MCP Phase 2: Washington/Flower - Traffic Operations Analysis Report

Draft

Los Angeles County Metropolitan Transportation Authority

Mobility Concept Plan (MCP) Phase 2

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Jacobs

Fehr & Peers

MCP Phase 2: Washington/Flower - Traffic Operations Analysis Report

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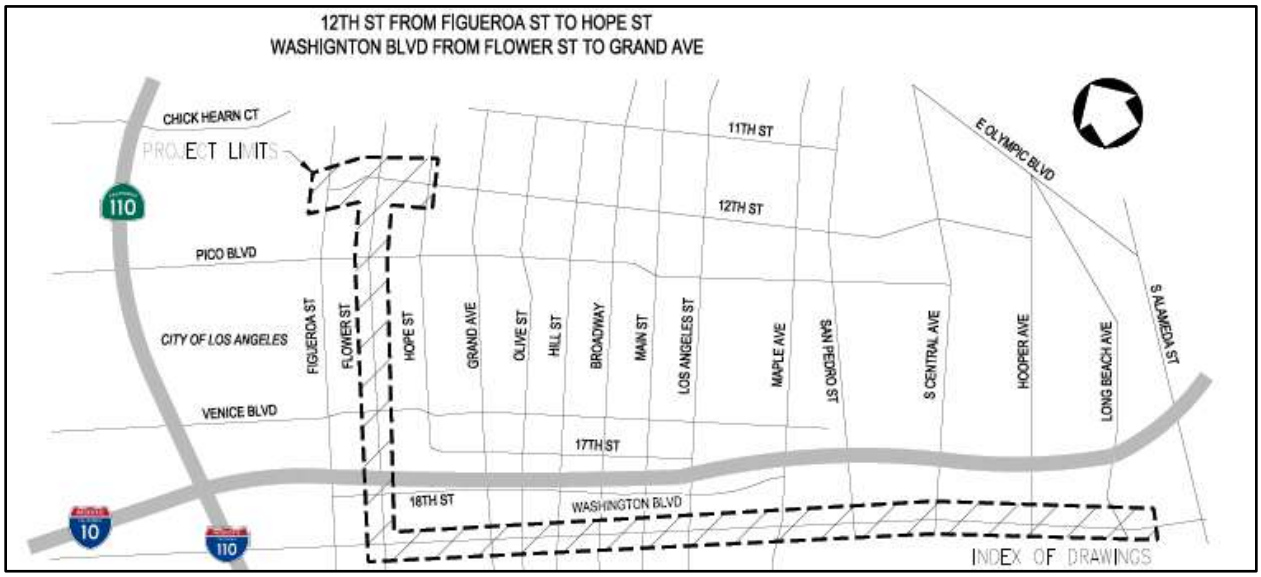
1. Introduction

Los Angeles County Metropolitan Transportation Authority (Metro) is the lead agency advancing improvements to the Washington/Flower Corridor through the 2028 Games Mobility Concept Plan, funded by the Reconnecting Communities and Neighborhoods (RCN) grant program in the City of Los Angeles. The project is intended to improve safety and light rail travel times on the Washington/Flower corridor.

The Washington/Flower Corridor Improvements project proposes streetscape and safety improvements and roadway reconfigurations along Washington Boulevard, Flower Street, and 12th Street in downtown Los Angeles, which is a key light rail corridor for the Metro A and E Lines. Figure 1 shows the location and limits of the proposed project.

Figure 1: Washington/Flower Corridor Improvements Project Area



For the purposes of this traffic operations analysis, the project would close Washington Boulevard to westbound vehicles at the intersection with Flower Street, with access maintained for emergency vehicles. This intersection reconfiguration would eliminate a conflict between vehicles and Metro light rail tracks where the A Line turns onto Flower Street. Westbound vehicles on Washington Boulevard west of Grand Avenue would be required to make a right turn onto Hope Street before reaching Flower Street, preserving access to commercial driveways on Pembroke Lane and on-street parking. At the intersection of Grand Avenue and Washington Boulevard, northbound left turns would be prohibited. Hope Street between Washington Boulevard and 18th Street would be converted from two-way to one-way northbound. Although not immediately adjacent to the Washington Boulevard closure, additional changes to the right-of-way on 12th Street are also included within the project extent, and have been considered in this analysis. A separate traffic operations analysis has been conducted previously to illustrate the static operational effects of the 12th Street changes. Figure 2 illustrates the concept plans.

Figure 2: Proposed Roadway Closure and Turn Restrictions - Washington/Flower Corridor Improvements Project

The purpose of this traffic operations analysis report is to document and present the traffic operations within the study area, with and without the proposed project. The traffic operations analysis assessed existing and future conditions to identify the potential traffic effects of the proposed changes to Washington Boulevard, Hope Street, and 12th Street.

This report is organized in the following sections:

- Section 1 includes the project overview, description of the analysis and the purpose of this document.
- Section 2 describes the traffic operations methodology and assumptions.
- Section 3 details the traffic analysis for existing conditions and for future without and with project scenarios.
- Section 4 presents the summary and conclusion.

2. Methodology and Assumptions

A Synchro analysis was conducted to understand the effects of increased vehicle volumes at key intersections due to diversion away from the project corridor, resulting from the westbound closure on Washington Boulevard.

2.1 Study Area

To define the study area, we conducted a preliminary StreetLight analysis of trips on westbound Washington Boulevard. At Washington Boulevard and Figueroa Street, approximately 55% of trips continue west along Washington Boulevard, 30% turn north toward downtown, and 15% turn south toward USC, Exposition Park, and South Central Los Angeles. Using this information and an understanding of the project's changes to intersection configurations, we selected the study intersections shown in Table 1 and Figure 2. Study intersections were selected based on expected likelihood of increased traffic volumes after project implementation as a result of diversion.

With the proposed prohibition of all westbound movements at Washington Boulevard/Flower Street and northbound left turns at Washington Boulevard/Grand Avenue, Olive Street is the nearest local access to parallel westbound surface street routes on 17th Street and 16th Street/Venice Boulevard.

Westbound I-10 is the clearest parallel alternate route for pass-through trips and for trips originating south or east of the project area with destinations in downtown Los Angeles. Therefore, two westbound off-ramps in the study area are included as possible recipients of increased traffic volumes. Two intersections on 23rd Street were also selected for possible local diversion.

For truck trips originating near the project area that would no longer be able to use westbound Washington as a truck route, intersections on Maple Avenue, Olive St, and17th Street are included to account for nearest westbound I-10 access.

Additionally, key intersections on potential diversion routes including Venice Boulevard and Adams Boulevard are included.

Because westbound through-traffic would be prohibited on Washington Boulevard at the Flower Street intersection, we can reasonably assume that traffic volumes on westbound Washington Boulevard approaching Flower Street will remain the same or be reduced as drivers select alternate parallel routes. Therefore, Washington Boulevard intersections approaching Flower Street from the west are not included in this study with the exception of Washington Boulevard/Olive Street, where an increase in westbound left and right turns off of Washington Boulevard are expected.

The Washington/Flower Corridor Improvements Project also proposes to convert Hope Street between Washington Boulevard and 18th Street from two-way to one-way northbound, preserving local access for the church and commercial properties with driveways on Hope Street. However, intersections on Hope Street were not included in this analysis because increased volumes on Hope Street are not anticipated after project implementation (following a possible adjustment period as local drivers adapt to the new configuration of westbound Washington Boulevard). Hope Street does not provide a viable path for drivers intending to continue westward, as it heads to a one-way eastbound street (18th Street) and then a one-way southbound intersection at Grand Avenue. Olive Street is the best available northbound turn to reach 17th Street or Venice Boulevard to continue west to points north of the closure; Grand Avenue is the best available southbound turn to reach 23rd Street to continue west to points south of the closure. Given this circuitous path that Hope Street offers, it is highly unlikely that GPS navigational programs would

recommend that drivers navigate in this manner. Figure 2 above shows these turning movements in further detail.

Finally, while the Washington/Flower Corridor Improvements project also proposes prohibition of eastbound through, southbound left, and northbound right vehicle movements at Flower Street/12th Street, this intersection reconfiguration is unlikely to affect diversion on Washington Boulevard and a prior traffic study has been conducted to study the effects of that intersection reconfiguration. Therefore, intersections in the vicinity of Flower Street/12th Street are not included in this study.

Table 1: Study Intersections

Intersection Number	North/South Street	East/West Street
1	Olive St	Washington Bl
2	Olive St	18th St
3	Olive St	17th St
4	I-110 NB Off-Ramp/I-10 WB Off-Ramp/LA Live Way	Bond St/Convention Center Dr
5	Los Angeles St	I-10 WB Off-Ramp/17th St
6	Grand Av	17th St/I-10 WB On-Ramp
7	Maple Ave	18th St/I-10 EB Off-Ramp
8	Maple Ave	Washington Bl
9	Flower St	Venice Bl
10	Grand Ave	23rd St
11	Flower St	23rd St
12	Figueroa St	Adams Bl

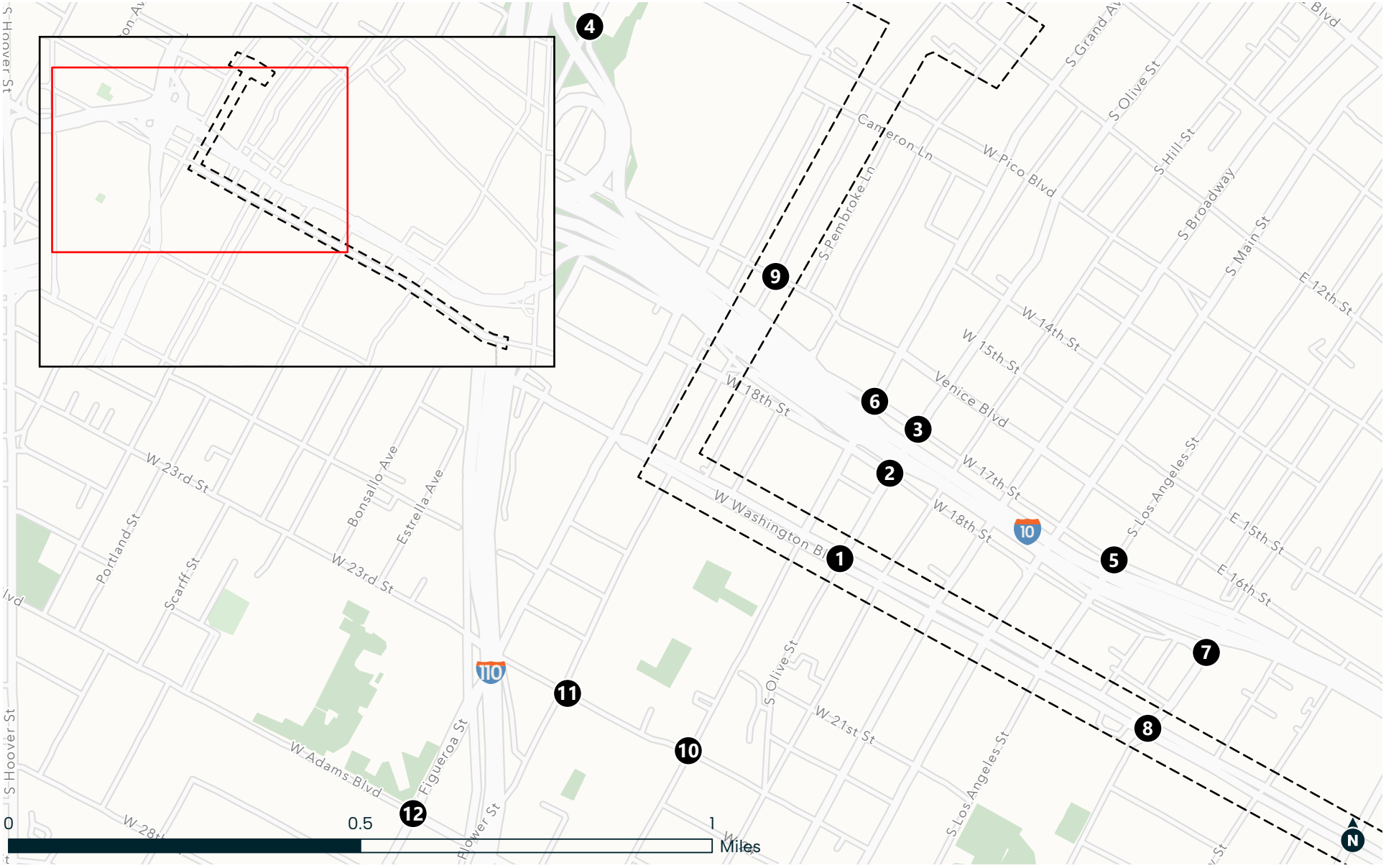


FIGURE 3

Study Intersections

Fehr & Peers

2.2 Analysis Scenarios & Level of Service Methodology

Weekday AM and PM peak hour analyses were conducted for the following scenarios:

- Existing (2025) Conditions
- Future (2028) No Project Conditions
- Future (2028) Plus Project Conditions

The following metrics are reported:

- Level of service (LOS) by approach and intersection
- Queueing by approach and intersection

Intersection operations analysis was conducted using the Synchro 12 software using methodology consistent with the Highway Capacity Manual (HCM) 7th Edition (TRB 2022). For some intersections, lane configuration or signal phasing preclude application of HCM 7th Edition methodology (such as clustered intersections, intersections with exclusive pedestrian or hold phases, or intersections with more than four approaches). For those intersections, HCM 2000 methodology was utilized for delay and LOS calculations (TRB 2000). The HCM methodology for signalized intersections estimates the average control delay for vehicles at the intersection. After the quantitative delay estimates are conducted, the methodology assigns a qualitative letter grade that represents the operations of the intersection. These grades range from LOS A (minimal delay) to LOS F (congested conditions). Descriptions of the LOS letter grades for signalized intersections are provided in Table 2.

Further details on the traffic operations analysis methodology area available in the Washington/Flower – Traffic Analysis Methodology Memo dated October 27, 2025.

Table 2: Intersection Level of Service Thresholds for Signalized Intersections

Level of Service	Description	Delay (seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	≤ 10
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10 to 20
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20 to 35
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high Volume / Capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35 to 55
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55 to 80
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80

2.2.1 Existing Conditions (2025) Scenario

Turning movement counts (TMC) were collected on November 4 and 5, 2025 at 11 of the 12 study intersections. At the 12th study intersection (Olive Street/18th Street), count collection equipment was stolen. In place of manual counts, 2025 TMC estimates were extracted from StreetLight[1] using Fehr & Peers' existing StreetLight access via the SCAG public-agency partnership subscription and balanced against the counts successfully collected at the two adjacent intersections (Olive Street/Washington Boulevard and Olive Street/17th Street) to maintain consistency. Current signal timing charts were provided by LADOT.

2.2.2 Future (2028) No Project Scenario

To estimate the traffic volumes used in the Future No Project scenario, an annual ambient growth rate of 1.47% was applied to existing (2025) traffic volumes to account for projected increases in travel at study intersections. The Future year of 2028 was used based on anticipated project implementation. The annual ambient growth rate was estimated by comparing vehicle volumes in the City of Los Angeles Travel Demand Model (Model) during the AM and PM peak periods for the Model's baseline scenario (2016) and horizon scenario (2040). The volumes from the 2040 scenario were compared with the baseline volumes to obtain a total percentage growth. This percentage growth was then divided by the number of intervening years to yield an annual ambient growth rate. The annual ambient growth rate was applied to the 2025 counts to arrive at the volumes used in the Future No Project scenario.

2.2.3 Future (2028) Plus Project Scenario

For the Future Plus Project scenario, the Future No Project volumes were adjusted to account for vehicle diversion to nearby routes after project implementation due to the planned prohibitions of all westbound vehicle movements at Flower Street/Washington Boulevard, northbound lefts at Grand Avenue/Washington Boulevard, and all southbound vehicle movements at Hope Street/Washington Boulevard and Hope Street/18th Street. Diversion estimates were informed by both the City of LA Travel Demand Model and StreetLight analyses. Post-processed Model outputs were used to estimate diversion rates.

The Model was used to understand the effect of the proposed roadway closure on route selection. The Model incorporates roadway features including number of lanes and considers travel time in assigning trips to different transportation modes and specific vehicle travel routes. The Model roadway links were modified to calculate the estimated rate of vehicle diversion away from Washington Boulevard as a result of the proposed project. The 12th Street closure proposed by the Washington/Flower Corridor Improvements project was also included in the Model analysis to account for the full project implementation.

StreetLight origin/destination (OD) data was compared against the Model outputs to ensure alignment. The percentage change in diversion volumes from the Model-based analysis was consistent with OD patterns for existing trips on westbound Washington Boulevard.

[1] StreetLight applies proprietary algorithms to measure travel patterns and provide analyses for a wide variety of transportation analyses including volume, counts, and Origin-Destination (O-D) data. StreetLight turning movement count (TMC) volumes are estimated using their proprietary CVD+ methodology, which combines anonymized Connected Vehicle Data (CVD) with supplementary data sources to improve accuracy and coverage.

Because Washington Boulevard is a designated truck route, adjustments were made to the "Heavy Vehicle %" input field in Synchro at the Maple Avenue/Washington Boulevard and Maple Avenue/18th Street intersections to account for a possible increase in truck trips originating near the study area that may use Maple Avenue to reach the I-10 westbound on-ramp between 18th Street and 16th Street as an alternate to westbound Washington Boulevard. As travel patterns on eastbound Washington Boulevard will not be modified, no eastbound truck diversion was assumed.

The outcome of these analyses provided an estimate of how to assign trips diverted from westbound Washington Boulevard due to the proposed closure to the study intersections. A unique percentage change in estimated vehicle volume was applied to specific turning movements at each study intersection to arrive at the Future Plus Project volumes to be used in Synchro analysis.

Signal timing splits and offsets were not optimized in the Plus Project scenario and were held as constant from the Existing and No Project scenarios.

Turning movement volumes for each study intersection in the three analysis scenarios are detailed in Appendix C.

3. Analysis Results

This section provides a summary of the traffic operations analysis and compares the Future (2028) No Project and Plus Project scenarios. The analysis is focused on two different metrics, as described in Section 2.2, to evaluate the project traffic operational effects. This section is organized by these metrics. Appendix D includes LOS/delay and queueing worksheets.

3.1 Intersection Delay and Level of Service

Delay and LOS analysis was conducted at the study intersections using Synchro 12 software, following the approach and assumptions detailed in Section 2 and the Washington/Flower – Traffic Analysis Methodology Memo dated October 27, 2025. Table 3 presents the existing conditions intersection delay and LOS for each peak hour. All intersections operate at LOS D or better during both AM and PM peak hours.

Table 3: Existing Conditions (2025) Delay and Level of Service

#	Intersection	Existing Conditions (2025)			
		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Olive St & Washington Bl	27.8	C	24.4	C
2	Olive St & 18th St	21.8	C	22.6	C
3	Olive St & 17th St	33.1	C	31.0	C
4	I-110 NB Off-Ramp/I-10 WB Off-Ramp/LA Live Way & Bond St/Convention Center Dr	3.6	A	2.8	A
5	Los Angeles St & I-10 WB Off-Ramp/17th St	17.0	B	19.0	B
6	Grand Ave & 17th St/I-10 WB On-Ramp	25.0	C	31.1	C
7	Maple Ave & 18th St/I-10 EB Off-Ramp	17.8	B	12.9	B
8	Maple Ave & Washington Bl	27.8	C	26.1	C
9	Flower St & Venice Bl	25.6	C	27.4	C
10	Grand Ave & 23rd St	13.7	B	12.4	B
11	Flower St & 23rd St	43.4	D	26.3	C
12	Figueroa St & Adams Bl	45.0	D	44.8	D

Table 4 presents the resulting intersection delay and LOS during the AM and PM peak hours at each study intersection for the Future (2028) No Project and Plus Project scenarios. A summary of the key findings of the analysis is as follows:

- In the Future (2028) No Project scenario, all intersections would operate at LOS D or better during AM and PM peak hours.

- In the Future (2028) Plus Project scenario, one intersection would operate at LOS E during the AM peak hour. All other intersections operate at LOS D or better during the AM and PM peak hours.

Table 4: Future (2028) Delay and Level of Service

#	Intersection	Metric	Future (2028) No Project		Future (2028) Plus Project	
			AM	PM	AM	PM
1	Olive St & Washington Bl	Delay	28.9	25.7	33.1	28.8
		LOS	C	C	C	C
2	Olive St & 18th St	Delay	22.0	22.7	21.9	22.6
		LOS	C	C	C	C
3	Olive St & 17th St	Delay	34.1	32.0	34.5	32.8
		LOS	C	C	C	C
4	I-110 NB Off-Ramp/I-10 WB Off-Ramp/LA Live Way & Bond St/Convention Center Dr	Delay	5.1	2.9	5.2	2.9
		LOS	A	A	A	A
5	Los Angeles St & I-10 WB Off-Ramp/17th St	Delay	17.5	19.6	17.4*	19.8
		LOS	B	B	B	B
6	Grand Ave & 17th St/I-10 WB On-Ramp	Delay	25.5	37.5	26.0	38.2
		LOS	C	D	C	D
7	Maple Ave & 18th St/I-10 EB Off-Ramp	Delay	18.1	13.2	18.2	13.5
		LOS	B	B	B	B
8	Maple Ave & Washington Bl	Delay	29.7	27.5	30.3	27.5
		LOS	C	C	C	C
9	Flower St & Venice Bl	Delay	26.3	28.6	28.2	33.7
		LOS	C	C	C	C
10	Grand Ave & 23rd St	Delay	15.2	13.0	17.5	13.6
		LOS	B	B	B	B
11	Flower St & 23rd St	Delay	46.5	30.3	63.8	36.5
		LOS	D	C	E	D
12	Figueroa St & Adams Bl	Delay	48.4	47.7	54.5	49.7
		LOS	D	D	D	D

*Negative change in delay is due to additional volume for a low-delay movement, which affects the weighted average calculation for intersection delay.

3.2 95th Percentile Queues

Table 5 is a comparison of the Existing (2025) Conditions 95th percentile queues (queues occurring one of every 20 cycles) to the current available storage lengths for each intersection approach. The table includes the number of vehicles that extend beyond the upstream intersection (excess vehicles).

In the AM peak hour, at least one approach at six of twelve study intersections exceeds the available storage. In the PM peak hour, at least one approach at seven of twelve study intersections exceeds its available storage.

