6.3		5.4				
Max Green Setting (Gmax), s		* 19		19.0		* 19		19.0				
Max Q Clear Time (g_c+I1), s		11.1		9.8		7.3		5.6				
Green Ext Time (p_c), s		2.2		1.1		1.7		0.6				

Intersection Summary		
HCM 6th Ctrl Delay		11.5
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Appendix I:

Generalized Average Annual Daily Volumes

TABLE 1

Generalized **Annual Average Daily** Volumes for Florida's Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	16,800	17,700	**
4	Divided	*	37,900	39,800	**
6	Divided	*	58,400	59,900	**
8	Divided	*	78,800	80,100	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	7,300	14,800	15,600
4	Divided	*	14,500	32,400	33,800
6	Divided	*	23,300	50,000	50,900
8	Divided	*	32,000	67,300	68,100

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding two-directional volumes in this table by 0.6

BICYCLE MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	2,900	7,600	19,700
50-84%	2,100	6,700	19,700	>19,700
85-100%	9,300	19,700	>19,700	**

PEDESTRIAN MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	2,800	9,500
50-84%	*	1,600	8,700	15,800
85-100%	3,800	10,700	17,400	>19,700

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Core Urbanized

Lanes	B	C	D	E
4	47,600	66,400	83,200	87,300
6	70,100	97,800	123,600	131,200
8	92,200	128,900	164,200	174,700
10	115,300	158,900	203,600	218,600
12	136,500	192,400	246,200	272,900

Urbanized

Lanes	B	C	D	E
4	45,900	62,700	75,600	85,400
6	68,900	93,900	113,600	128,100
8	91,900	125,200	151,300	170,900
10	115,000	156,800	189,300	213,600

Freeway Adjustments

Auxiliary Lanes Present in Both Directions	Ramp Metering
+ 20,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
2	Undivided	11,700	18,000	24,200	32,600
4	Divided	36,300	52,600	66,200	75,300
6	Divided	54,600	78,800	99,400	113,100

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
2	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1]Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
https://www.fdot.gov/planning/systems/

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's Urbanized Areas[1]

January 2020

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	1,510	1,600	**
4	Divided	*	3,420	3,580	**
6	Divided	*	5,250	5,390	**
8	Divided	*	7,090	7,210	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	660	1,330	1,410
4	Divided	*	1,310	2,920	3,040
6	Divided	*	2,090	4,500	4,590
8	Divided	*	2,880	6,060	6,130

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding two-directional volumes in this table by 0.6

BICYCLE MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	260	680	1,770
50-84%	190	600	1,770	>1,770
85-100%	830	1,700	>1,770	**

PEDESTRIAN MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	250	850
50-84%	*	150	780	1,420
85-100%	340	960	1,560	>1,770

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Core Urbanized

Lanes	B	C	D	E
4	4,050	5,640	6,800	7,420
6	5,960	8,310	10,220	11,150
8	7,840	10,960	13,620	14,850
10	9,800	13,510	17,040	18,580
12	11,600	16,350	20,930	23,200

Urbanized

Lanes	B	C	D	E
4	4,130	5,640	7,070	7,690
6	6,200	8,450	10,510	11,530
8	8,270	11,270	13,960	15,380
10	10,350	14,110	17,310	19,220

Freeway Adjustments

Auxiliary Lanes Present in Both Directions	Ramp Metering
+ 1,800	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
2	Undivided	1,050	1,620	2,180	2,930
4	Divided	3,270	4,730	5,960	6,780
6	Divided	4,910	7,090	8,950	10,180

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
2	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1]Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
https://www.fdot.gov/planning/systems/