Table 5: Existing (2025) Conditions Intersection 95th Percentile Queues

#	Intersection	Approach	Movement	Existing Conditions (2025) 95th Percentile Queue				
				Movement Queue (ft)			Excess Vehicles	
				Available Storage	AM	PM	AM	PM
1	Olive St & Washington Bl	Eastbound	Left	100	**175**	150	3	2
			Through	150	225	325	3	7
		Westbound	Left	100	125	100	1	-
			Through	150	300	300	6	6
		Northbound	Through	1350	250	200	-	-
2	Olive St & 18th St	Eastbound	Left	175	350	275	7	4
			Through	175	350	325	7	6
		Northbound	Through	475	150	125	-	-
			Right	475	25	25	-	-
3	Olive St & 17th St	Westbound	Through	200	250	325	2	5
		Northbound	Through	225	375	175	6	-
4	I-110 NB Off-Ramp/ I-10 WB Off-Ramp/LA Live Way & Bond St/ Convention Center Dr	Eastbound	Through	550	25	0	-	-
		Westbound	Through	100	25	25	-	-
			Right	100	25	25	-	-
		Northbound	Through	300	125	0	-	-
5	Los Angeles St & I-10 WB Off-Ramp/ 17th St	Westbound	Through	250	125	225	-	-
		Northbound	Left	25	50	25	-	-
			Through	200	125	50	-	-
		Southbound	Through	225	125	225	-	-
6	Grand Ave & 17th St/ I-10 WB On-Ramp	Westbound	Through	200	100	150	-	-
		Southbound	Through	250	50	150	-	-
			Right	250	150	600	-	14
7	Maple Ave & 18th St/ I-10 EB Off-Ramp	Eastbound	Left	350	175	75	-	-
			Right	175	75	50	-	-
		Northbound	Through	450	275	250	-	-
		Southbound	Through	150	25	75	-	-

#	Intersection	Approach	Movement	Existing Conditions (2025) 95th Percentile Queue				
				Movement Queue (ft)			Excess Vehicles	
				Available Storage	AM	PM	AM	PM
8	Maple Ave & Washington Bl	Eastbound	Left	75	50	50	-	-
			Through	575	125	150	-	-
		Westbound	Left	75	100	100	1	1
			Through	650	375	375	-	-
		Northbound	Left	50	100	125	2	3
			Through	300	400	275	4	-
			Right	50	25	0	-	-
		Southbound	Left	25	125	100	4	3
			Through	450	250	325	-	-
			Right	50	0	50	-	-
9	Flower St & Venice Bl	Eastbound	Through	300	225	325	-	1
		Westbound	Through	300	150	175	-	-
			Left	100	50	75	-	-
		Southbound	Through	1175	150	525	-	-
			Right	100	25	50	-	-
10	Grand Ave & 23rd St	Eastbound	Left	100	75	50	-	-
			Through	700	125	125	-	-
			Right	50	50	50	-	-
		Westbound	Through	375	150	125	-	-
		Northbound	Left	75	75	50	-	-
			Through	250	200	175	-	-
			Right	75	50	25	-	-
		Southbound	Left	100	50	50	-	-
			Through	450	125	225	-	-
			Right	75	25	25	-	-
11	Flower St & 23rd St	Eastbound	Through	325	400	425	3	4
		Westbound	Left	25	50	75	1	2
			Through	700	275	225	-	-
		Southbound	Left	100	50	100	-	-
			Through	525	50	225	-	-
			Right	100	25	25	-	-
12	Figueroa St & Adams Bl	Eastbound	Left	175	275	125	4	-
			Through	1575	275	335	-	-
		Westbound	Left	100	100	125	-	1
			Through	250	450	375	8	5

#	Intersection	Approach	Movement	Existing Conditions (2025) 95th Percentile Queue				
				Movement Queue (ft)			Excess Vehicles	
				Available Storage	AM	PM	AM	PM
			Right	250	275	200	1	-
		Northbound	Left	100	150	250	2	4
			Through	750	475	450	-	-
			Right	100	50	75	-	-
		Southbound	Left	175	250	200	3	1
			Through	950	375	400	-	-
			Right	175	175	100	-	-

Table 6 presents the resulting 95th percentile queues during the AM and PM peak hours at each study intersection for the Future (2028) No Project and Plus Project scenarios. A summary of the analysis is as follows:

- In the Future (2028) No Project scenario for the AM peak hour, at least one approach at seven of twelve study intersections is expected to exceed its available storage. In the PM peak hour, at least one approach at nine of twelve study intersections is expected to exceed its available storage.
- In the Future (2028) Plus Project scenario for the AM peak hour, at least one approach at seven of twelve study intersections is expected to exceed its available storage. In the PM peak hour, at least one approach at nine of twelve study intersections is expected to exceed its available storage.
- There are no new intersections that are expected to have queues exceeding available storage in the Plus Project scenario as compared to the No Project scenario. At intersections with excess queueing in the No Project scenario, queues in the Plus Project scenario largely remain at the same length or increase slightly.

Table 6: Future (2028) Intersection 95th Percentile Queues

#	Intersection	Approach	Movement	Future (2028) No Project 95th Percentile Queue					Future (2028) Plus Project 95th Percentile Queue				
				Movement Queue (ft)			Excess Vehicles		Movement Queue (ft)			Excess Vehicles	
				Available Storage	AM	PM	AM	PM	Available Storage	AM	PM	AM	PM
1	Olive St & Washington Bl	Eastbound	Left	100	200	175	4	3	100	175	175	3	3
			Through	150	250	350	4	8	150	250	350	4	8
		Westbound	Left	100	125	100	1	-	100	200	150	4	2
			Through	150	325	325	7	7	150	100	75	-	-
		Northbound	Through	1350	250	225	-	-	1350	250	225	-	-
2	Olive St & 18th St	Eastbound	Left	175	400	325	9	6	175	375	325	8	6
			Through	175	400	350	9	5	175	375	350	8	5
		Northbound	Through	475	150	150	-	-	475	150	150	-	-
			Right	475	25	25	-	-	475	25	25	-	-
3	Olive St & 17th St	Westbound	Through	200	250	350	2	4	200	275	375	3	5
		Northbound	Through	225	400	200	9	-	225	400	175	9	-
4	I-110 NB Off-Ramp/ I-10 WB Off-Ramp/LA Live Way & Bond St/Convention Center Dr	Eastbound	Through	550	25	0	-	-	550	25	0	-	-
		Westbound	Through	100	25	25	-	-	100	25	25	-	-
			Right	100	25	25	-	-	100	25	25	-	-
		Northbound	Through	300	150	75	-	-	300	150	75	-	-
5	Los Angeles St & I-10 WB Off-Ramp/17th St	Westbound	Through	250	150	250	-	-	250	150	275	-	1
		Northbound	Left	25	50	25	1	-	25	50	25	1	-
			Through	200	125	75	-	-	200	125	50	-	-
		Southbound	Through	225	125	250	-	1	225	125	250	-	1
6	Grand Ave & 17th St/ I-10 WB On-Ramp	Westbound	Through	200	100	150	-	-	200	100	175	-	-
		Southbound	Through	250	50	150	-	-	250	50	150	-	-
			Right	250	175	650	-	16	250	175	625	-	15

#	Intersection	Approach	Movement	Future (2028) No Project 95th Percentile Queue					Future (2028) Plus Project 95th Percentile Queue				
				Movement Queue (ft)			Excess Vehicles		Movement Queue (ft)			Excess Vehicles	
				Available Storage	AM	PM	AM	PM	Available Storage	AM	PM	AM	PM
7	Maple Ave & 18th St/ I-10 EB Off-Ramp	Eastbound	Left	350	175	100	-	-	350	175	75	-	-
			Right	175	75	50	-	-	175	75	50	-	-
		Northbound	Through	450	300	275	-	-	450	300	300	-	-
		Southbound	Through	150	25	75	-	-	150	25	75	-	-
8	Maple Ave & Washington Bl	Eastbound	Left	75	75	75	-	-	75	75	75	-	-
			Through	575	150	150	-	-	575	150	150	-	-
		Westbound	Left	75	100	100	1	1	75	100	100	1	1
			Through	650	425	400	-	-	650	400	325	-	-
		Northbound	Left	50	100	150	2	4	50	100	150	2	4
			Through	300	450	275	6	-	300	450	275	6	-
			Right	50	25	0	-	-	50	25	0	-	-
		Southbound	Left	25	150	100	5	3	25	150	100	5	3
			Through	450	275	350	-	-	450	275	325	-	-
			Right	50	0	50	-	-	50	0	50	-	-
9	Flower St & Venice Bl	Eastbound	Through	300	225	350	-	2	300	250	350	-	2
		Westbound	Through	300	175	175	-	-	300	250	300	-	-
		Southbound	Left	100	75	75	-	-	100	75	75	-	-
			Through	1175	175	550	-	-	1175	200	700	-	-
			Right	100	25	50	-	-	100	25	50	-	-
10	Grand Ave & 23rd St	Eastbound	Left	100	75	50	-	-	100	75	50	-	-
			Through	700	125	150	-	-	700	125	150	-	-
			Right	50	50	50	-	-	50	50	50	-	-
		Westbound	Through	375	200	125	-	-	375	250	150	-	-

#	Intersection	Approach	Movement	Future (2028) No Project 95th Percentile Queue					Future (2028) Plus Project 95th Percentile Queue				
				Movement Queue (ft)			Excess Vehicles		Movement Queue (ft)			Excess Vehicles	
				Available Storage	AM	PM	AM	PM	Available Storage	AM	PM	AM	PM
		Northbound	Left	75	75	50	-	-	75	75	50	-	-
			Through	250	200	200	-	-	250	200	200	-	-
			Right	75	50	25	-	-	75	50	25	-	-
		Southbound	Left	100	50	50	-	-	100	50	50	-	-
			Through	450	150	250	-	-	450	125	225	-	-
			Right	75	25	25	-	-	75	25	25	-	-
11	Flower St & 23rd St	Eastbound	Through	325	425	475	4	6	325	425	450	4	5
		Westbound	Left	25	75	75	1	2	25	200	175	7	6
			Through	700	300	250	-	-	700	375	275	-	-
		Southbound	Left	100	50	100	-	-	100	50	100	-	-
			Through	525	50	250	-	-	525	50	225	-	-
			Right	100	25	25	-	-	100	25	25	-	-
12	Figueroa St & Adams Bl	Eastbound	Left	175	300	150	5	-	175	300	150	5	-
			Through	1575	300	400	-	-	1575	300	375	-	-
		Westbound	Left	100	125	150	1	2	100	125	150	1	2
			Through	250	500	375	10	5	250	575	450	13	8
			Right	250	275	200	1	-	250	275	200	1	-
		Northbound	Left	100	175	250	3	6	100	175	250	3	6
			Through	750	525	500	-	-	750	500	475	-	-
			Right	100	50	75	-	-	100	50	75	-	-
		Southbound	Left	175	250	250	3	3	175	275	275	4	4
			Through	950	400	425	-	-	950	350	375	-	-
			Right	175	175	100	-	-	175	150	100	-	-

4. Summary

This traffic operations analysis evaluated the transportation effects of the Washington/Flower Corridor Improvements Project's closure of westbound Washington Boulevard at Flower Street on selected nearby intersections likely to experience increases in peak hour traffic volumes. Analysis was conducted at 12 intersections for three scenarios during typical weekday AM and PM peak hours: Existing (2025) Conditions, Future (2028) No Project, and Future (2028) Plus Project. The analysis incorporated field data and isolated operations analysis using Synchro 12 to understand how changes to roadway configuration could affect traffic flow. The metrics used to determine the traffic operational effects of the project were intersection delay/level of service (LOS) and 95th percentile queueing (queues occurring one of every 20 cycles).

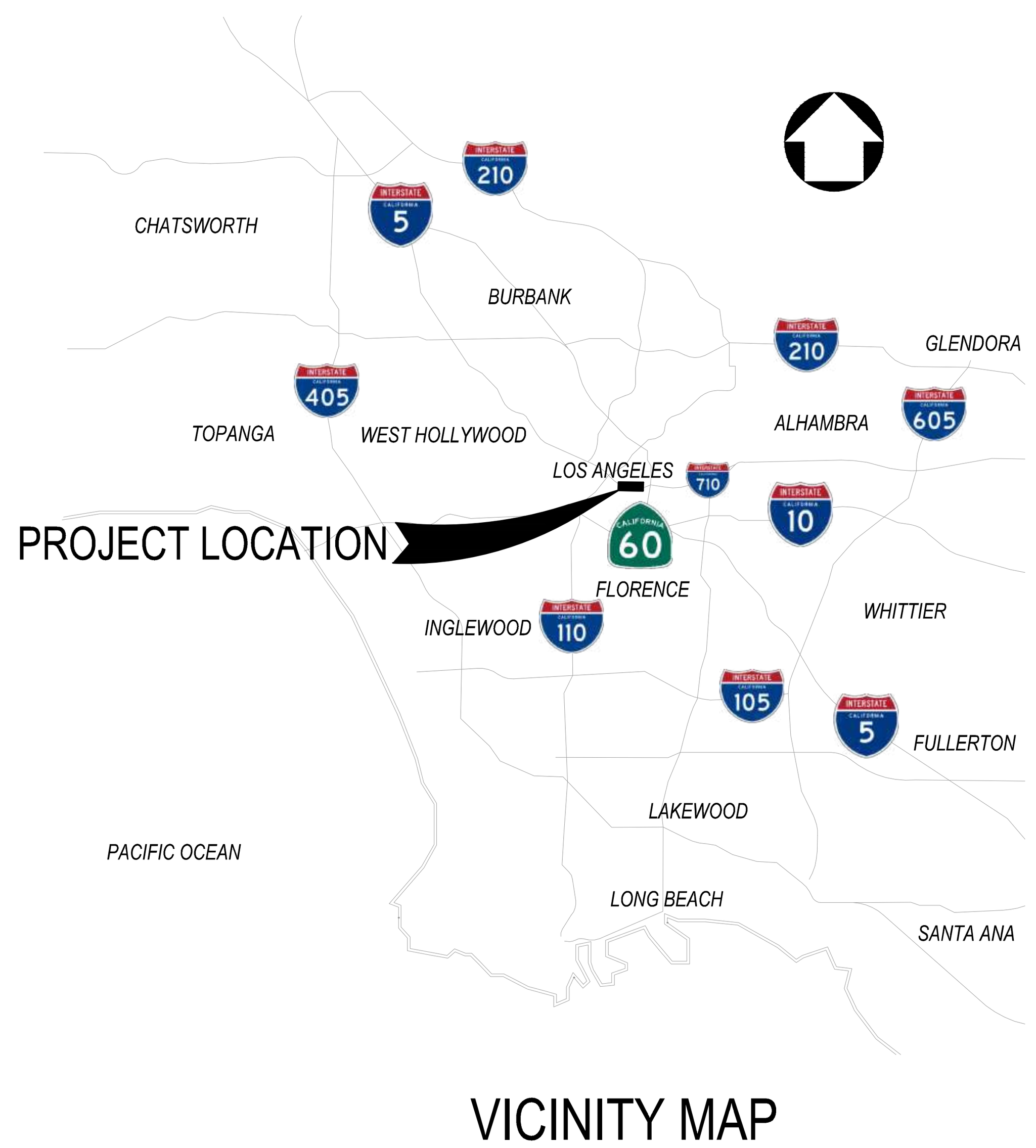
Generally, minor increases in delay at the study intersections are expected compared to the No Project scenario due to additional vehicle trips diverted from westbound Washington Boulevard. The Flower Street/23rd Street intersection is the only intersection expected to see a change in LOS letter grade (D to E in the AM peak hour and C to D in the PM peak hour). Project adjustments that could help reduce added delay (such as optimizing signal timing or geometric adjustments) have not been evaluated as part of this study.

Appendix A. Washington/Flower Corridor Improvements Project Draft Conceptual Engineering Plans

WASHINGTON/FLOWER CORRIDOR IMPROVEMENTS

15% ENGINEERING CONCEPTUAL PLANS
2028 GAMES MOBILITY CONCEPT PLAN PHASE 2 PROJECTS

12TH ST FROM FIGUEROA ST TO HOPE ST
WASHIGNTON BLVD FROM FLOWER ST TO GRAND AVE



VICINITY MAP

LIST OF ABBREVIATIONS

AVE	AVENUE	PIP	PROTECT IN PLACE
BLVD	BOULEVARD	RR	RAIL ROAD
CL	CENTERLINE	R/W	RIGHT OF WAY
CPUC	CALIFORNIA PUBLIC UTILITIES COMMISSION	RD	ROAD
DWY	DRIVEWAY	RT	RIGHT
EB	EAST BOUND	SB	SOUTH BOUND
EXIST	EXISTING	ST	STREET
HWY	HIGHWAY	SWLK	SIDEWALK
I	INTERSTATE	TYP	TYPICAL
LT	LEFT	VAR	VARIES
NB	NORTH BOUND	WB	WEST BOUND

GENERAL NOTES

1. DESIGN IS CONCEPTUAL IN NATURE, FOR PURPOSE OF ESTABLISHING ENVIRONMENTAL FOOTPRINT.
2. FURTHER COORDINATION NEEDED WITH MUNICIPAL AGENCIES.
3. SIGNAGE AND PAVEMENT MARKINGS TO CONFORM TO THE LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. DETAILS TO BE DEVELOPED DURING FUTURE DESIGN PHASE.
4. THE EXISTENCE AND LOCATION OF RIGHT OF WAY BOUNDARIES AND CENTERLINES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF RECORDS IN NAVIGATE LA. NO CERTIFICATIONS ARE MADE AS TO THE ACCURACY OR THOROUGHNESS OF THESE RECORDS.
5. CIVIL IMPROVEMENTS TO FOLLOW THE 2021 STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION, 2023 CALTRANS STANDARD PLANS, AND CITY OF LOS ANGELES STANDARD PLANS. WHEN AN IMPROVEMENT HAS MULTIPLE DESIGN STANDARDS, THE MOST STRINGENT SHOULD BE FOLLOWED WITH CONCURRENCE FROM APPROVING AGENCIES.
6. APPROXIMATELY 20 LOCAL NATIVE AND/OR DROUGHT TOLERANT SHADE TREES. LOCATION TO BE DETERMINED DURING NEXT PHASE OF DESIGN IN COORDINATION WITH EXISTING UTILITIES.

INDEX OF DRAWINGS

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY R. LINDEMAN
DRAWN BY R. LINDEMAN
CHECKED BY R. MEZA
IN CHARGE C. HETLAND
DATE 10/2/2025

REGISTERED PROFESSIONAL ENGINEER — NOT FOR CONSTRUCTION — CIVIL — STATE OF CALIFORNIA

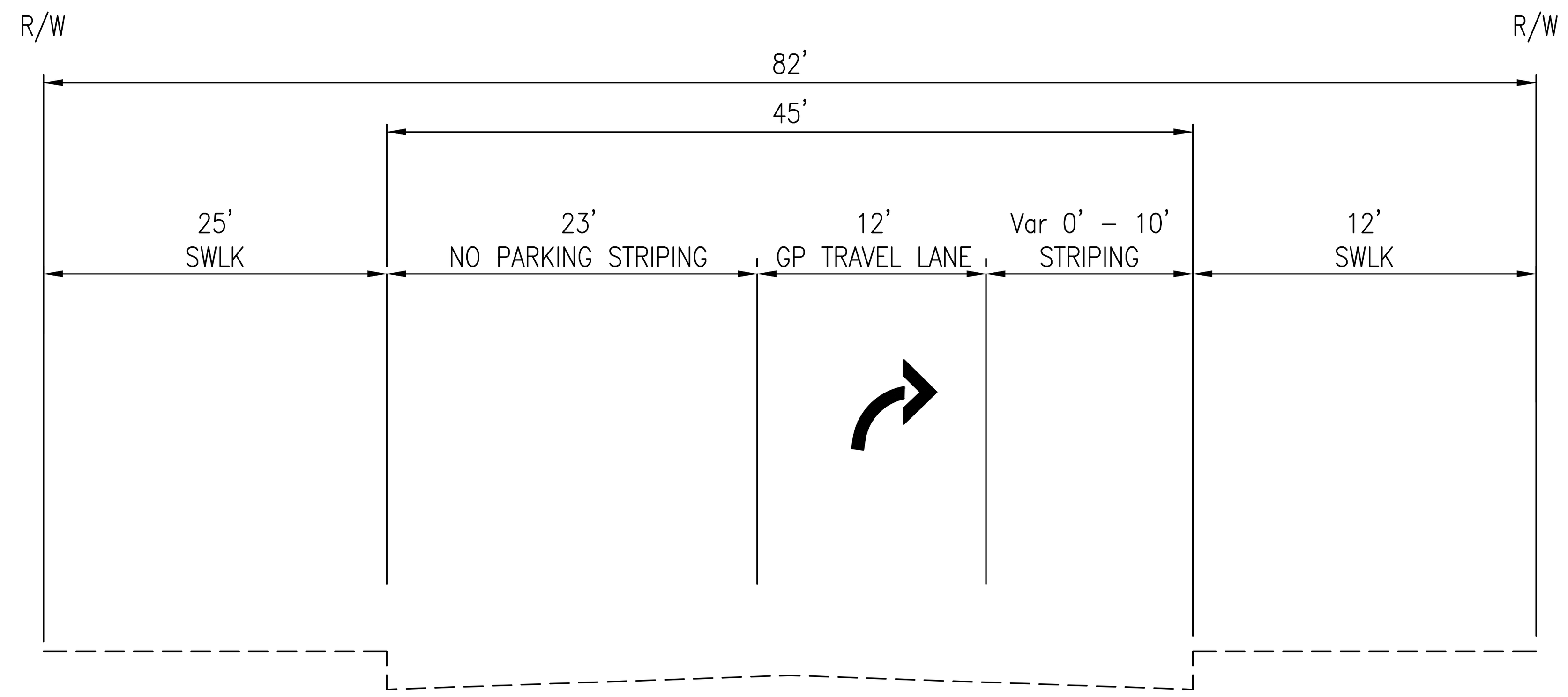
Metro — LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

Jacobs — 555 S FLOWER ST, SUITE 3200, LOS ANGELES, CA 90071

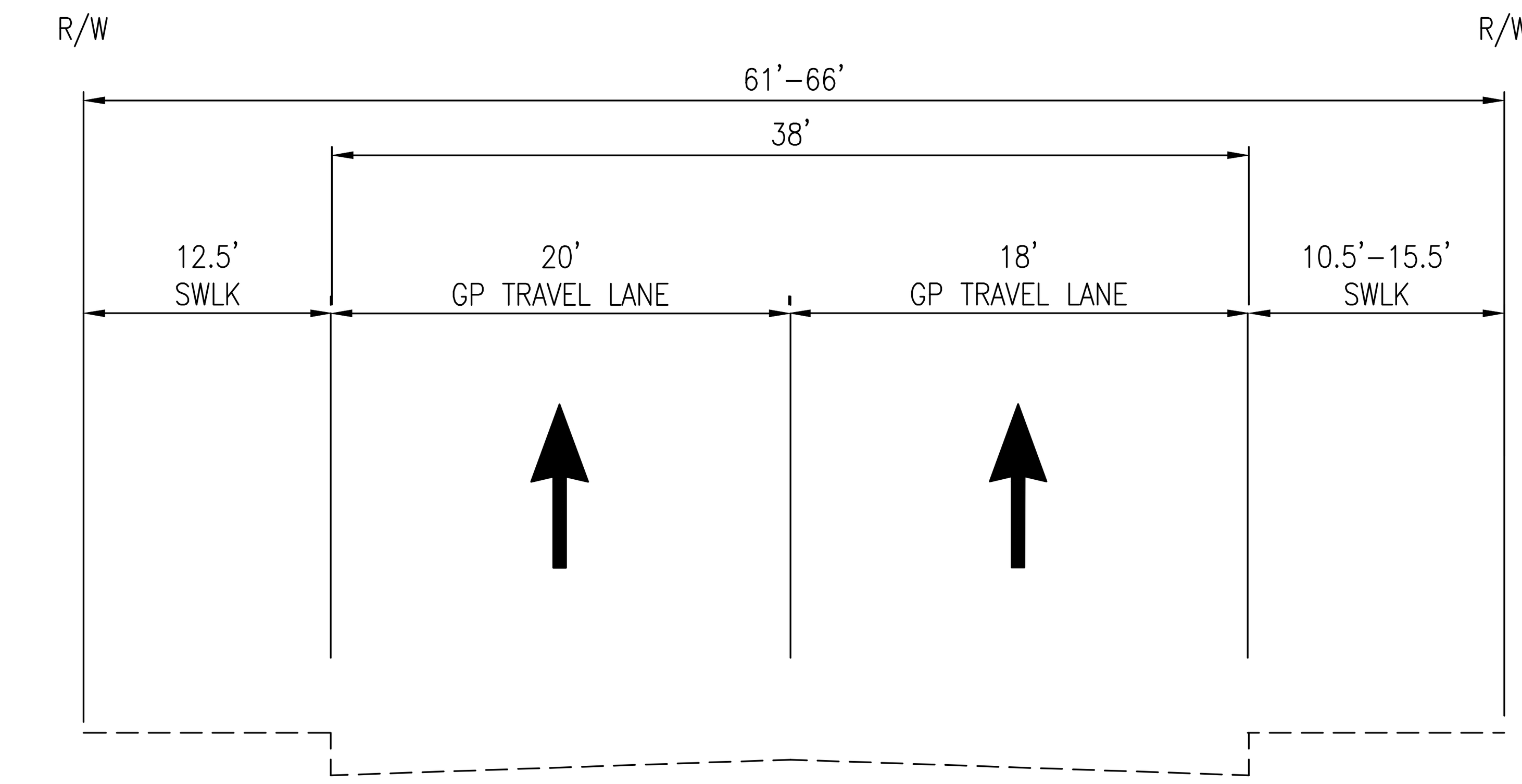
2028 GAMES MOBILITY CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
WASHINGTON/FLOWER CORRIDOR IMPROVEMENTS

CONTRACT NO
DRAWING NO G-001
REV
SCALE NO SCALE



12TH ST – BASE OPTION
FROM FIGUEROA ST TO FLOWER ST



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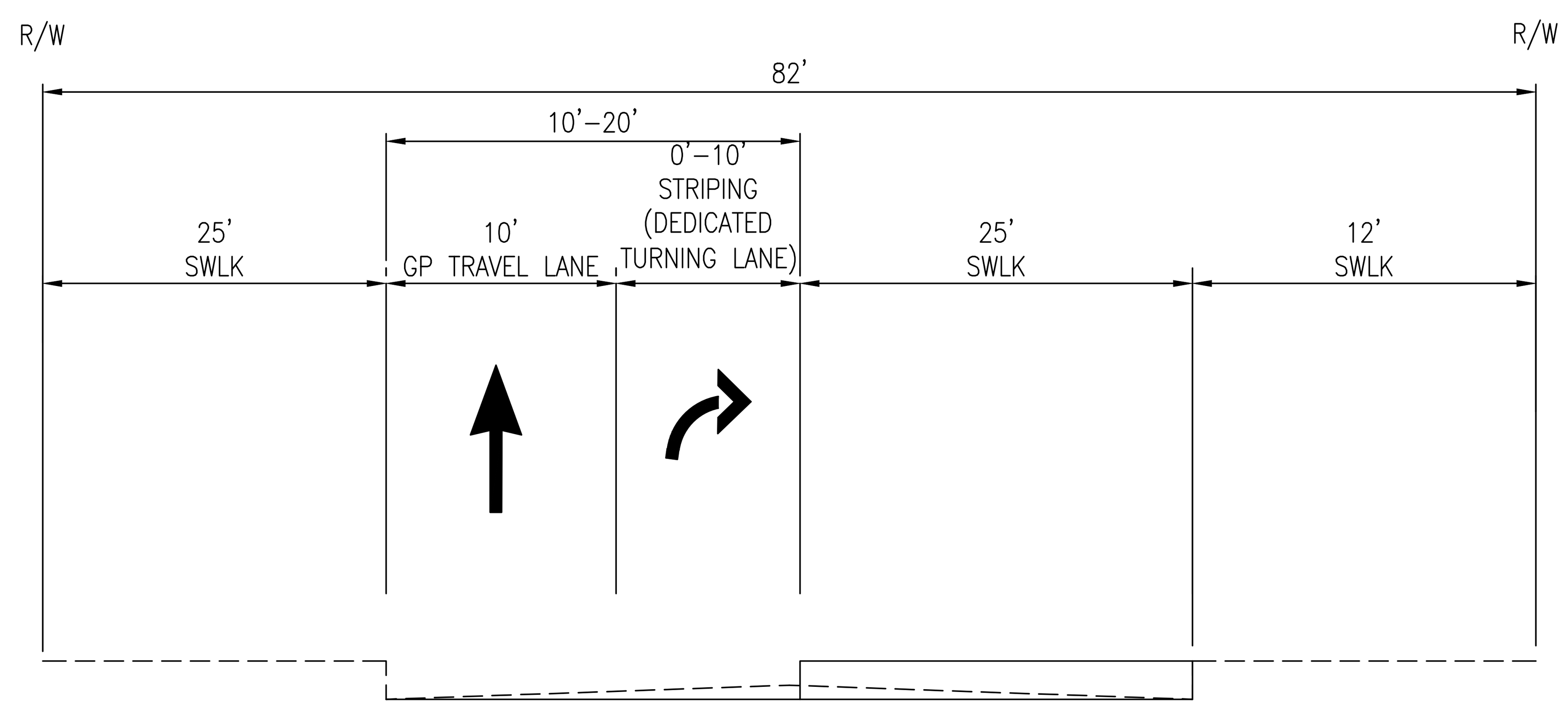
FROM FLOWER ST TO HOPE ST



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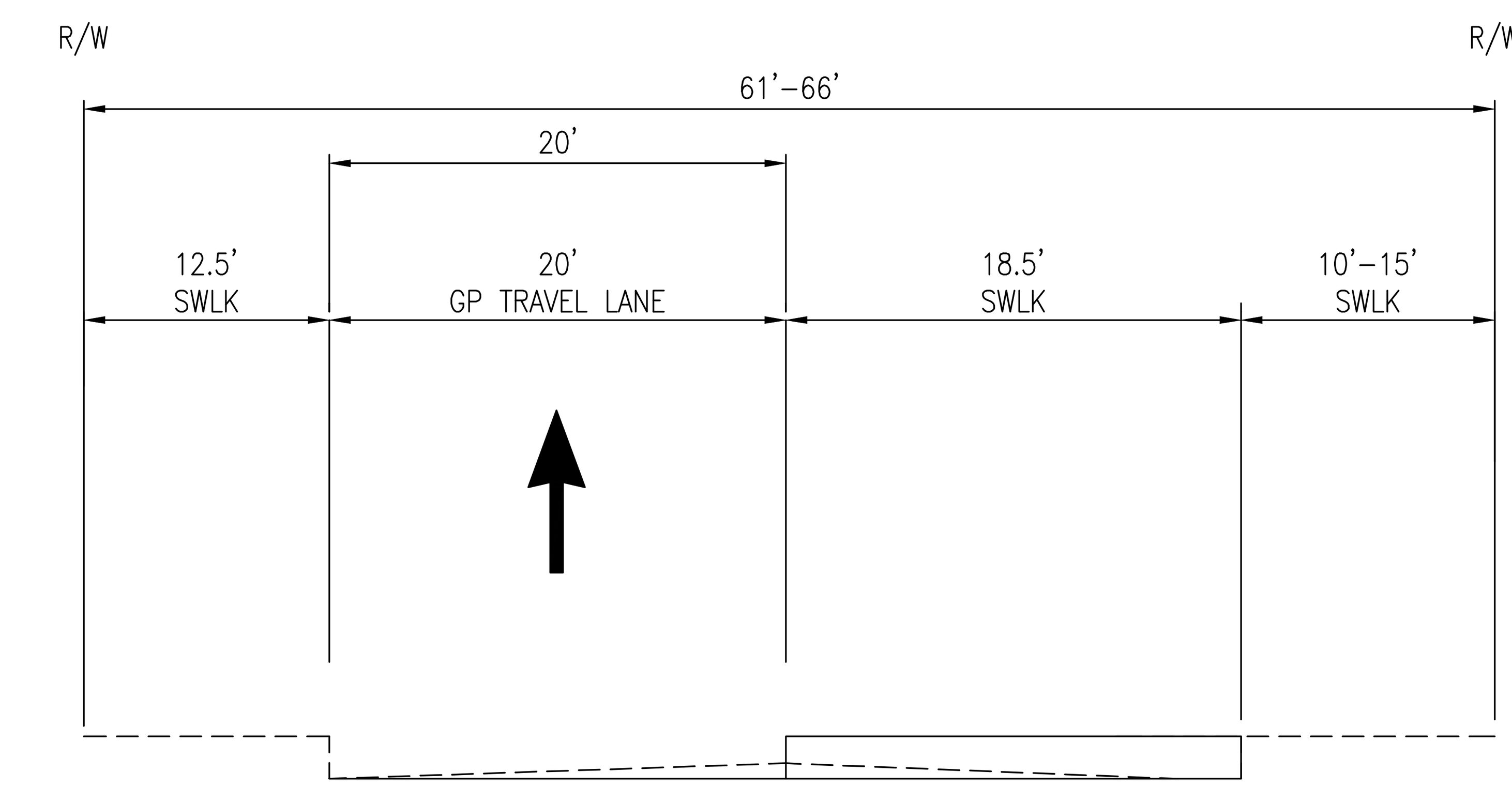
FROM FIGUEROA ST TO FLOWER ST



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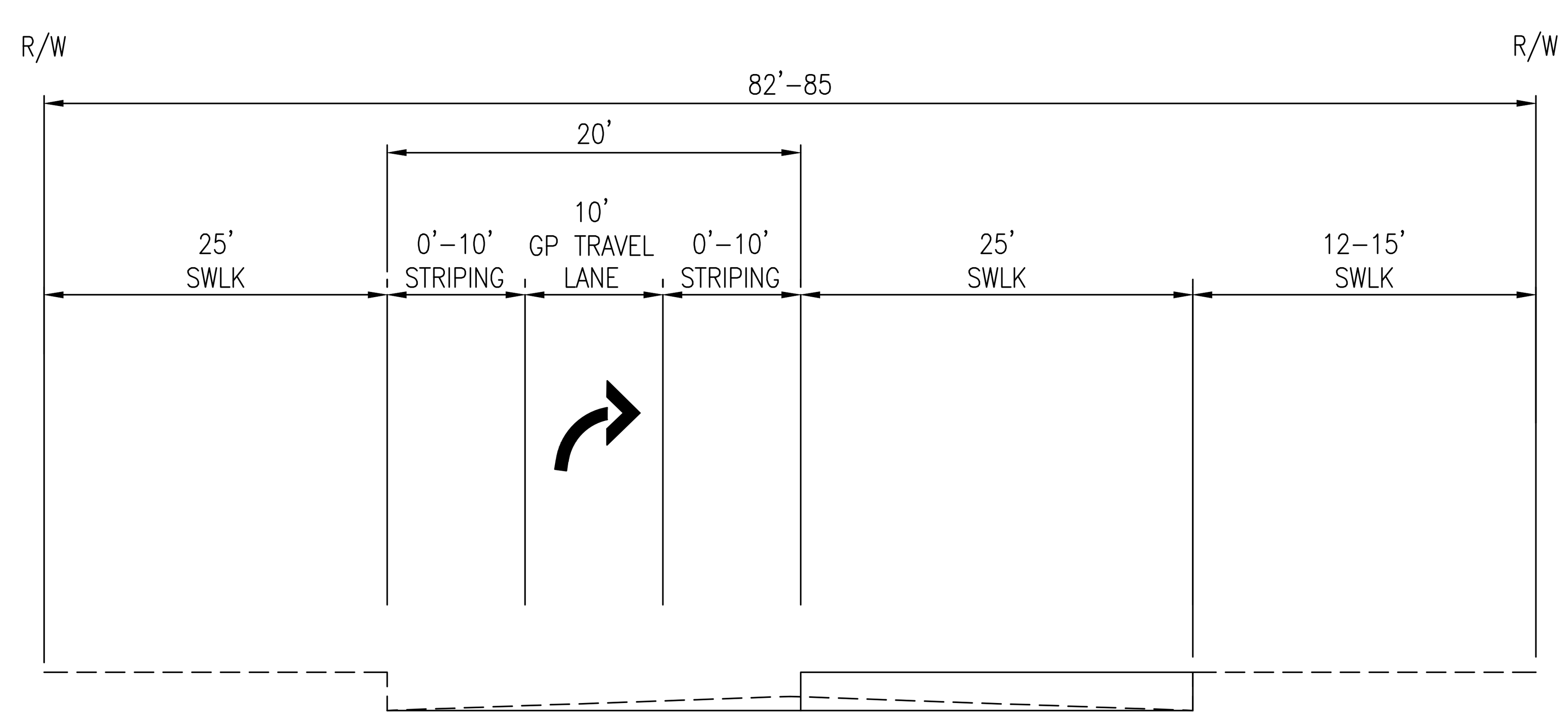

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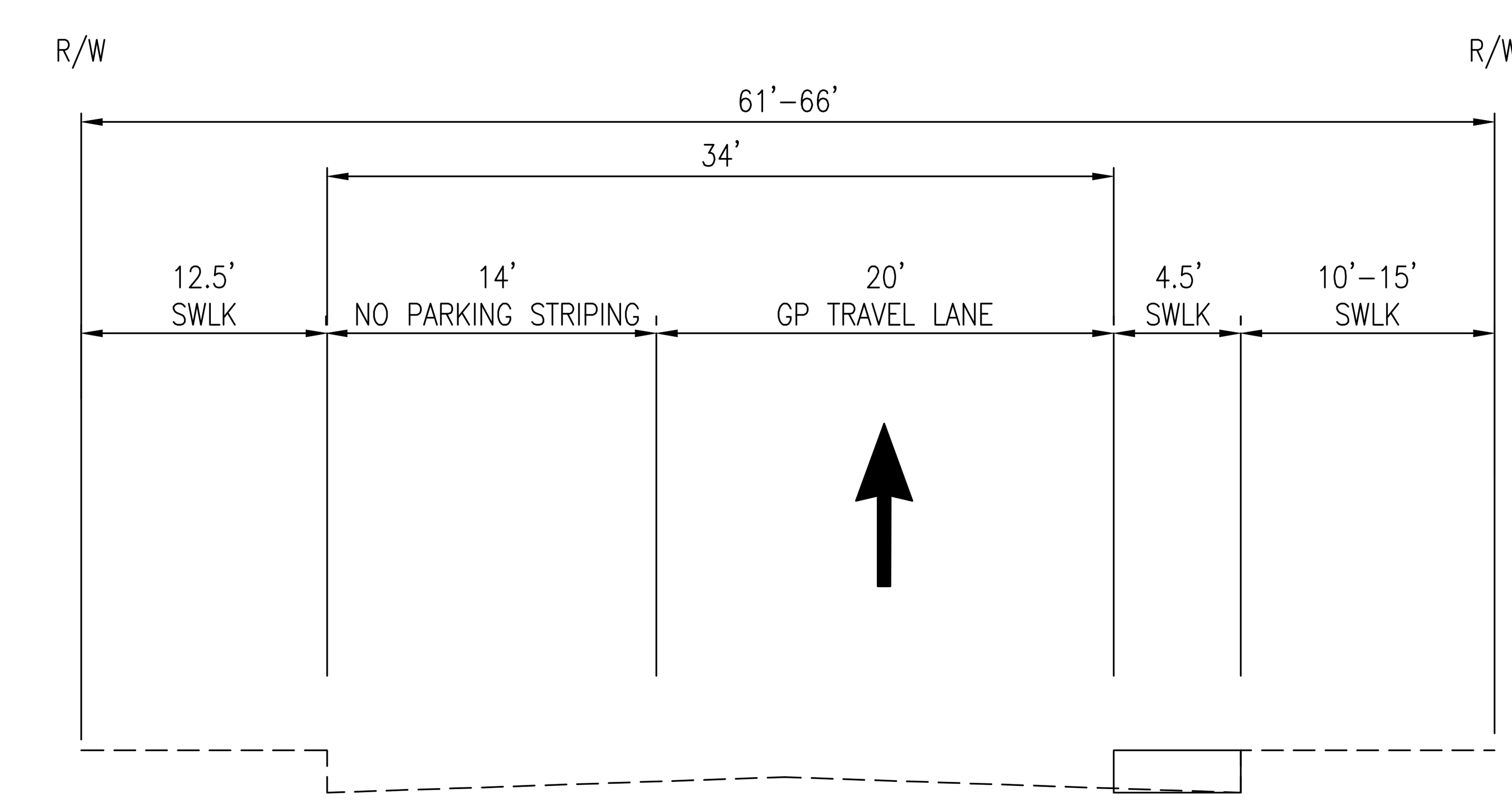

12TH ST – DESIGN OPTION 2
FROM FLOWER ST TO HOPE ST

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

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DRAWN BY R. LINDEMAN
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IN CHARGE C. HETLAND
DATE 10/1/2025

REGISTERED PROFESSIONAL ENGINEER
NOT FOR CONSTRUCTION
CIVIL
STATE OF CALIFORNIA

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LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

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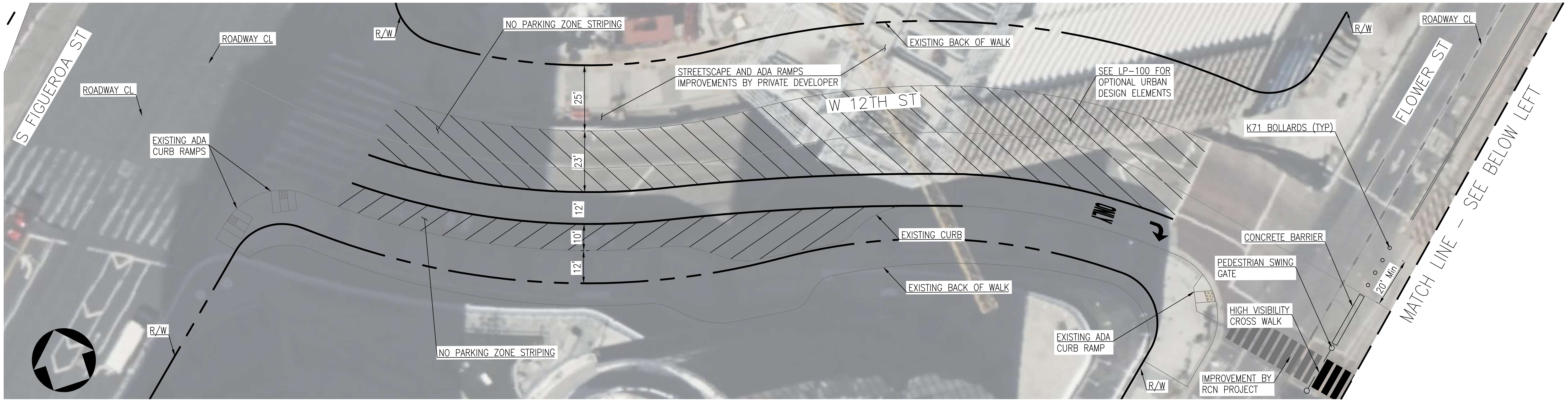
LOS ANGELES, CA 90071

2028 GAMES MOBILITY
CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
12TH ST – CROSS SECTIONS

CONTRACT NO
DRAWING NO. CS-101
REV
SCALE NO SCALE
SHEET NO 2 OF 13



12TH ST BETWEEN S FIGUEROA ST AND FLOWER ST

12TH ST BETWEEN FLOWER ST AND S HOPE ST

ENGINEER'S GENERAL NOTES

1. THE EXISTENCE AND LOCATION OF ALL RIGHT OF WAY BOUNDARIES AND PARCEL BOUNDARIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF RECORDS. NO CERTIFICATIONS ARE MADE AS TO THE ACCURACY OR THOROUGHNESS OF THESE RECORDS.
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20' 10' 0 20' 40'
HORIZ: 1" = 20'

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

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DESIGNED BY R. LINDEMAN
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IN CHARGE C. HETLAND
DATE 10/1/2025

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LOS ANGELES, CA 90071

2028 GAMES MOBILITY CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
12TH ST - BASE OPTION -
CIVIL IMPROVEMENTS

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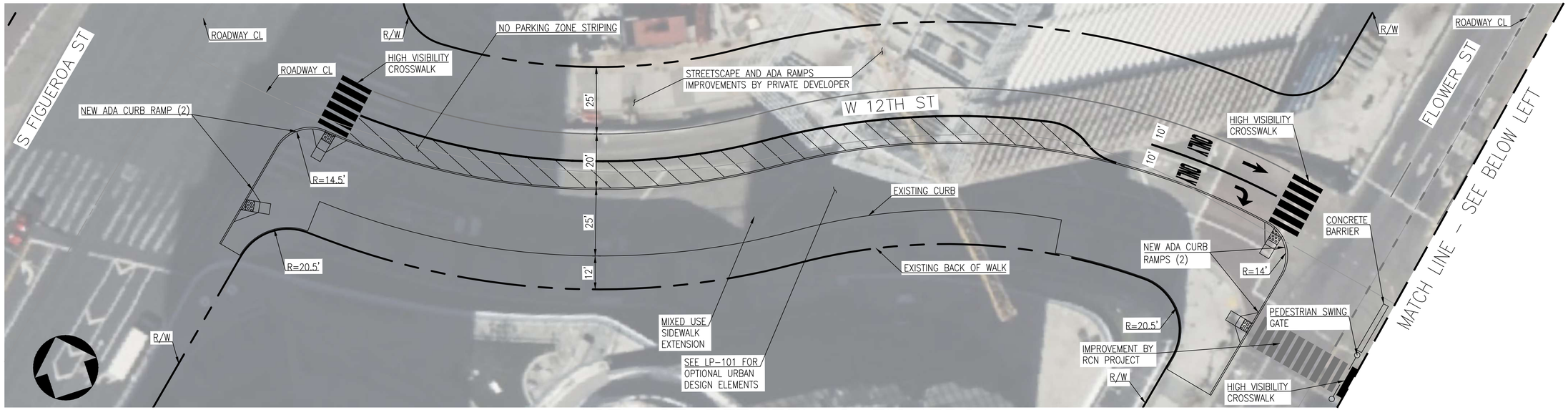
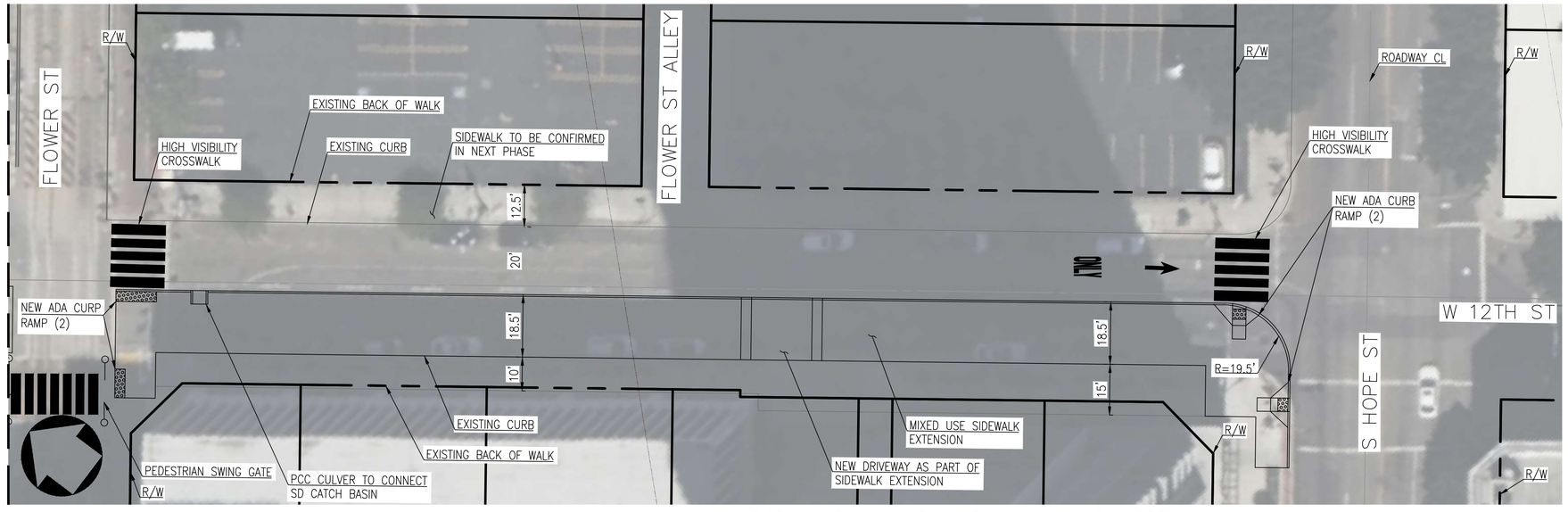
DRAWING NO CP-100
REV
SCALE 1" = 20'
SHEET NO 3 OF 13



12TH ST BETWEEN S FIGUEROA ST AND FLOWER ST



12TH ST BETWEEN FLOWER ST AND S HOPE ST

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DESIGNED BY: R. LINDEMAN
DRAWN BY: R. LINDEMAN
CHECKED BY: R. MEZA
IN CHARGE: C. HETLAND
DATE: 10/1/2025

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2028 GAMES MOBILITY CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
12TH ST – DESIGN OPTION 1 – CIVIL IMPROVEMENTS

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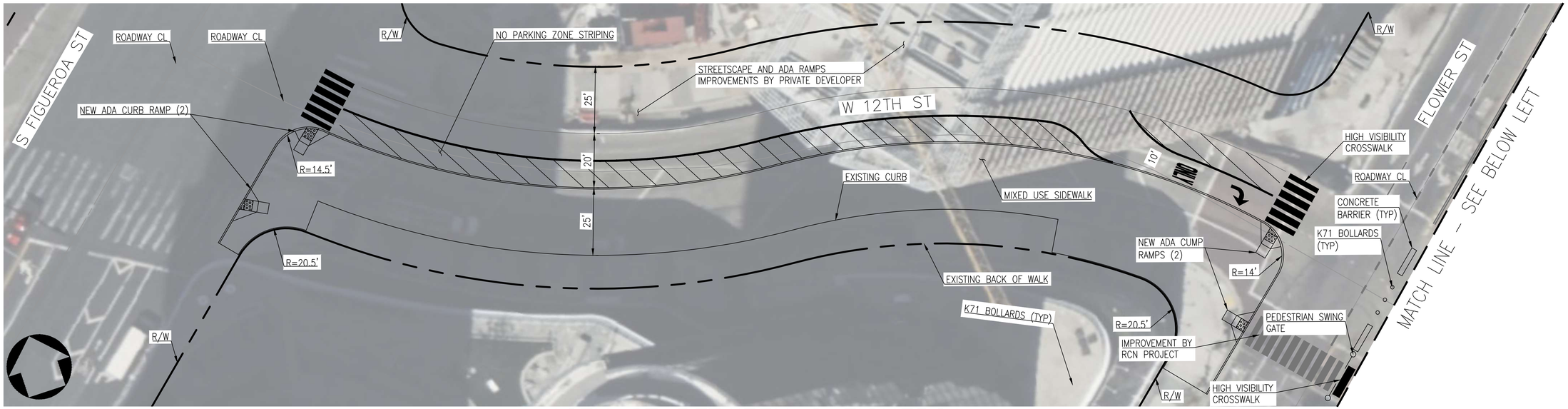
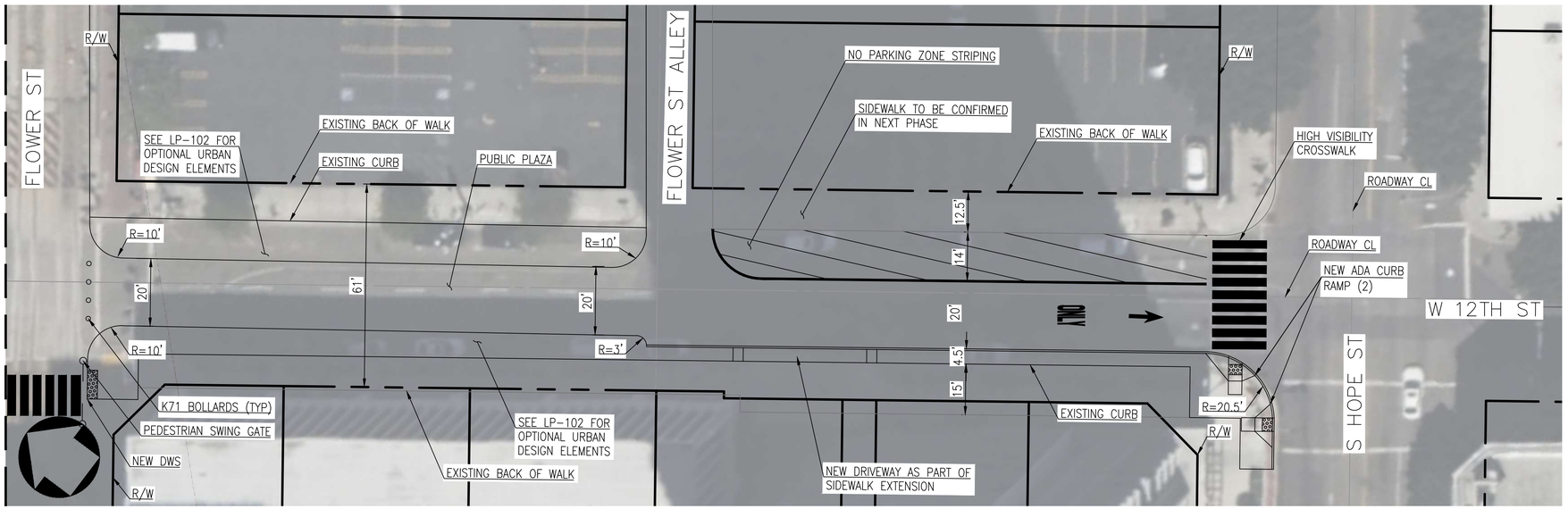


12TH ST BETWEEN S FIGUEROA ST AND FLOWER ST



12TH ST BETWEEN FLOWER ST AND S HOPE ST

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HORIZ: 1" = 20'

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REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY R. LINDEMAN
DRAWN BY R. LINDEMAN
CHECKED BY R. MEZA
IN CHARGE C. HETLAND
DATE 10/1/2025

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LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

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LOS ANGELES, CA 90071

2028 GAMES MOBILITY CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
12TH ST – DESIGN OPTION 2 – CIVIL IMPROVEMENTS

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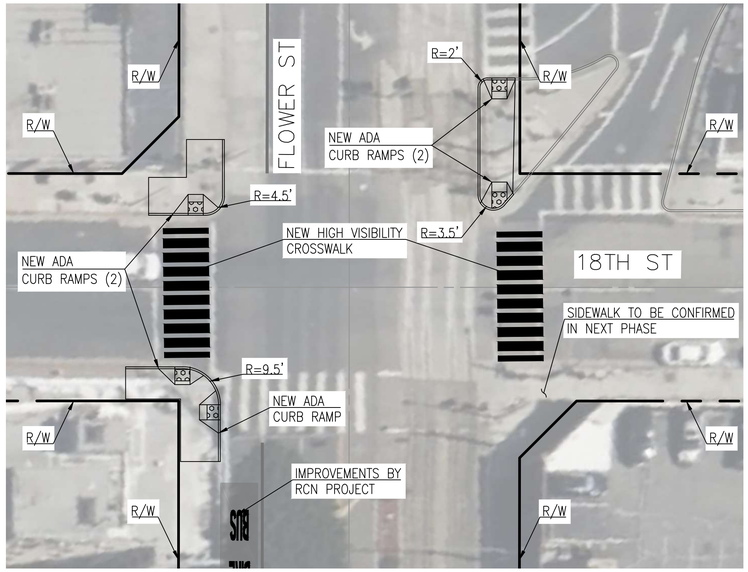
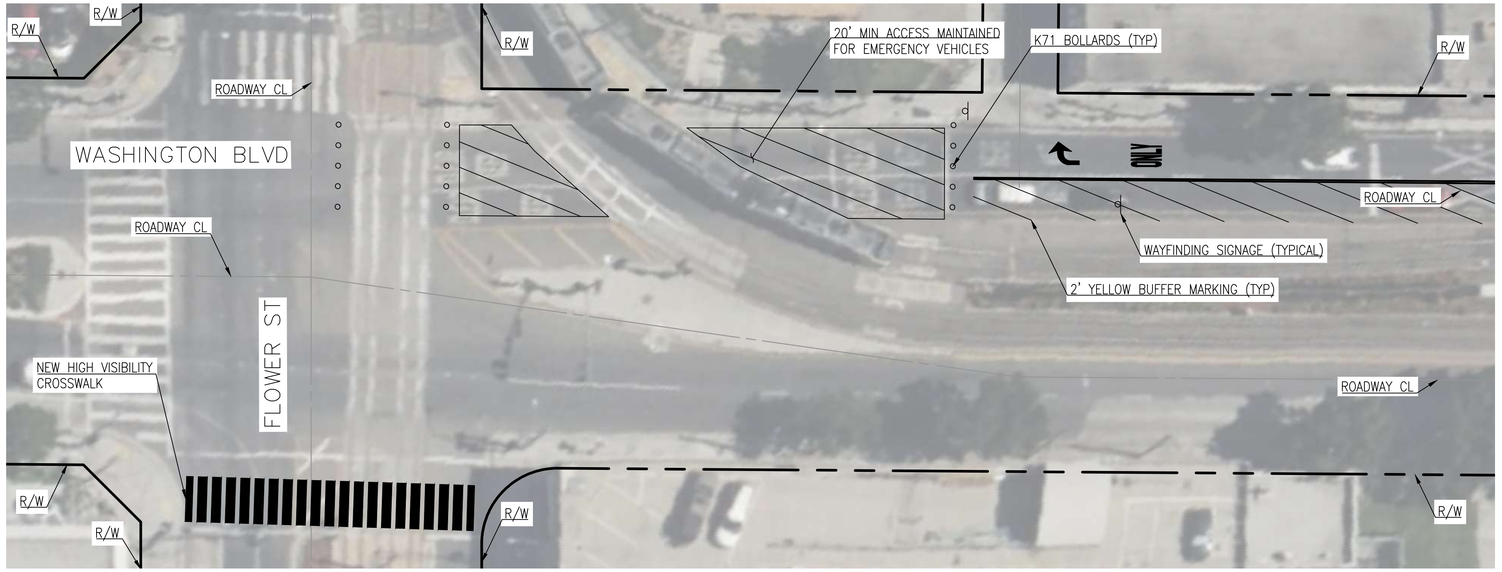
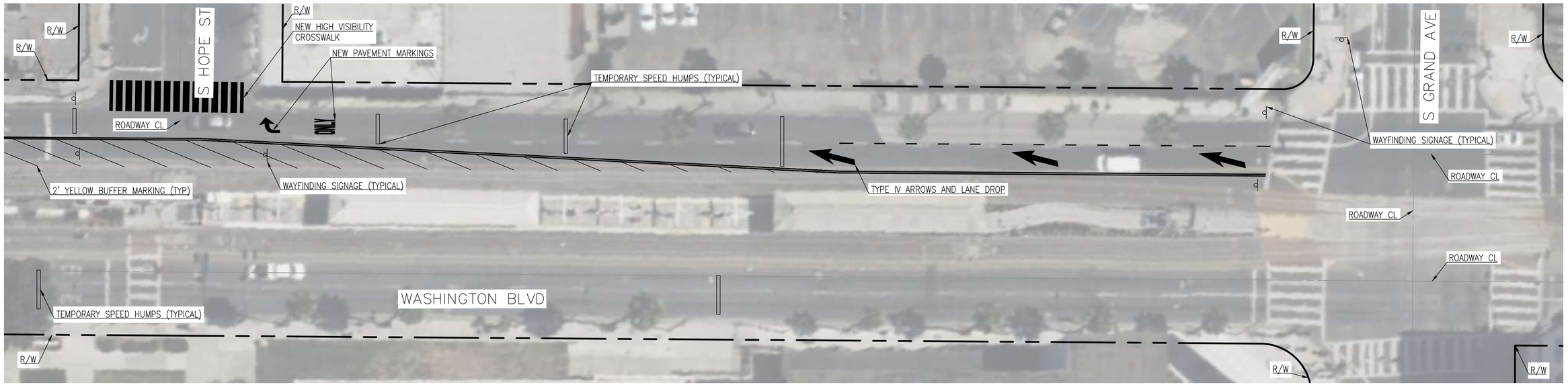
SCALE 1" = 20'
SHEET NO 5 OF 13



18TH ST AT FLOWER ST



WASHINGTON BLVD AT FLOWER ST



WASHINGTON BLVD AT S GRAND AVE

20' 10' 0 20' 40'
HORIZ: 1" = 20'

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY R. LINDEMAN
DRAWN BY R. LINDEMAN
CHECKED BY R. MEZA
IN CHARGE C. HETLAND
DATE 10/1/2025

REGISTERED PROFESSIONAL ENGINEER
NOT FOR CONSTRUCTION
CIVIL
STATE OF CALIFORNIA

Metro
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

Jacobs
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LOS ANGELES, CA 90071

2028 GAMES MOBILITY
CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
18TH ST AND WASHINGTON BLVD
– CIVIL IMPROVEMENTS

CONTRACT NO
DRAWING NO CP-103
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SCALE 1" = 20'
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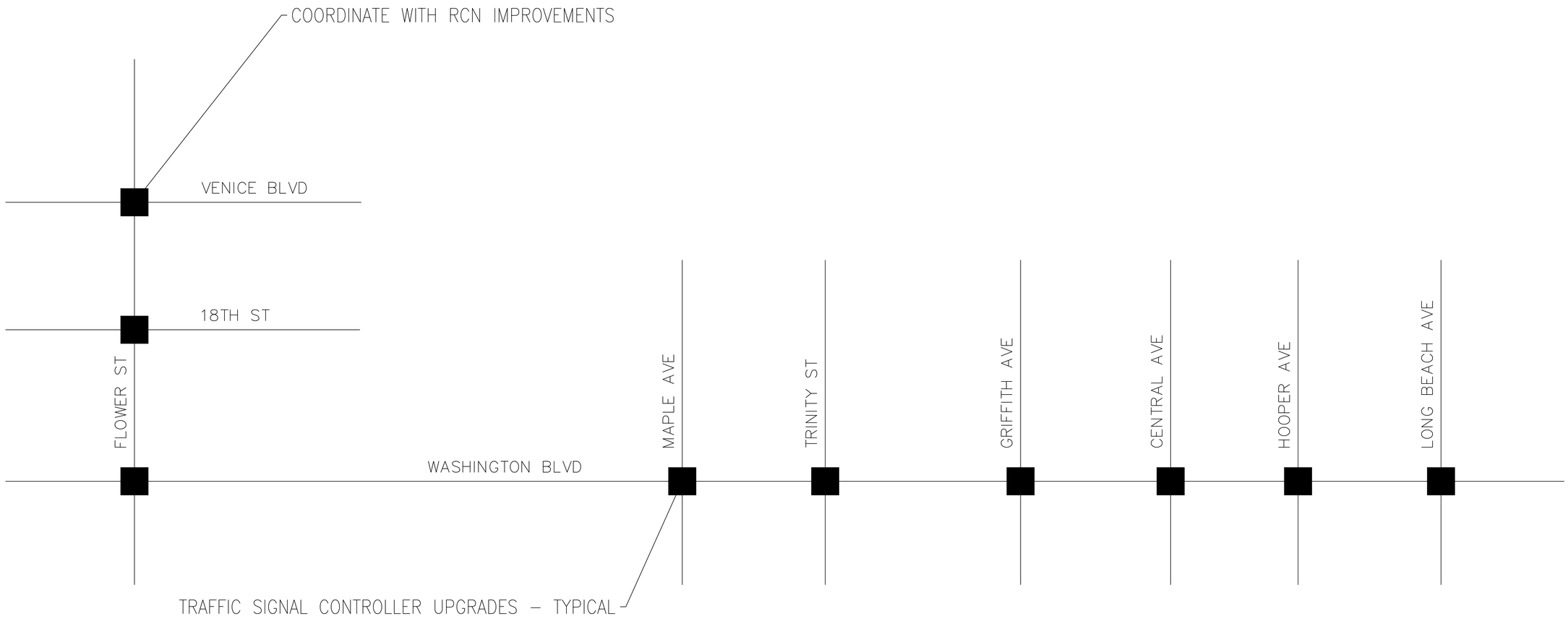

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY R. LINDEMAN
DRAWN BY R. LINDEMAN
CHECKED BY R. MEZA
IN CHARGE C. HETLAND
DATE 10/1/2025

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LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

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LOS ANGELES, CA 90071

2028 GAMES MOBILITY
CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
TRAFFIC SIGNAL
CONTROL UPGRADES

CONTRACT NO
DRAWING NO CP-104
REV
SCALE N.T.S.
SHEET NO 7 OF 13

IMPROVEMENT DETOUR MAP

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY: R. LINDEMAN
DRAWN BY: R. LINDEMAN
CHECKED BY: R. MEZA
IN CHARGE: C. HETLAND
DATE: 10/2/2025

REGISTERED PROFESSIONAL ENGINEER — NOT FOR CONSTRUCTION — CIVIL — STATE OF CALIFORNIA

Metro
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

Jacobs
555 S FLOWER ST, SUITE 3200
LOS ANGELES, CA 90071

2028 GAMES MOBILITY
CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
12TH ST AND WASHINGTON/FLOWER
IMPROVEMENT DETOUR

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SCALE: N.T.S.
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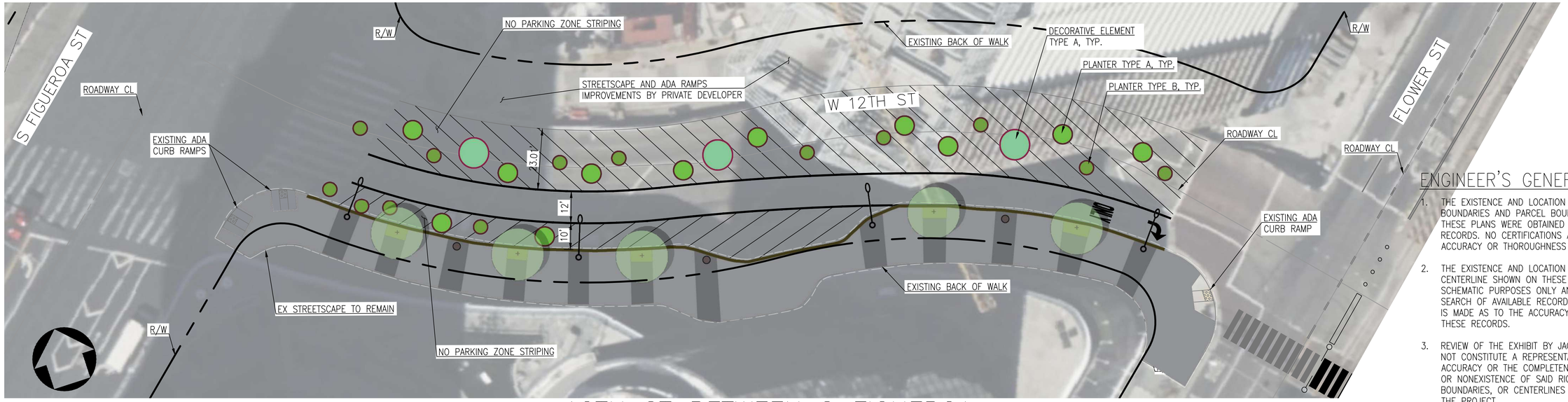

12TH ST BETWEEN S FIGUEROA ST AND FLOWER ST

ENGINEER'S GENERAL NOTES

1. THE EXISTENCE AND LOCATION OF ALL RIGHT OF WAY BOUNDARIES AND PARCEL BOUNDARIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF RECORDS. NO CERTIFICATIONS ARE MADE AS TO THE ACCURACY OR THOROUGHNESS OF THESE RECORDS.
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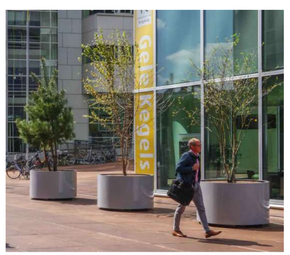
LANDSCAPE NOTES

1. DECORATIVE ELEMENT TYPE A: UNIQUE DECORATIVE/SCULPTURAL FEATURES. INTENT IS FOR THESE TO BE ICONIC FOCAL POINTS, POTENTIAL BRANDING OPPORTUNITIES, THAT MAY ALSO BE A PLANTER. DIA.. APPROX. 8'–10', HT. APPROX. 4'–6'. QTY 3.
2. PLANTER TYPE B: 91" DIA, VARIABLE HT. FROM 20"–35", QTY 11.
3. PLANTER TYPE C: 47" & 63" DIA., VARIABLE HT. FROM 20"–35", QTY. 13
4. EX. STREETSCAPE SHOWN ON SOUTH SIDE OF 12TH ST. IS APPROXIMATE AND HAS NOT BEEN SURVEYED.

DECORATIVE ELEMENT EXAMPLE



PLANTER EXAMPLES

CONCEPTUAL RENDERING

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY: M. ODUM
DRAWN BY: S. KUMMER
CHECKED BY: M. ODUM
IN CHARGE: C. HETLAND
DATE: 10/2/2025

NOT FOR CONSTRUCTION

Metro
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

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LOS ANGELES, CA 90071

2028 GAMES MOBILITY CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
12TH ST – BASE OPTION
LANDSCAPE IMPROVEMENTS

CONTRACT NO
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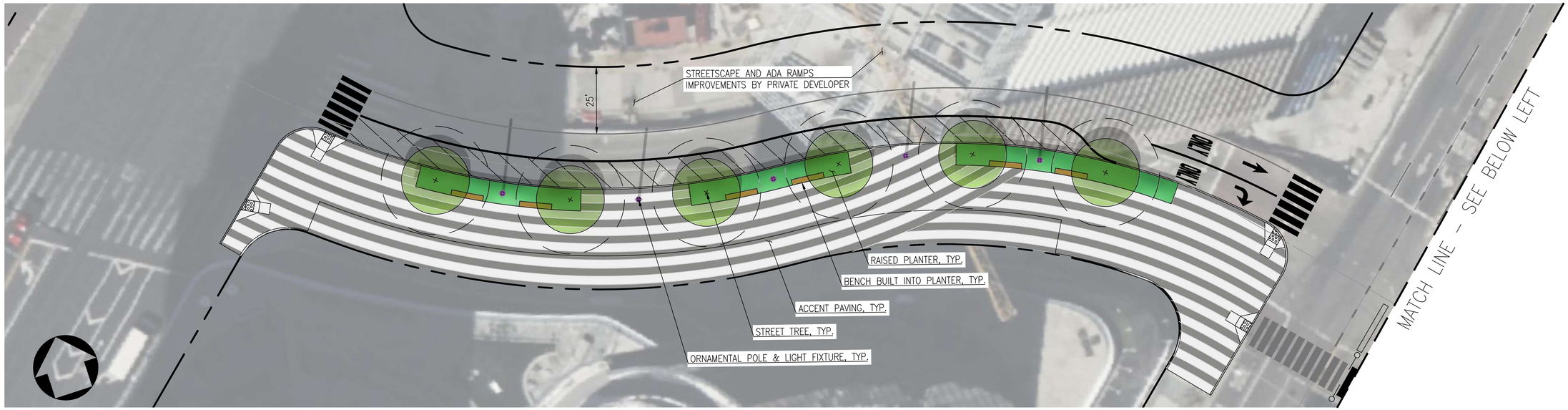
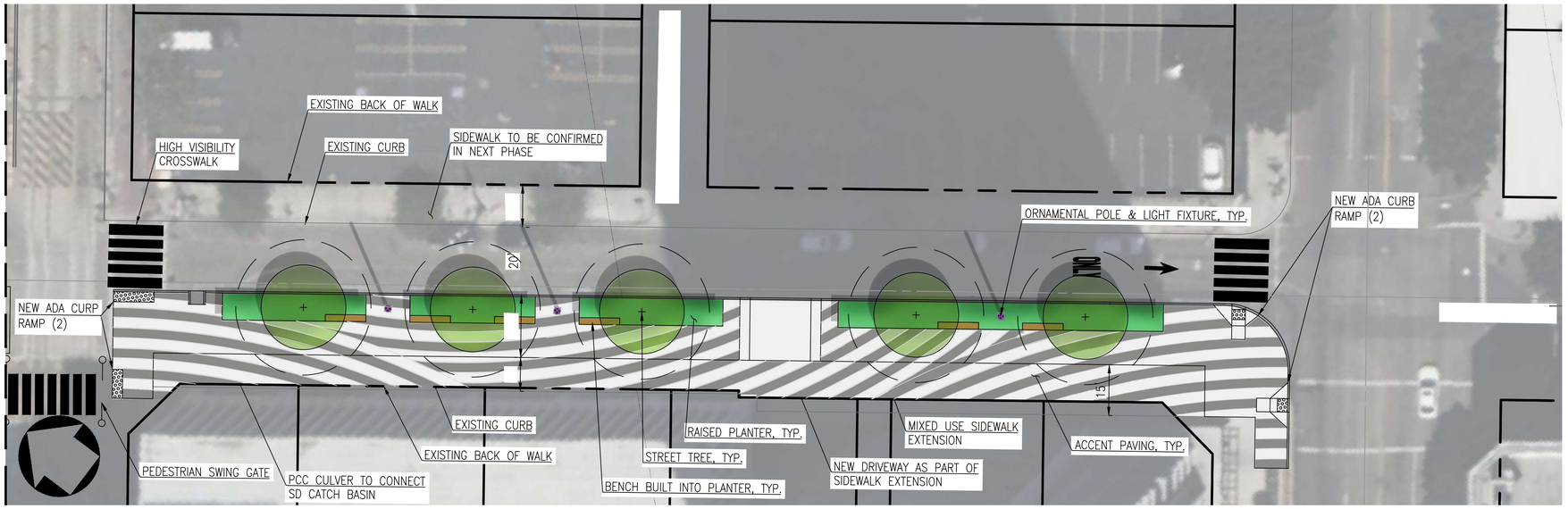
REV
SCALE: 1" = 20'
SHEET NO: 9 OF 13



12TH ST BETWEEN S FIGUEROA ST AND FLOWER ST



12TH ST BETWEEN FLOWER ST AND S HOPE ST

GENERAL NOTES

1. REFER TO LP-102 FOR DESCRIPTION OF LANDSCAPE IMPRVEMENTS CONCEPT, PRECEDENT EXAMPLES AND CONCEPT RENDERING.

ENGINEER'S GENERAL NOTES

1. THE EXISTENCE AND LOCATION OF ALL RIGHT OF WAY BOUNDARIES AND PARCEL BOUNDARIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF RECORDS. NO CERTIFICATIONS ARE MADE AS TO THE ACCURACY OR THOROUGHNESS OF THESE RECORDS.
2. THE EXISTENCE AND LOCATION OF ANY ROADWAY CENTERLINE SHOWN ON THESE PLANS ARE FOR SCHEMATIC PURPOSES ONLY AND WAS OBTAINED BY A SEARCH OF AVAILABLE RECORDS. NO CERTIFICATION IS MADE AS TO THE ACCURACY OR THOROUGHNESS OF THESE RECORDS.
3. REVIEW OF THE EXHIBIT BY JACOBS OR METRO DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR THE COMPLETENESS OF THE LOCATION OR NONEXISTENCE OF SAID RIGHT OF WAY, PARCEL BOUNDARIES, OR CENTERLINES WITHIN THE LIMITS OF THE PROJECT.

20' 10' 0 20' 40'
HORIZ: 1" = 20'

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY: M. ODUM
DRAWN BY: S. KUMMER
CHECKED BY: M. ODUM
IN CHARGE: C. HETLAND
DATE: 10/2/2025

NOT FOR CONSTRUCTION

Metro
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

Jacobs
555 S FLOWER ST, SUITE 3200
LOS ANGELES, CA 90071

2028 GAMES MOBILITY CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
12TH ST - DESIGN OPTION 1 - LANDSCAPE IMPROVEMENTS

CONTRACT NO
DRAWING NO: LP-101
REV
SCALE: 1" = 20'
SHEET NO: 10 OF 13

DESIGN OPTION 1 - CLEAN, CONTEMPORARY, CONTINUITY END TO END

DESIGN INSPIRATION – COLORADO ESPLENADE

- TREES EVENLY SPACED 50' ON CENTER
- POLE LIGHT FIXTURES EVENLY SPACED 50' ON CENTER
- BOLD, PATTERNED PAVING
- OPTION TO DO TENSION CABLE LIGHT FIXTURES AT PLAZA (DESIGN OPTION 2)

ENHANCED PAVING

- GENTLE CURVES REFER TO FORM OF CRYPTO ARENA AND CIRCA TOWERS
- DURABLE UNIT PAVERS
- SUBTLE PATTERN WITH PEDESTRIAN–SCALED PROPORTIONS
- SUBDUED, TIMELESS, NEUTRAL COLOR PALETTE

TREES

- EVENLY SPACED 50' ON CENTER
- SHADE TOLERANT
- OPTION TO UPLIGHT

POLE LIGHT FIXTURES

- EVENLY SPACED 50' ON CENTER
- OPTION TO REPLACE EXISTING HISTORIC FIXTURES WITH NEW, CONTEMPORARY FIXTURES

SIMPLE, RECTANGULAR RAISED PLANTERS

- POWDER COATED METAL (NEUTRAL DARK GRAY TO MATCH PAVING)
- INTEGRAL SEATING ELEMENT (PRECAST CONCRETE PREFERRED, LIGHTER COLOR)
- 18" HIGH ALONG FACE (PARALLEL TO PATH OF TRAVEL)
- TAPERING FROM 18" TO 0" AT END CAPS (PERPENDICULAR TO PATH OF TRAVEL)
- 'GAPS' AT POLE LIGHTS FOR EVENT VENDORS, FOOD TRUCKS, ETC

CONCEPTUAL RENDERING – WEST

CONCEPTUAL RENDERING – EAST

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY: M. ODUM
DRAWN BY: S. KUMMER
CHECKED BY: M. ODUM
IN CHARGE: C. HETLAND
DATE: 10/2/2025

NOT FOR CONSTRUCTION

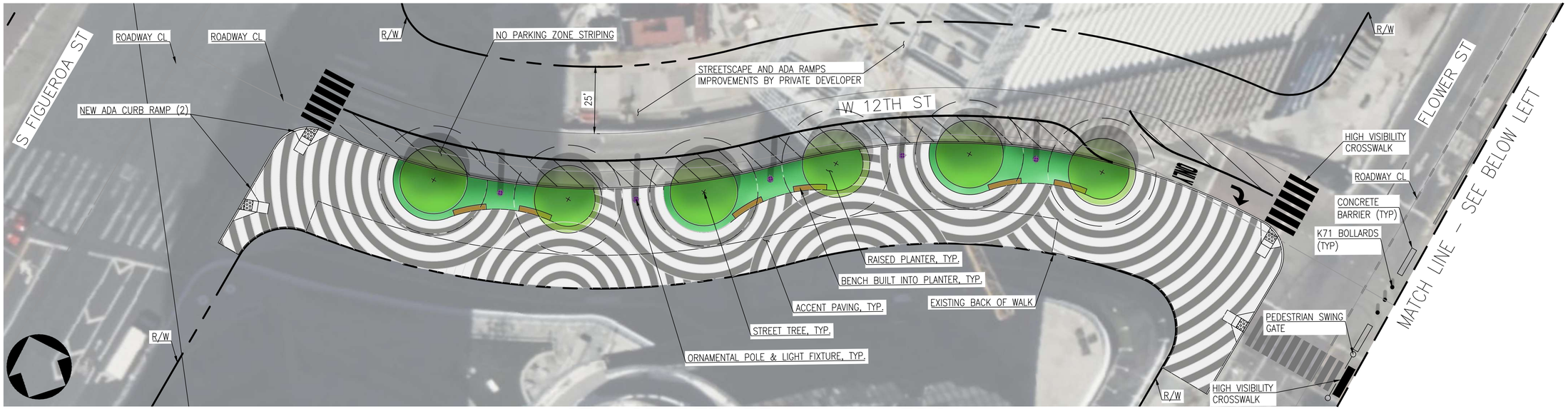
Metro
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

Jacobs
555 S FLOWER ST, SUITE 3200
LOS ANGELES, CA 90071

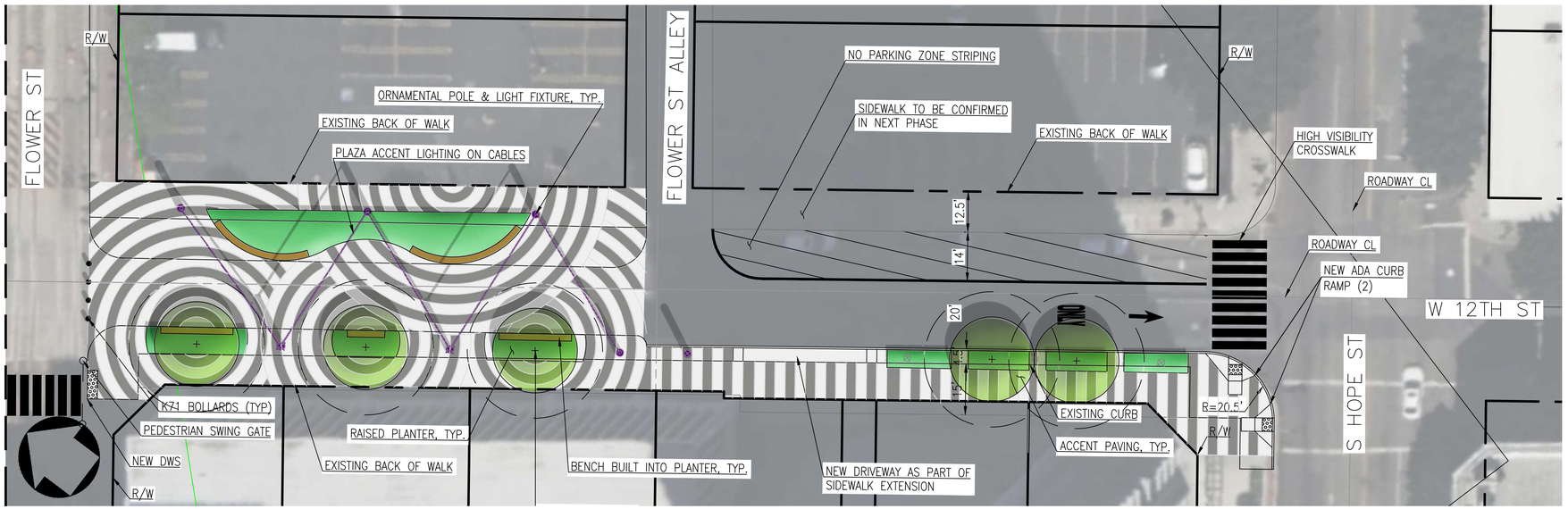
2028 GAMES MOBILITY
CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
12TH ST – DESIGN OPTION 1 –
LANDSCAPE IMPROVEMENTS

CONTRACT NO:
DRAWING NO: LP–102
REV:
SCALE: 1" = 20'
SHEET NO: 11 OF 13



12TH ST BETWEEN S FIGUEROA ST AND FLOWER ST



12TH ST BETWEEN FLOWER ST AND S HOPE ST

GENERAL NOTES

1. REFER TO LP-104 FOR DESCRIPTION OF LANDSCAPE IMPRVEMENTS CONCEPT, PRECEDENT EXAMPLES AND CONCEPT RENDERING.

ENGINEER'S GENERAL NOTES

1. THE EXISTENCE AND LOCATION OF ALL RIGHT OF WAY BOUNDARIES AND PARCEL BOUNDARIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF RECORDS. NO CERTIFICATIONS ARE MADE AS TO THE ACCURACY OR THOROUGHNESS OF THESE RECORDS.
2. THE EXISTENCE AND LOCATION OF ANY ROADWAY CENTERLINE SHOWN ON THESE PLANS ARE FOR SCHEMATIC PURPOSES ONLY AND WAS OBTAINED BY A SEARCH OF AVAILABLE RECORDS. NO CERTIFICATION IS MADE AS TO THE ACCURACY OR THOROUGHNESS OF THESE RECORDS.
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20' 10' 0 20' 40'
HORIZ: 1" = 20'

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY: M. ODUM
DRAWN BY: S. KUMMER
CHECKED BY: M. ODUM
IN CHARGE: C. HETLAND
DATE: 10/2/2025

NOT FOR CONSTRUCTION

Metro
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

Jacobs
555 S FLOWER ST, SUITE 3200
LOS ANGELES, CA 90071

2028 GAMES MOBILITY CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
12TH ST – DESIGN OPTION 2 – LANDSCAPE IMPROVEMENTS

CONTRACT NO
DRAWING NO: LP-103
REV
SCALE: 1" = 20'
SHEET NO: 12 OF 13

DESIGN OPTION 2 - DYNAMIC, VIBRANT, COLORFUL

DESIGN INSPIRATION – GLENARM PLAZA

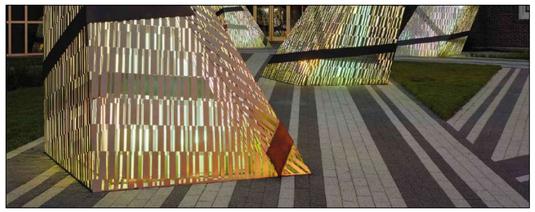
- PROPOSE ARENA/CIRCA CURVES INSTEAD OF ROCKY MOUNTAIN ANGLES
- PROPOSE PURPLE/BLUE/WHITE INSTEAD OF ORANGE/YELLOW
- PROPOSE CALIFORNIA NATIVE TREE SPECIES IN LIEU OF COLORADO NATIVES

TREES

- EVENLY SPACED 50' ON CENTER
- SHADE TOLERANT
- OPTION TO UPLIGHT

ENHANCED PAVING

- MORE DYNAMIC PAVING PATTERN IMPLIES MOVEMENT AND ACTIVITY
- CAST-IN-PLACE LITHOCRETE OR DURABLE UNIT PAVERS
- BOLDER PATTERN WITH LARGER PROPORTIONS
- HIGHER CONTRAST NEUTRAL COLOR PALETTE

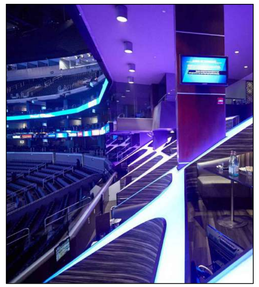


POLE LIGHT FIXTURES

- EVENLY SPACED 50' ON CENTER
- OPTION TO REPLACE EXISTING HISTORIC FIXTURES WITH BRIGHT WHITE FIXTURES TO MATCH VERTICAL ELEMENTS AT VENUE

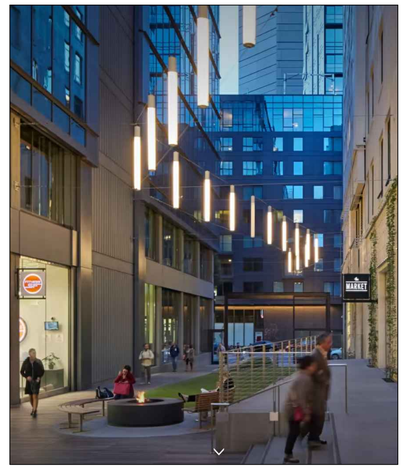
CURVED, SLIGHTLY CANTILEVERED RAISED PLANTERS

- POWDER COATED METAL (PURPLE AND/OR BLUE TO MATCH LAKERS/CRYPTO ARENA)
- INTEGRAL SEATING ELEMENT (PRECAST CONCRETE PREFERRED, LIGHTER COLOR)
- 18" HIGH ALONG FACE (PARALLEL TO PATH OF TRAVEL)
- TAPERING FROM 18" TO 0" AT END CAPS (PERPENDICULAR TO PATH OF TRAVEL)
- 'GAPS' AT POLE LIGHTS FOR EVENT VENDORS, FOOD TRUCKS, ETC



CONCEPTUAL RENDERING – WEST

CONCEPTUAL RENDERING – EAST



PLAZA ACCENT LIGHTING

- TENSION CABLE LIGHTS BETWEEN BRIGHT WHITE POSTS
- OMIT LIGHT FIXTURES AT 'CORNERS' TO IMPLY REVERSE CURVES

SCHEMATIC EXHIBIT - NOT FOR CONSTRUCTION

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY: M. ODUM
DRAWN BY: S. KUMMER
CHECKED BY: M. ODUM
IN CHARGE: C. HETLAND
DATE: 10/2/2025

NOT FOR CONSTRUCTION

Metro
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

Jacobs
555 S FLOWER ST, SUITE 3200
LOS ANGELES, CA 90071

2028 GAMES MOBILITY CONCEPT PLAN

CONCEPTUAL ENGINEERING DESIGN
2028 GAMES MOBILITY PROJECTS
12TH ST – DESIGN OPTION 2 – LANDSCAPE IMPROVEMENTS

CONTRACT NO:
DRAWING NO: LP-104
REV:
SCALE: 1" = 20'
SHEET NO: 13 OF 13

Appendix B. Traffic Counts

Prepared by National Data & Surveying Services

Olive/S Olive St & W Washington Blvd

Peak Hour Turning Movement Count

ID: 25-020402-001
City: Los Angeles

Day: Tuesday
Date: 11/4/2025

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 3:00 PM - 06:00 AM

SOUTHBOUND (Olive/S Olive St)

AM	0	0	0	0	708	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	683	PM
	0	0	0	0		

EASTBOUND (W Washington Blvd)

AM	NOON	PM	
892	0	875	
3	0	1	0
95	0	96	1
583	0	919	2
104	0	47	0
AM	NOON	PM	

WESTBOUND (W Washington Blvd)

PM	NOON	AM	
110	0	113	0
796	0	756	2
47	0	72	1
3	0	2	0
951	0	630	
PM	NOON	AM	

NORTHBOUND (Olive/S Olive St)

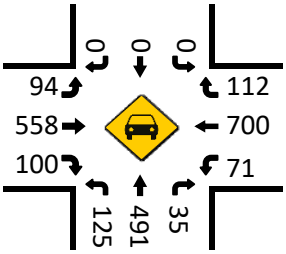
PM	94	0	78	477	29	PM
NOON	0	0	0	0	0	NOON
AM	176	0	133	500	45	AM
		0	0.5	2.5	0	

CONTROL

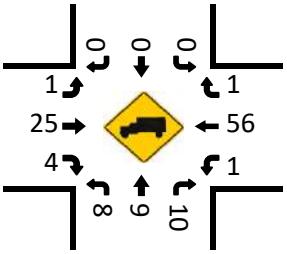
Signalized

TEV	2406 AM	0 NOON	2603 PM
PHF	0.96		0.97

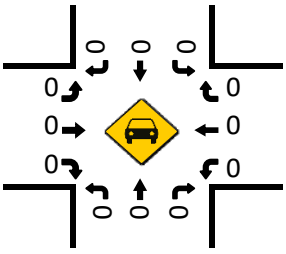
Cars (AM)



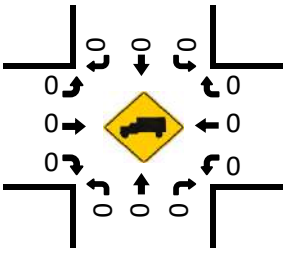
Total Trucks (AM)



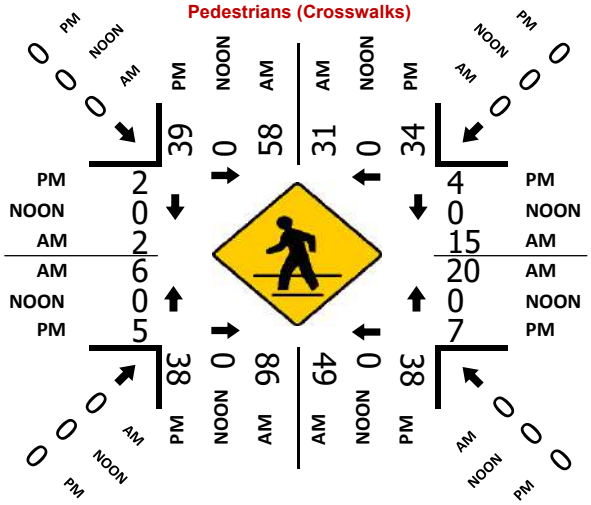
Cars (NOON)



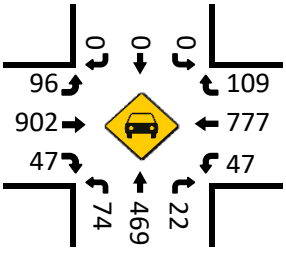
Total Trucks (NOON)



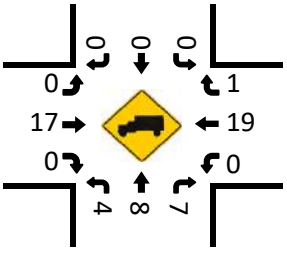
Pedestrians (Crosswalks)



Cars (PM)



Total Trucks (PM)



Prepared by National Data & Surveying Services

Olive/S Olive St & W 17th St

Peak Hour Turning Movement Count

ID: 25-020402-003
City: Los Angeles

Day: Tuesday
Date: 11/4/2025

	PEAK HOURS	COUNT PERIODS
AM	08:00 AM - 09:00 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	04:15 PM - 05:15 PM	3:00 PM - 06:00 AM

Olive/S Olive St — SOUTHBOUND

	Right	Thru	Left	U-Turn	Exiting (northbound)
AM	0	0	0	0	1427
NOON	0	0	0	0	0
PM	0	0	0	0	1074
(red)	0	0	0	0	

W 17th St — WESTBOUND

	(red)	PM	NOON	AM
Right	0	117	0	175
Thru	2	819	0	541
Left	0	0	0	0
U-Turn	0	0	0	0
Exiting (eastbound)		0	0	0

W 17th St — EASTBOUND

	AM	NOON	PM	(red)
Exiting (westbound)	748	0	1058	
U-Turn	0	0	0	0
Left	0	0	0	0
Thru	0	0	0	0
Right	0	0	0	0

Olive/S Olive St — NORTHBOUND

	Exiting (southbound)	U-Turn	Left	Thru	Right
(red)		0	0	3	0
PM	0	0	239	957	0
NOON	0	0	0	0	0
AM	0	0	207	1252	0

CONTROL

Signalized

	AM	NOON	PM
TEV	2175	0	2132
PHF	0.96		0.97

Cars and Total Trucks

Approach / Movement	Cars (AM)	Cars (NOON)	Cars (PM)	Total Trucks (AM)	Total Trucks (NOON)	Total Trucks (PM)
SB Right	0	0	0	0	0	0
SB Thru	0	0	0	0	0	0
SB Left	0	0	0	0	0	0
EB Left	0	0	0	0	0	0
EB Thru	0	0	0	0	0	0
EB Right	0	0	0	0	0	0
WB Right	158	0	98	17	0	19
WB Thru	519	0	800	22	0	19
WB Left	0	0	0	0	0	0
NB Left	199	0	233	8	0	6
NB Thru	1225	0	929	27	0	28
NB Right	0	0	0	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	Eastbound	25	0	18
North	Westbound	1	0	4
West	Southbound	2	0	0
West	Northbound	2	0	1
East	Southbound	0	0	1
East	Northbound	39	0	4
South	Eastbound	6	0	0
South	Westbound	4	0	0
NW corner (diagonal)		0	0	0
NE corner (diagonal)		0	0	0
SW corner (diagonal)		0	0	0
SE corner (diagonal)		0	0	0

Prepared by National Data & Surveying Services

L.A. Live Way/I 10 WB Off-ramp/Santa Monica Fwy/SR 110/I 110 NB Off-ramp/Harbor Fwy & S Hall Dr/Convention Center Dr/Bond St

Peak Hour Turning Movement Count

ID: 25-020402-004
City: Los Angeles

Day: Tuesday
Date: 11/4/2025

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	03:45 PM - 04:45 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	3:00 PM - 06:00 AM

SOUTHBOUND — L.A. Live Way/I 10 WB Off-ramp/Santa Monica Fwy/SR 110/I 110 NB Off-ramp/Harbor Fwy

AM	0	0	0	0	1157	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	1198	PM

EASTBOUND — S Hall Dr/Convention Center Dr/Bond St

AM	NOON	PM	
4	0	0	
0	0	0	0
1	0	0	0
2	0	0	1
0	0	0	0
AM	NOON	PM	

WESTBOUND — S Hall Dr/Convention Center Dr/Bond St

PM	NOON	AM	
37	0	12	1.5
0	0	4	0.5
0	0	0	0
0	0	0	0
1	0	5	
PM	NOON	AM	

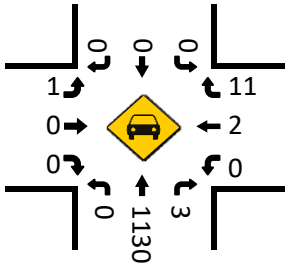
CONTROL: Signalized

TEV	1166 AM	0 NOON	1199 PM
PHF	0.91		0.95

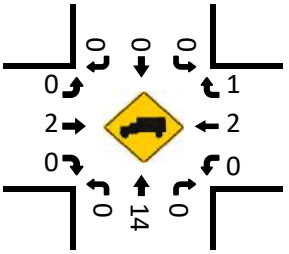
0	0	2	0		
0	0	0	1161	1	PM
0	0	0	0	0	NOON
0	0	0	1144	3	AM

NORTHBOUND — L.A. Live Way/I 10 WB Off-ramp/Santa Monica Fwy/SR 110/I 110 NB Off-ramp/Harbor Fwy

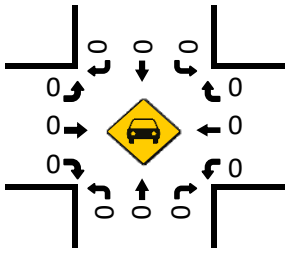
Cars (AM)



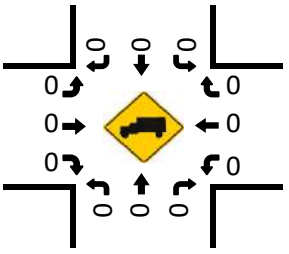
Total Trucks (AM)



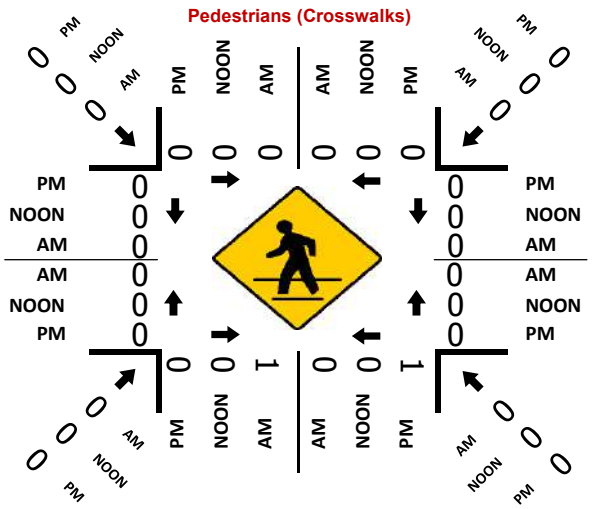
Cars (NOON)



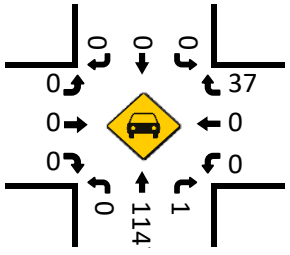
Total Trucks (NOON)



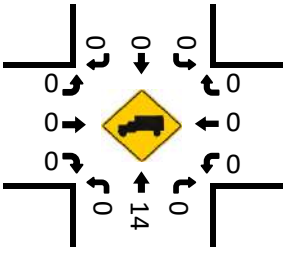
Pedestrians (Crosswalks)



Cars (PM)



Total Trucks (PM)



Prepared by National Data & Surveying Services

S Los Angeles St & E 17th St/I 10 WB Off-ramp/Santa Monica Fwy

Peak Hour Turning Movement Count

ID: 25-020402-005
City: Los Angeles

Day: Tuesday
Date: 11/4/2025

PEAK HOURS
AM: 08:15 AM - 09:15 AM
NOON: NONE
PM: 04:00 PM - 05:00 PM

COUNT PERIODS
AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 3:00 PM - 06:00 AM

CONTROL: Signalized

	1301	0	1661
TEV	AM	NOON	PM
PHF	0.93		0.94

SOUTHBOUND (S Los Angeles St)

	↰	↓	↱	↱	⇧
AM	58	216	0	0	305
NOON	0	0	0	0	0
PM	139	602	0	0	210
	0	2	0	0	

EASTBOUND (E 17th St/I 10 WB Off-ramp/Santa Monica Fwy)

	AM	NOON	PM	
⇦	720	0	656	
↰	0	0	0	0
↱	0	0	0	0
→	0	0	0	0
↱	0	0	0	0
	AM	NOON	PM	

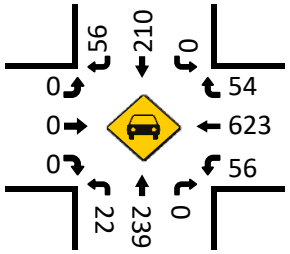
WESTBOUND (E 17th St/I 10 WB Off-ramp/Santa Monica Fwy)

	PM	NOON	AM	
↰	51	0	55	0.5
←	503	0	640	1
↰	193	0	60	0.5
↰	0	0	0	0
⇨	0	0	0	
	PM	NOON	AM	

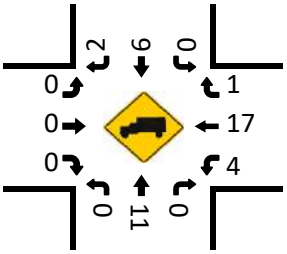
NORTHBOUND (S Los Angeles St)

	↰	↰	↑	↱	
PM	795	0	14	159	0
NOON	0	0	0	0	0
AM	276	0	22	250	0
	0	1	2	0	

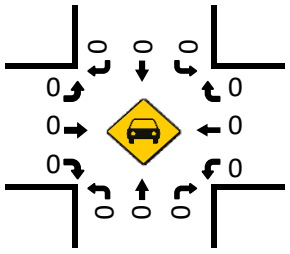
Cars (AM)



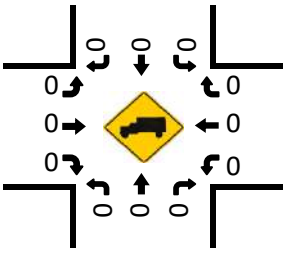
Total Trucks (AM)



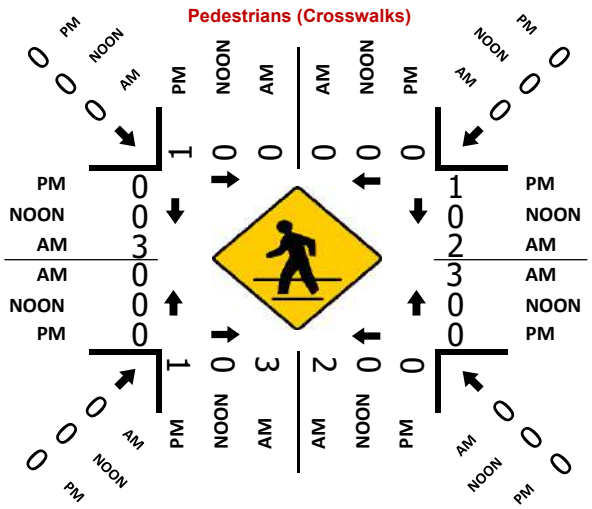
Cars (NOON)



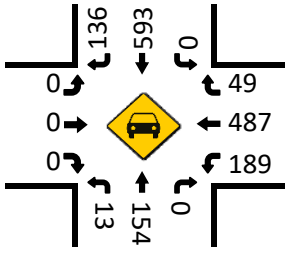
Total Trucks (NOON)



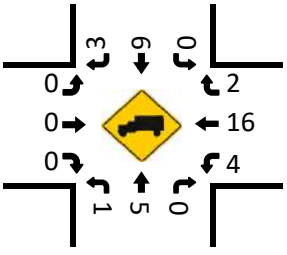
Pedestrians (Crosswalks)



Cars (PM)



Total Trucks (PM)



Prepared by National Data & Surveying Services

S Grand Ave & Hope St/S Hope St/W 17th St/I 10 WB On-ramp/Santa Monica Fwy

Peak Hour Turning Movement Count

ID: 25-020402-006
City: Los Angeles

Day: Tuesday
Date: 11/4/2025

PEAK HOURS
AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 04:15 PM - 05:15 PM

COUNT PERIODS
AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 3:00 PM - 06:00 AM

CONTROL: Signalized

	AM	NOON	PM
TEV	1172	0	2436
PHF	0.95		0.97

SOUTHBOUND (S Grand Ave)

	Left	Thru	Right	U-turn	Peds	
AM	289	217	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	601	690	0	0	0	PM

EASTBOUND (Hope St/S Hope St/W 17th St/I 10 WB On-ramp/Santa Monica Fwy)

	Left	Thru	Right	U-turn	
AM	886	0	1691		AM
NOON	0	0	0	0	NOON
PM	0	0	0	0	PM
	0	0	0	0	
	0	0	0	0	

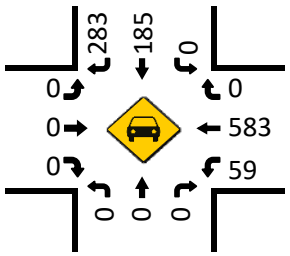
WESTBOUND (Hope St/S Hope St/W 17th St/I 10 WB On-ramp/Santa Monica Fwy)

	Left	Thru	Right	U-turn	
PM	0	0	0	0	PM
NOON	1090	0	597	2	NOON
AM	55	0	69	0	AM
	0	0	0	0	
	0	0	0		

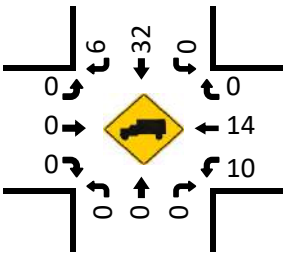
NORTHBOUND (S Grand Ave)

	Left	Thru	Right	U-turn	Peds	
PM	745	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	286	0	0	0	0	AM

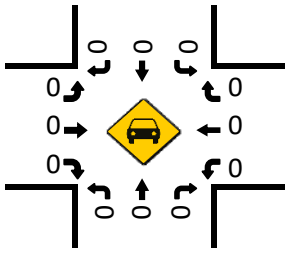
Cars (AM)



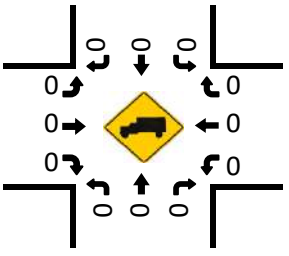
Total Trucks (AM)



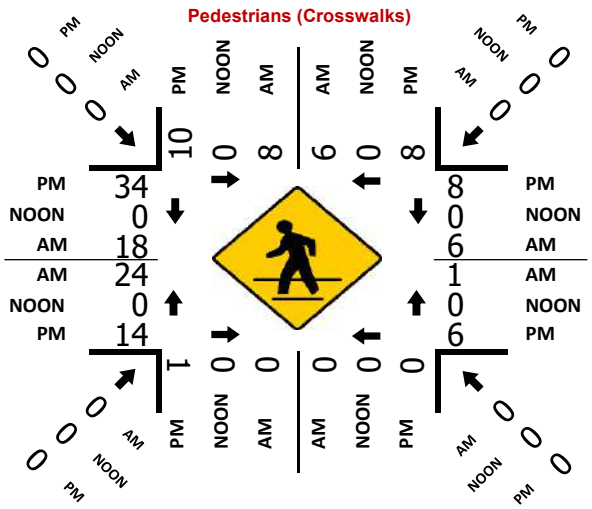
Cars (NOON)



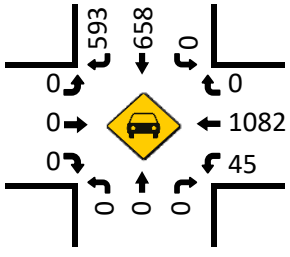
Total Trucks (NOON)



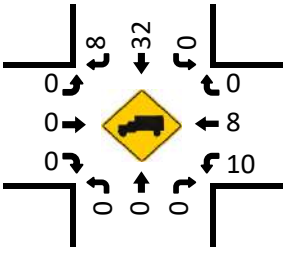
Pedestrians (Crosswalks)



Cars (PM)



Total Trucks (PM)



Prepared by National Data & Surveying Services

Maple Ave & E 18th St/I 10 EB Off-ramp/Santa Monica Fwy

Peak Hour Turning Movement Count

ID: 25-020402-007
City: Los Angeles

Day: Tuesday
Date: 11/4/2025

PEAK HOURS	COUNT PERIODS
08:15 AM - 09:15 AM	7:00 AM - 10:00 AM
NONE	NONE
04:30 PM - 05:30 PM	3:00 PM - 06:00 AM

CONTROL: Signalized

	AM	NOON	PM
TEV	1278	0	1122
PHF	0.95		0.92

SOUTHBOUND (Maple Ave)

	Left	Thru	Right	U-turn	Total	
AM	0	99	0	0	962	AM
NOON	0	0	0	0	0	NOON
PM	0	285	0	0	677	PM

EASTBOUND (E 18th St/I 10 EB Off-ramp/Santa Monica Fwy)

	Left	Thru	Right	
AM	0	0	0	
NOON	0	0	0	
PM	0	2	0	0

	Left	Thru	Right	
AM	0	0	0	0
NOON	435	0	175	2
PM	0	0	0	0
AM	217	0	160	1
NOON				
PM				

WESTBOUND (E 18th St/I 10 EB Off-ramp/Santa Monica Fwy)

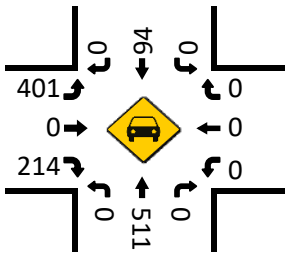
	Left	Thru	Right	
PM	0	0	0	0
NOON	0	0	0	0
AM	0	0	0	0
PM	0	0	0	0
NOON				
AM				

NORTHBOUND (Maple Ave)

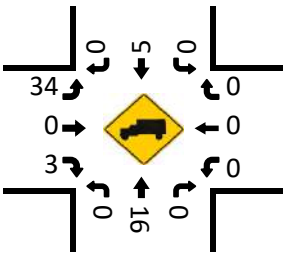
	Left	Thru	Right	U-turn	Total	
PM	445	0	0	502	0	PM
NOON	0	0	0	0	0	NOON
AM	316	0	0	527	0	AM

0 0 1 0

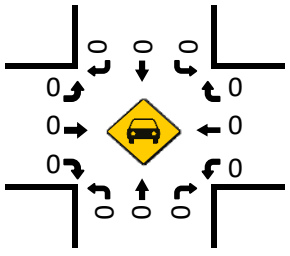
Cars (AM)



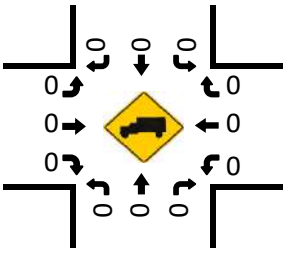
Total Trucks (AM)



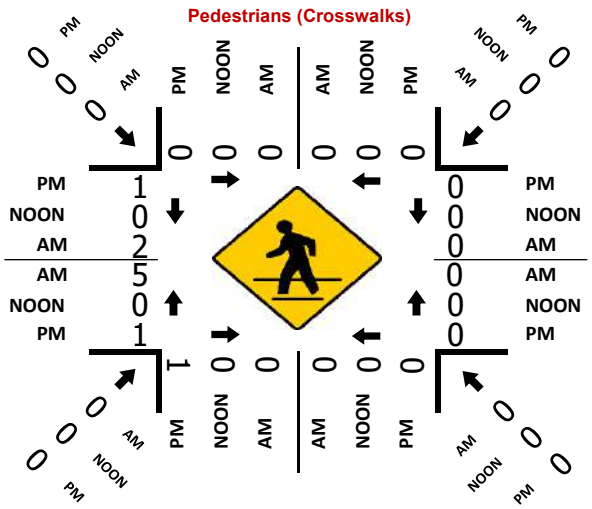
Cars (NOON)



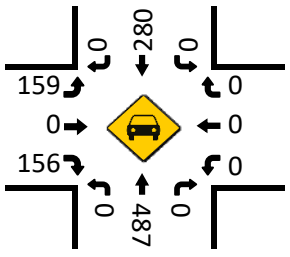
Total Trucks (NOON)



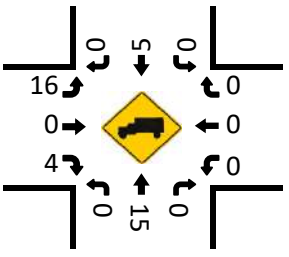
Pedestrians (Crosswalks)



Cars (PM)



Total Trucks (PM)



Prepared by National Data & Surveying Services

Maple Ave & E Washington Blvd

Peak Hour Turning Movement Count

ID: 25-020402-008
City: Los Angeles

Day: Thursday
Date: 11/6/2025

PEAK HOURS

AM: 07:15 AM - 08:15 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 3:00 PM - 06:00 AM

SOUTHBOUND (Maple Ave)

AM	16	212	57	0	658	AM
NOON	0	0	0	0	0	NOON
PM	65	286	56	0	477	PM
	1	1	1	0		

EASTBOUND (E Washington Blvd)

AM	NOON	PM	
811	0	981	
4	0	3	0
20	0	20	1
359	0	362	2
50	0	152	0
AM	NOON	PM	

WESTBOUND (E Washington Blvd)

PM	NOON	AM	
225	0	321	0
850	0	736	2
47	0	46	1
4	0	2	0
440	0	454	
PM	NOON	AM	

NORTHBOUND (Maple Ave)

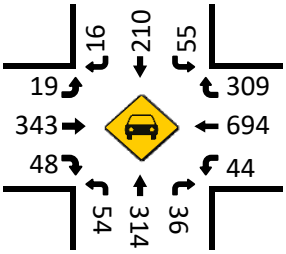
PM	485	0	63	232	18	PM
NOON	0	0	0	0	0	NOON
AM	308	0	55	317	36	AM
		0	1	1	1	

CONTROL

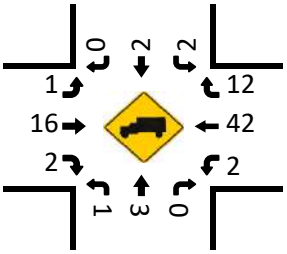
Signalized

TEV	2231 AM	0 NOON	2383 PM
PHF	0.95		0.98

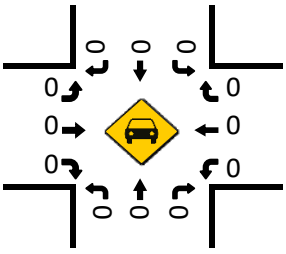
Cars (AM)



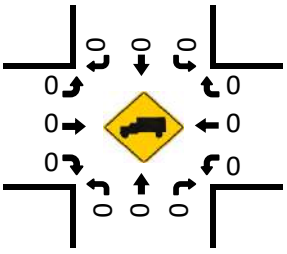
Total Trucks (AM)



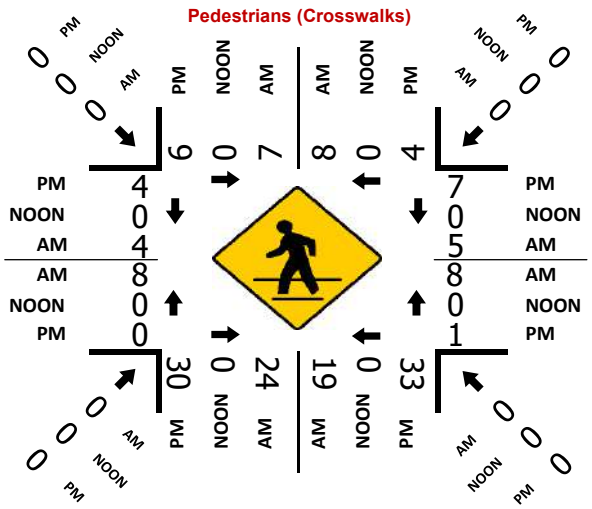
Cars (NOON)



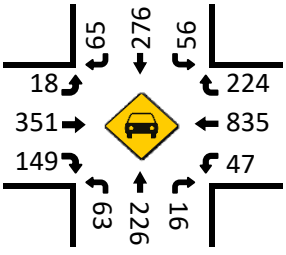
Total Trucks (NOON)



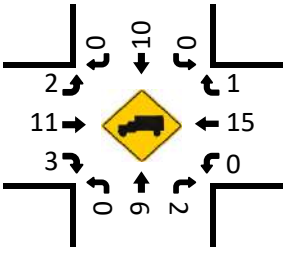
Pedestrians (Crosswalks)



Cars (PM)



Total Trucks (PM)



Prepared by National Data & Surveying Services

Flower St & Venice Blvd

Peak Hour Turning Movement Count

ID: 25-020402-009
City: Los Angeles

Day: Tuesday
Date: 11/4/2025

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	04:00 PM - 05:00 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	3:00 PM - 06:00 AM

CONTROL: Signalized

	AM	NOON	PM
TEV	1543	0	2501
PHF	0.95		0.96

SOUTHBOUND (Flower St)

	Left	Thru	Right	U-Turn	
AM	71	525	24	0	0
NOON	0	0	0	0	0
PM	77	1370	36	0	0

EASTBOUND (Venice Blvd)

	Left	Thru	Right	U-Turn	
AM	327	0	343		
NOON	0	0	0	0	0
PM	0	0	0	0	0
AM	303	0	397	2	
NOON	314	0	300	0	

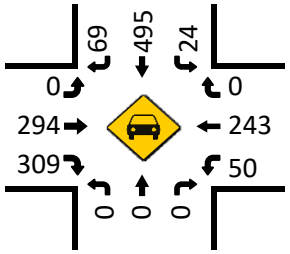
WESTBOUND (Venice Blvd)

	Left	Thru	Right	U-Turn	
PM	0	0	0	0	
NOON	266	0	256	2	
AM	55	0	50	0	
PM	0	0	0	0	
NOON	433	0	327		

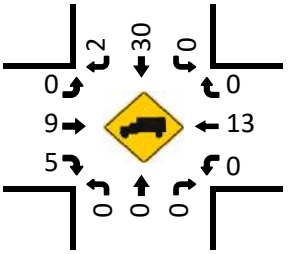
NORTHBOUND (Flower St)

	Left	Thru	Right	U-Turn	
PM	1725	0	0	0	0
NOON	0	0	0	0	0
AM	889	0	0	0	0

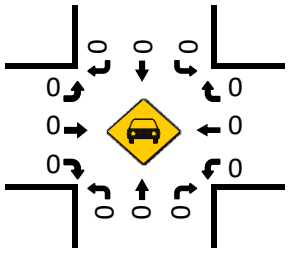
Cars (AM)



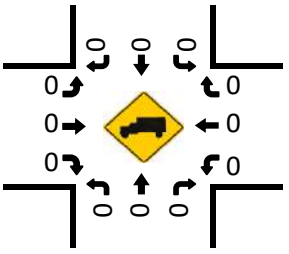
Total Trucks (AM)



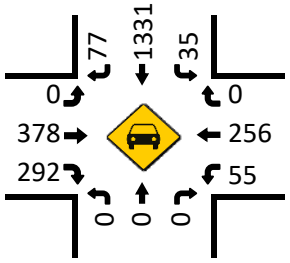
Cars (NOON)



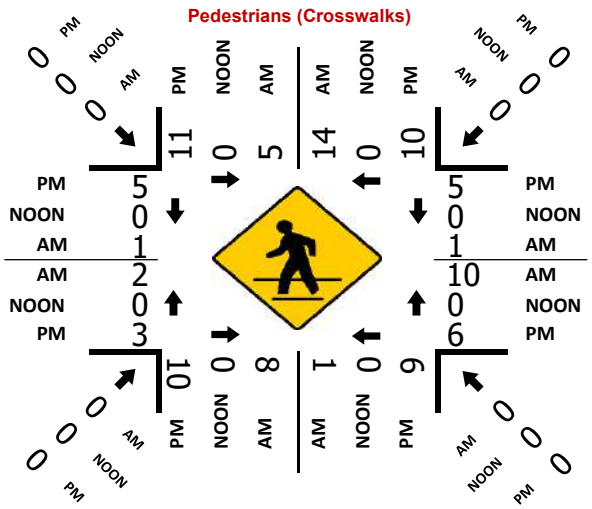
Total Trucks (NOON)



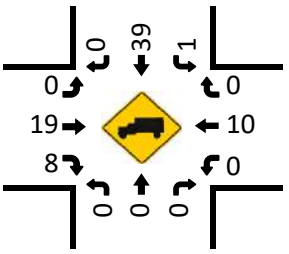
Cars (PM)



Pedestrians (Crosswalks)



Total Trucks (PM)



Prepared by National Data & Surveying Services

S Grand Ave & W 23rd St

Peak Hour Turning Movement Count

ID: 25-020402-010
City: Los Angeles

Day: Tuesday
Date: 11/4/2025

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	7:00 AM - 10:00 AM
NONE	NONE
04:30 PM - 05:30 PM	3:00 PM - 06:00 AM

SOUTHBOUND (S Grand Ave)

	L	T	R	U	Total	
AM	54	301	80	0	510	AM
NOON	0	0	0	0	0	NOON
PM	66	510	53	0	493	PM
	1	1	1	0		

EASTBOUND (W 23rd St)

AM	NOON	PM	
231	0	220	
0	0	0	0
43	0	32	1
116	0	135	1
81	0	130	1
AM	NOON	PM	

CONTROL

Signalized

TEV	1454 AM	0 NOON	1602 PM
PHF	0.85		0.95

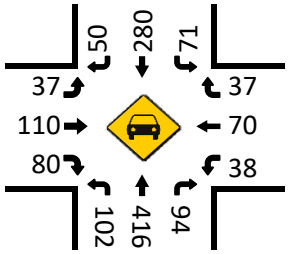
WESTBOUND (W 23rd St)

PM	NOON	AM	
17	0	39	0
79	0	74	1
18	0	40	0
0	0	0	0
231	0	291	
PM	NOON	AM	

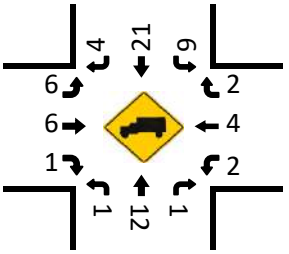
NORTHBOUND (S Grand Ave)

	L	T	T	R	Total	
PM	658	0	75	444	43	PM
NOON	0	0	0	0	0	NOON
AM	422	0	103	428	95	AM
		0	1	1	1	

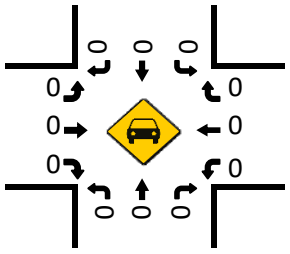
Cars (AM)



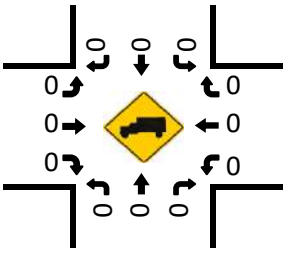
Total Trucks (AM)



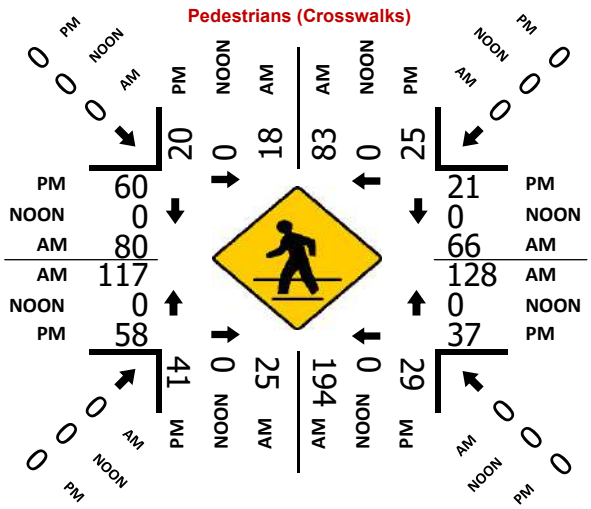
Cars (NOON)



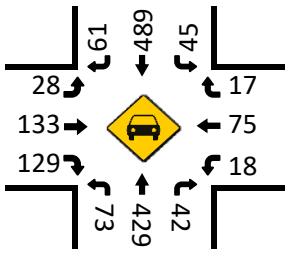
Total Trucks (NOON)



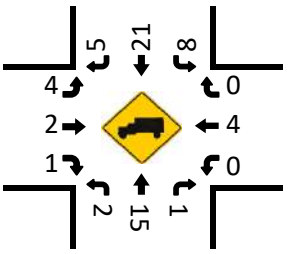
Pedestrians (Crosswalks)



Cars (PM)



Total Trucks (PM)



Prepared by National Data & Surveying Services

Flower St & W 23rd St

Peak Hour Turning Movement Count

ID: 25-020402-011
City: Los Angeles

Day: Wednesday
Date: 11/5/2025

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:15 PM - 05:15 PM

COUNT PERIODS

AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 3:00 PM - 06:00 AM

CONTROL: Signalized

	AM	NOON	PM
TEV	798	0	1703
PHF	0.94		0.96

SOUTHBOUND (Flower St)

	Left	Thru	Right	U-Turn	Total
AM	30	254	13	0	0
NOON	0	0	0	0	0
PM	53	1088	66	0	0

EASTBOUND (W 23rd St)

	Left	Thru	Right	U-Turn	Total
AM	251	0	239		
NOON	0	0	0		
PM	0	0	0	0	0
	0	0	0	0	0
	212	0	236	1	1
	46	0	48	0	0

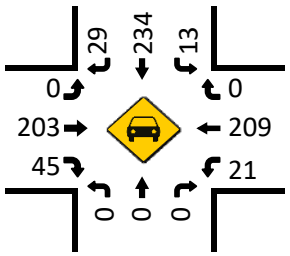
WESTBOUND (W 23rd St)

	Left	Thru	Right	U-Turn	Total
PM	0	0	0	0	0
NOON	186	0	221	1	1
AM	26	0	22	0	0
	0	0	0	0	0
	302	0	225		

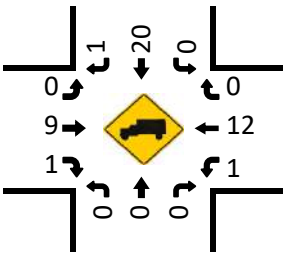
NORTHBOUND (Flower St)

	Left	Thru	Right	U-Turn	Total
PM	1162	0	0	0	0
NOON	0	0	0	0	0
AM	322	0	0	0	0

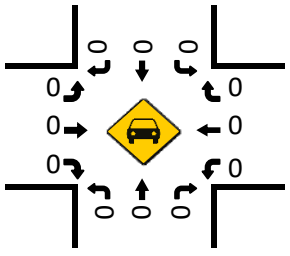
Cars (AM)



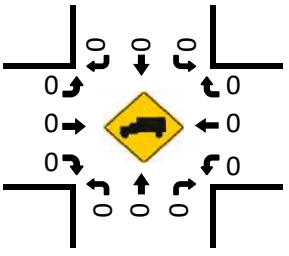
Total Trucks (AM)



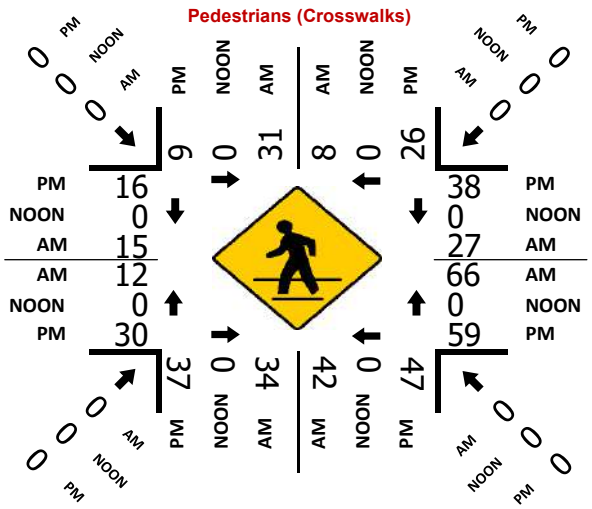
Cars (NOON)



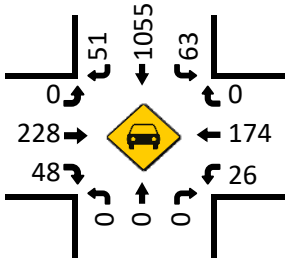
Total Trucks (NOON)



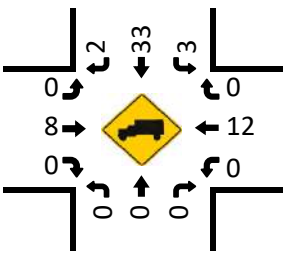
Pedestrians (Crosswalks)



Cars (PM)



Total Trucks (PM)



Prepared by National Data & Surveying Services

S Figueroa St & W Adams Blvd

Peak Hour Turning Movement Count

ID: 25-020402-012
City: Los Angeles

Day: Wednesday
Date: 11/5/2025

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	NONE
PM	03:15 PM - 04:15 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	3:00 PM - 06:00 AM

SOUTHBOUND (S Figueroa St)

AM	188	717	140	0	1335	AM
NOON	0	0	0	0	0	NOON
PM	106	748	126	0	1172	PM
	1	2	1	0		

EASTBOUND (W Adams Blvd)

AM	NOON	PM		
1067	0	935		
0	0	0	0	
210	0	147	1	
419	0	524	2	
131	0	145	0	
AM	NOON	PM		

WESTBOUND (W Adams Blvd)

	PM	NOON	AM
1	216	0	296
2	689	0	777
1	144	0	116
0	0	0	0
	714	0	597
	PM	NOON	AM

NORTHBOUND (S Figueroa St)

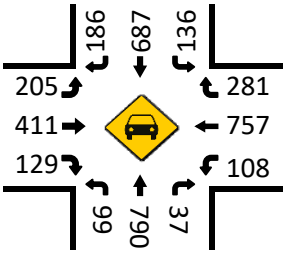
PM	1037	0	140	809	64	PM
NOON	0	0	0	0	0	NOON
AM	964	0	102	829	38	AM
		0	1	2	1	

CONTROL

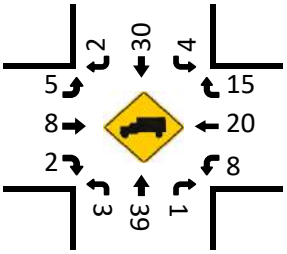
Signalized

TEV	3963 AM	0 NOON	3858 PM
PHF	0.96		0.97

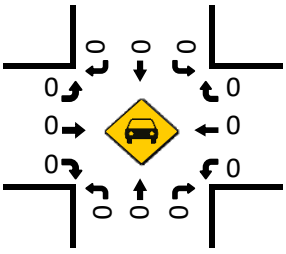
Cars (AM)



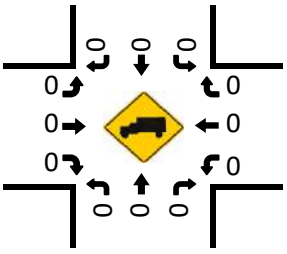
Total Trucks (AM)



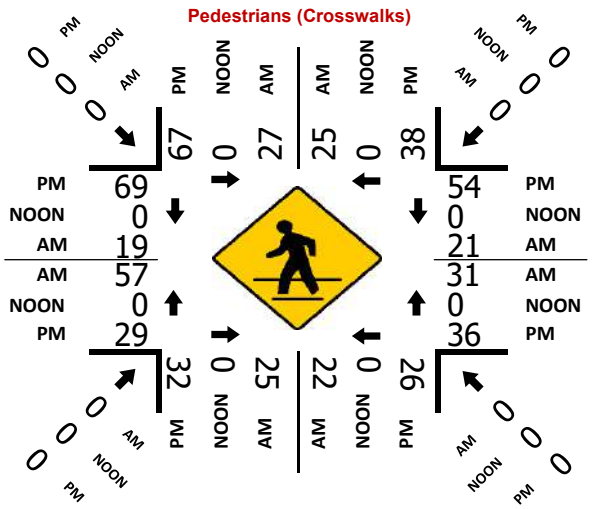
Cars (NOON)



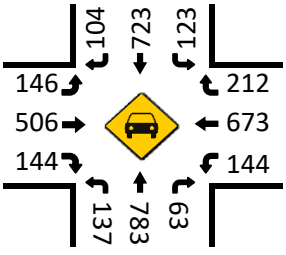
Total Trucks (NOON)



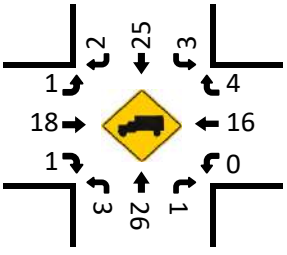
Pedestrians (Crosswalks)



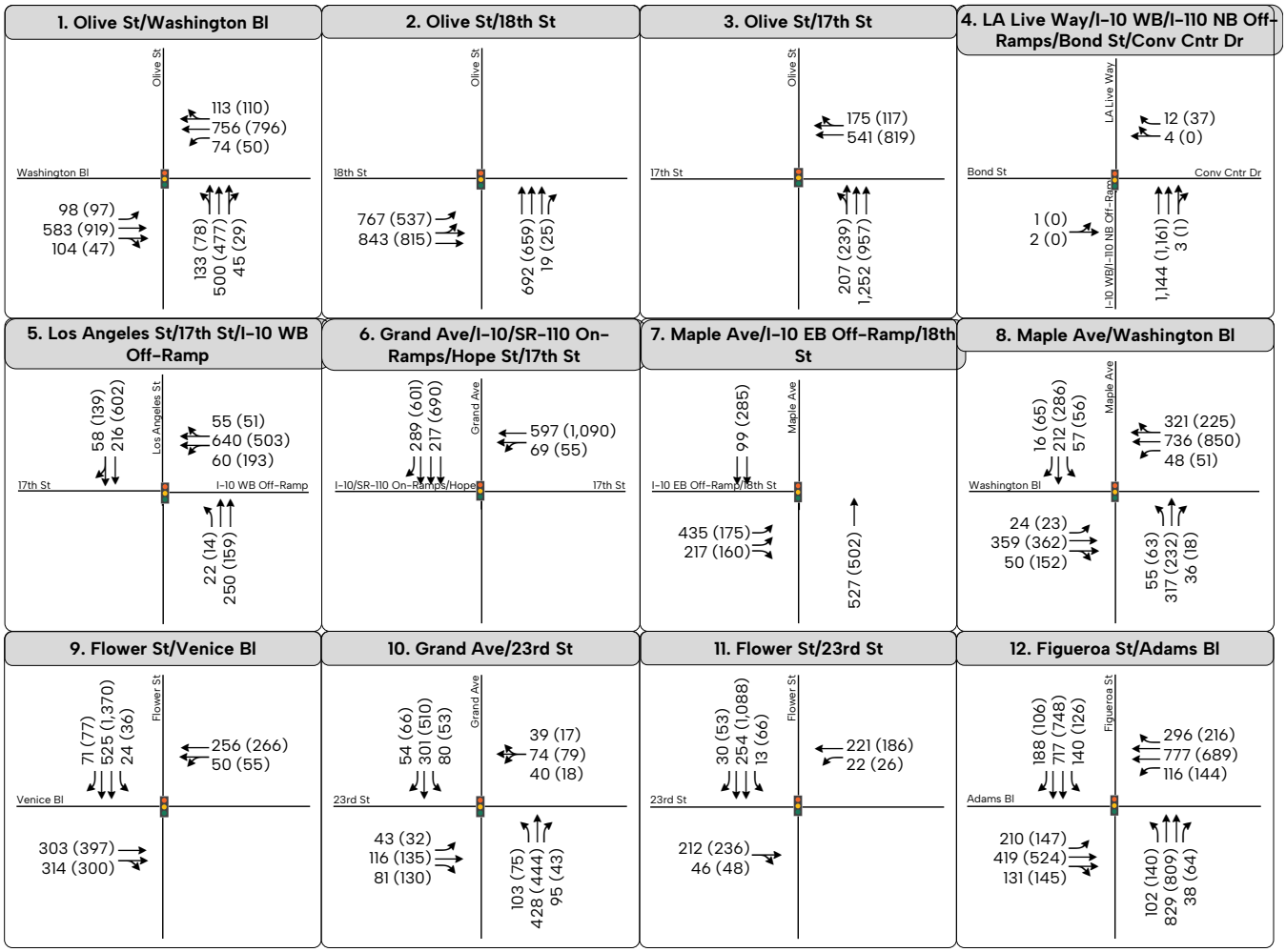
Cars (PM)



Total Trucks (PM)



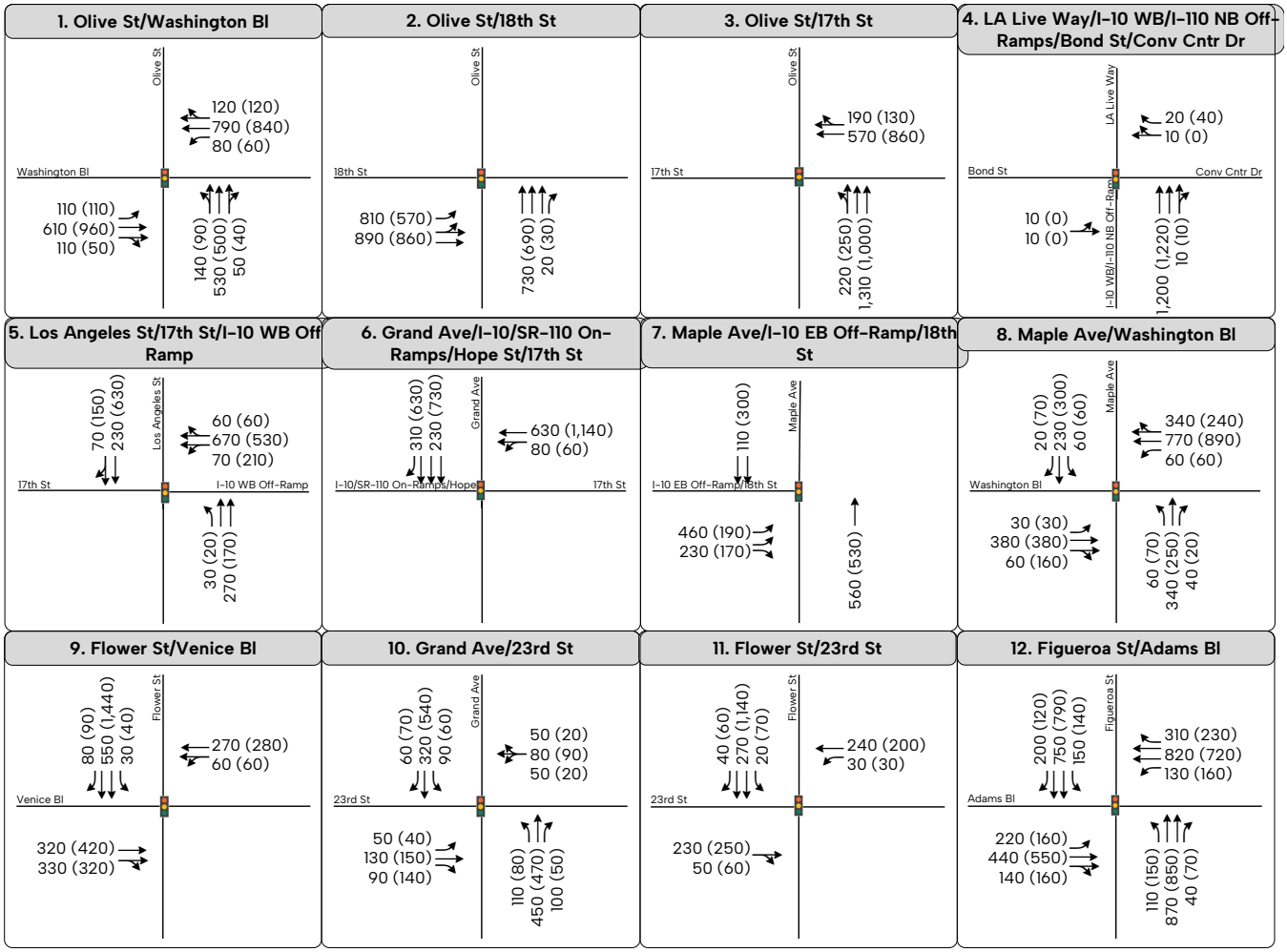
Appendix C. Intersection Turning Movement Volumes and Lane Configurations



LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized

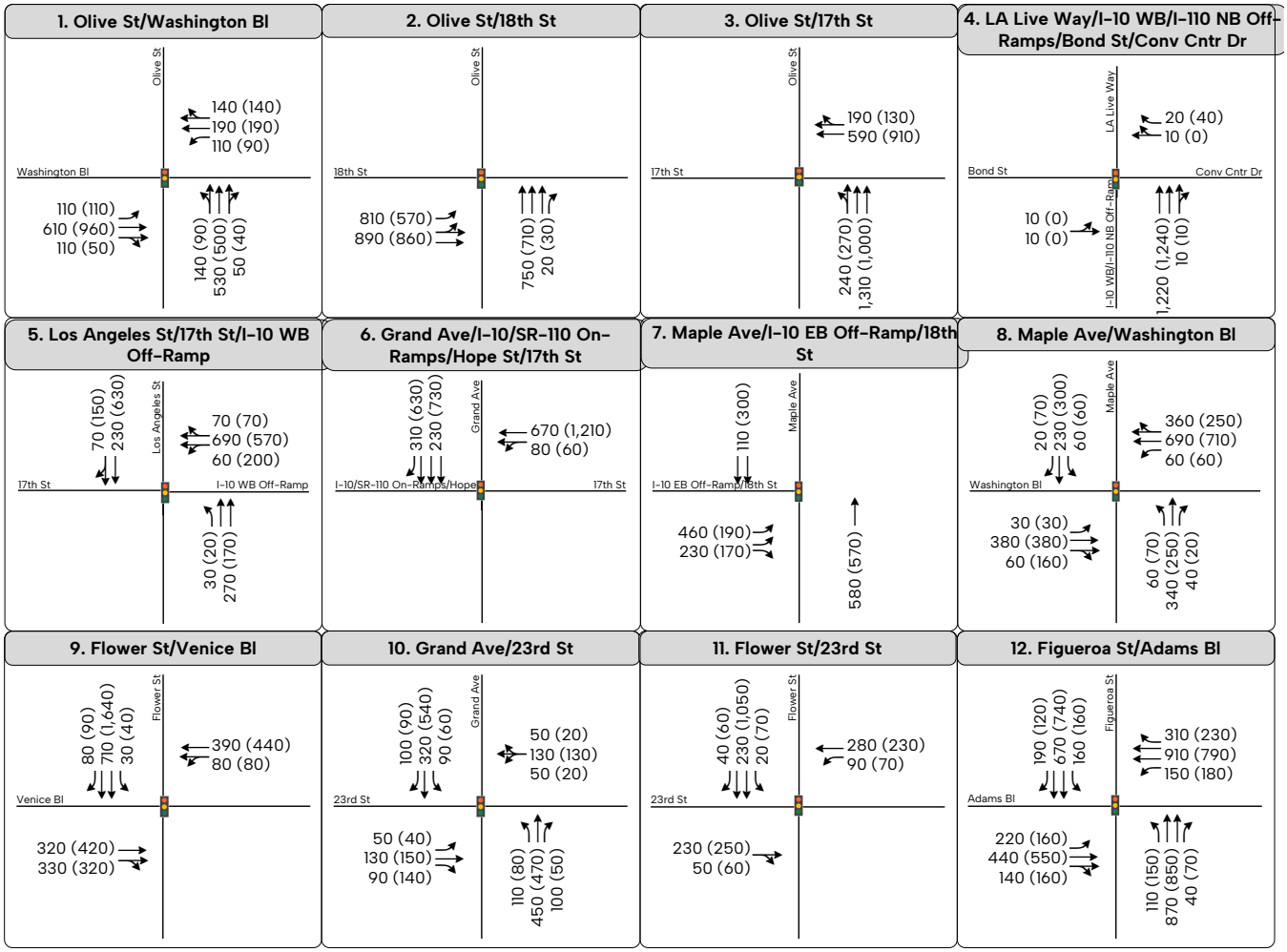
Peak Hour Traffic Volumes and Lane Configurations – Existing Year (2025) Volumes AM(PM)



LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized

Peak Hour Traffic Volumes and Lane Configurations – Future Year (2028) No Project Volumes AM(PM)

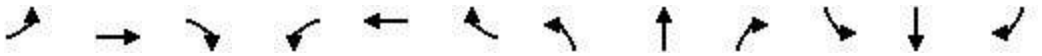


LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized

Peak Hour Traffic Volumes and Lane Configurations – Future Year (2028) With Project Volumes AM(PM)

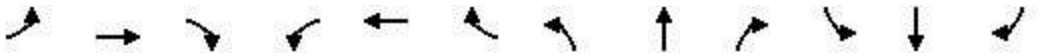
Appendix D. Intersection LOS/Delay and Queueing Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	583	104	74	756	113	133	500	45	0	0	0
Future Volume (vph)	98	583	104	74	756	113	133	500	45	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.2		5.4	5.2			5.6				
Lane Util. Factor	1.00	0.95		1.00	0.95			0.91				
Frpb, ped/bikes	1.00	0.93		1.00	0.98			1.00				
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00				
Frt	1.00	0.98		1.00	0.98			0.99				
Flt Protected	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (prot)	1662	2994		1662	3142			4620				
Flt Permitted	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (perm)	1662	2994		1662	3142			4620				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	102	607	108	77	788	118	139	521	47	0	0	0
RTOR Reduction (vph)	0	11	0	0	9	0	0	7	0	0	0	0
Lane Group Flow (vph)	102	704	0	77	897	0	0	700	0	0	0	0
Confl. Peds. (#/hr)			144			98	9		36	36		9
Confl. Bikes (#/hr)			3			1			3			
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	5	0	0	0	0
Turn Type	Prot	NA		Prot	NA		Perm	NA				
Protected Phases	5	2		1	6			4				
Permitted Phases							4					
Actuated Green, G (s)	11.8	70.0		8.8	67.4			25.0				
Effective Green, g (s)	11.8	70.0		8.8	67.4			25.0				
Actuated g/C Ratio	0.10	0.58		0.07	0.56			0.21				
Clearance Time (s)	5.0	5.2		5.4	5.2			5.6				
Vehicle Extension (s)	2.0	5.0		2.0	5.0			3.0				
Lane Grp Cap (vph)	163	1746		121	1764			962				
v/s Ratio Prot	c0.06	0.24		0.05	c0.29							
v/s Ratio Perm								0.15				
v/c Ratio	0.63	0.40		0.64	0.51			0.73				
Uniform Delay, d1	52.0	13.6		54.0	16.1			44.3				
Progression Factor	1.00	1.00		1.00	1.00			1.00				
Incremental Delay, d2	5.3	0.7		7.8	1.1			2.8				
Delay (s)	57.3	14.3		61.8	17.2			47.1				
Level of Service	E	B		E	B			D				
Approach Delay (s/veh)		19.7			20.7			47.1			0.0	
Approach LOS		B			C			D			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	27.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.2
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



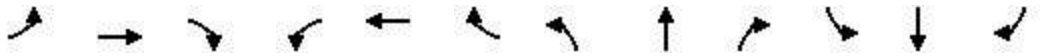
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	767	843	0	0	0	0	0	692	19	0	0	0
Future Volume (veh/h)	767	843	0	0	0	0	0	692	19	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.93			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1841	1841	0				0	1841	1841			
Adj Flow Rate, veh/h	553	1202	0				0	713	8			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	4	4	0				0	4	4			
Cap, veh/h	734	1541	0				0	2369	685			
Arrive On Green	0.42	0.42	0.00				0.00	0.47	0.47			
Sat Flow, veh/h	1753	3681	0				0	5191	1454			
Grp Volume(v), veh/h	553	1202	0				0	713	8			
Grp Sat Flow(s),veh/h/ln	1753	1841	0				0	1675	1454			
Q Serve(g_s), s	24.1	25.4	0.0				0.0	7.9	0.3			
Cycle Q Clear(g_c), s	24.1	25.4	0.0				0.0	7.9	0.3			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	734	1541	0				0	2369	685			
V/C Ratio(X)	0.75	0.78	0.00				0.00	0.30	0.01			
Avail Cap(c_a), veh/h	877	1841	0				0	2369	685			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.62	0.62			
Uniform Delay (d), s/veh	22.2	22.6	0.0				0.0	14.7	12.6			
Incr Delay (d2), s/veh	3.1	1.9	0.0				0.0	0.2	0.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.0	10.8	0.0				0.0	2.9	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.3	24.4	0.0				0.0	14.9	12.7			
LnGrp LOS	C	C						B	B			
Approach Vol, veh/h		1755						721				
Approach Delay, s/veh		24.7						14.8				
Approach LOS		C						B				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		42.7		47.3								
Change Period (Y+Rc), s		5.0		4.9								
Max Green Setting (Gmax), s		45.0		35.1								
Max Q Clear Time (g_c+I1), s		27.4		9.9								
Green Ext Time (p_c), s		10.3		5.4								

Intersection Summary	
HCM 7th Control Delay, s/veh	21.8
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	541	175	207	1252	0	0	0	0
Future Volume (veh/h)	0	0	0	0	541	175	207	1252	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1856	1856	1856	1856	0			
Adj Flow Rate, veh/h				0	564	176	216	1304	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	3	3	3	3	0			
Cap, veh/h				0	1052	327	299	1808	0			
Arrive On Green				0.00	0.40	0.40	0.13	0.13	0.00			
Sat Flow, veh/h				0	2715	815	738	4624	0			
Grp Volume(v), veh/h				0	378	362	532	988	0			
Grp Sat Flow(s),veh/h/ln				0	1763	1675	1819	1689	0			
Q Serve(g_s), s				0.0	14.7	14.8	25.2	25.2	0.0			
Cycle Q Clear(g_c), s				0.0	14.7	14.8	25.2	25.2	0.0			
Prop In Lane				0.00		0.49	0.41		0.00			
Lane Grp Cap(c), veh/h				0	707	672	738	1370	0			
V/C Ratio(X)				0.00	0.54	0.54	0.72	0.72	0.00			
Avail Cap(c_a), veh/h				0	707	672	738	1370	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.86	0.86	0.00			
Uniform Delay (d), s/veh				0.0	20.6	20.6	34.1	34.1	0.0			
Incr Delay (d2), s/veh				0.0	2.9	3.1	5.2	2.9	0.0			
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	6.4	6.1	13.3	11.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	23.4	23.7	39.3	37.0	0.0			
LnGrp LOS					C	C	D	D				
Approach Vol, veh/h					740			1520				
Approach Delay, s/veh					23.5			37.8				
Approach LOS					C			D				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	45.0	45.0
Change Period (Y+Rc), s	8.5	8.9
Max Green Setting (Gmax), s	36.5	36.1
Max Q Clear Time (g_c+I1), s	27.2	16.8
Green Ext Time (p_c), s	6.3	4.7

Intersection Summary	
HCM 7th Control Delay, s/veh	33.1
HCM 7th LOS	C

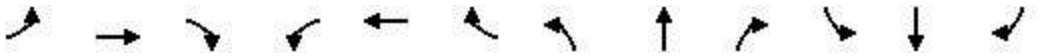
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	2	0	0	4	12	0	1144	3	0	0	0
Future Volume (vph)	1	2	0	0	4	12	0	1144	3	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2			4.1	4.1		5.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frpb, ped/bikes		1.00			1.00	1.00		1.00				
Flpb, ped/bikes		1.00			1.00	1.00		1.00				
Frt		1.00			0.92	0.85		1.00				
Flt Protected		0.98			1.00	1.00		1.00				
Satd. Flow (prot)		1771			1568	1454		4914				
Flt Permitted		1.00			1.00	1.00		1.00				
Satd. Flow (perm)		1801			1568	1454		4914				
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	1	2	0	0	4	13	0	1257	3	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	3	0	0	9	8	0	1260	0	0	0	0
Confl. Peds. (#/hr)			1	1								
Turn Type	Perm	NA			NA	Prot		NA				
Protected Phases		4			3	3		2				
Permitted Phases	4											
Actuated Green, G (s)		1.3			1.3	1.3		42.4				
Effective Green, g (s)		1.3			1.3	1.3		42.4				
Actuated g/C Ratio		0.02			0.02	0.02		0.73				
Clearance Time (s)		4.2			4.1	4.1		5.0				
Vehicle Extension (s)		3.0			3.0	3.0		5.0				
Lane Grp Cap (vph)		40			34	32		3573				
v/s Ratio Prot					c0.01	0.01		c0.26				
v/s Ratio Perm		c0.00										
v/c Ratio		0.08			0.26	0.25		0.35				
Uniform Delay, d1		27.9			28.0	28.0		2.9				
Progression Factor		1.00			1.00	1.00		1.00				
Incremental Delay, d2		0.8			4.1	4.1		0.3				
Delay (s)		28.7			32.2	32.1		3.2				
Level of Service		C			C	C		A				
Approach Delay (s/veh)		28.7			32.1			3.2			0.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	58.3	Sum of lost time (s)	13.3
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	60	640	55	22	250	0	0	216	58
Future Volume (vph)	0	0	0	60	640	55	22	250	0	0	216	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0		4.6	4.6			4.6	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.97	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3332		1687	3388			3105	
Flt Permitted					1.00		0.52	1.00			1.00	
Satd. Flow (perm)					3332		919	3388			3105	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	65	688	59	24	269	0	0	232	62
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	0	0	0	806	0	24	269	0	0	268	0
Confl. Peds. (#/hr)	1		6	6		1	4		6	6		4
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)											0	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					60.0		20.4	20.4			20.4	
Effective Green, g (s)					60.0		20.4	20.4			20.4	
Actuated g/C Ratio					0.67		0.23	0.23			0.23	
Clearance Time (s)					5.0		4.6	4.6			4.6	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					2221		208	767			703	
v/s Ratio Prot								0.08			c0.09	
v/s Ratio Perm					0.24		0.03					
v/c Ratio					0.36		0.12	0.35			0.38	
Uniform Delay, d1					6.6		27.6	29.2			29.5	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					0.5		1.1	1.3			1.6	
Delay (s)					7.1		28.8	30.5			31.0	
Level of Service					A		C	C			C	
Approach Delay (s/veh)		0.0			7.1			30.4			31.0	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	69	597	0	0	0	0	0	217	289
Future Volume (veh/h)	0	0	0	69	597	0	0	0	0	0	217	289
Initial Q (Qb), veh				0	0	0				0	0	0
Lane Width Adj.				1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1826	1826	0				0	1826	1826
Adj Flow Rate, veh/h				73	628	0				0	228	213
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				5	5	0				0	5	5
Cap, veh/h				164	1410	0				0	2094	619
Arrive On Green				0.15	0.15	0.00				0.00	0.42	0.42
Sat Flow, veh/h				369	3265	0				0	5149	1473
Grp Volume(v), veh/h				358	343	0				0	228	213
Grp Sat Flow(s),veh/h/ln				1807	1735	0				0	1662	1473
Q Serve(g_s), s				16.3	16.3	0.0				0.0	2.5	8.8
Cycle Q Clear(g_c), s				16.3	16.3	0.0				0.0	2.5	8.8
Prop In Lane				0.20		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				803	771	0				0	2094	619
V/C Ratio(X)				0.45	0.45	0.00				0.00	0.11	0.34
Avail Cap(c_a), veh/h				803	771	0				0	2094	619
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.79	0.79	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				28.3	28.3	0.0				0.0	15.9	17.7
Incr Delay (d2), s/veh				1.4	1.5	0.0				0.0	0.1	1.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.1	7.8	0.0				0.0	0.9	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				29.7	29.7	0.0				0.0	16.0	19.2
LnGrp LOS				C	C						B	B
Approach Vol, veh/h					701						441	
Approach Delay, s/veh					29.7						17.5	
Approach LOS					C						B	

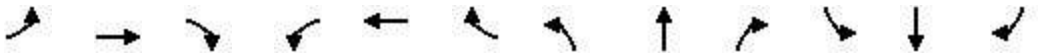
Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	44.0	46.0
Change Period (Y+Rc), s	6.2	6.0
Max Green Setting (Gmax), s	37.8	40.0
Max Q Clear Time (g_c+I1), s	10.8	18.3
Green Ext Time (p_c), s	2.3	4.5

Intersection Summary	
HCM 7th Control Delay, s/veh	25.0
HCM 7th LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	435	217	0	527	99	0
Future Volume (veh/h)	435	217	0	527	99	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	0	1826	1826	0
Adj Flow Rate, veh/h	458	65	0	555	104	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	0	5	5	0
Cap, veh/h	967	444	0	1116	2120	0
Arrive On Green	0.29	0.29	0.00	0.61	0.61	0.00
Sat Flow, veh/h	3374	1547	0	1826	3652	0
Grp Volume(v), veh/h	458	65	0	555	104	0
Grp Sat Flow(s),veh/h/ln	1687	1547	0	1826	1735	0
Q Serve(g_s), s	10.1	2.8	0.0	15.3	1.1	0.0
Cycle Q Clear(g_c), s	10.1	2.8	0.0	15.3	1.1	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	967	444	0	1116	2120	0
V/C Ratio(X)	0.47	0.15	0.00	0.50	0.05	0.00
Avail Cap(c_a), veh/h	967	444	0	1116	2120	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.46	1.00	0.00
Uniform Delay (d), s/veh	26.5	23.9	0.0	9.8	7.0	0.0
Incr Delay (d2), s/veh	1.7	0.7	0.0	0.7	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	1.1	0.0	5.7	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	28.2	24.6	0.0	10.5	7.1	0.0
LnGrp LOS	C	C		B	A	
Approach Vol, veh/h	523			555	104	
Approach Delay, s/veh	27.7			10.5	7.1	
Approach LOS	C			B	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		60.0		30.0		60.0
Change Period (Y+Rc), s		5.0		4.2		5.0
Max Green Setting (Gmax), s		55.0		25.8		55.0
Max Q Clear Time (g_c+I1), s		3.1		12.1		17.3
Green Ext Time (p_c), s		0.7		1.6		4.2

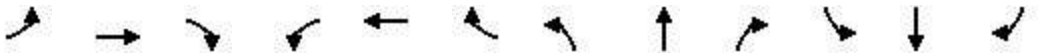
Intersection Summary		
HCM 7th Control Delay, s/veh	17.8	
HCM 7th LOS	B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	359	50	48	736	321	55	317	36	57	212	16
Future Volume (veh/h)	24	359	50	48	736	321	55	317	36	57	212	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.98	0.99		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	25	378	45	51	775	303	58	334	7	60	223	4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	83	1716	202	119	1392	544	208	437	357	129	437	322
Arrive On Green	0.05	0.55	0.55	0.07	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1753	3123	368	1753	2440	953	1121	1841	1504	1014	1841	1355
Grp Volume(v), veh/h	25	210	213	51	555	523	58	334	7	60	223	4
Grp Sat Flow(s),veh/h/ln	1753	1749	1743	1753	1749	1644	1121	1841	1504	1014	1841	1355
Q Serve(g_s), s	1.7	7.4	7.5	3.4	24.0	24.0	5.7	20.3	0.4	7.0	12.6	0.3
Cycle Q Clear(g_c), s	1.7	7.4	7.5	3.4	24.0	24.0	18.3	20.3	0.4	27.3	12.6	0.3
Prop In Lane	1.00		0.21	1.00		0.58	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	961	957	119	997	938	208	437	357	129	437	322
V/C Ratio(X)	0.30	0.22	0.22	0.43	0.56	0.56	0.28	0.76	0.02	0.46	0.51	0.01
Avail Cap(c_a), veh/h	172	961	957	172	997	938	208	437	357	129	437	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	55.3	13.8	13.9	53.7	16.2	16.2	47.6	42.6	35.0	55.3	39.7	35.0
Incr Delay (d2), s/veh	0.8	0.5	0.5	0.9	2.2	2.4	0.7	7.8	0.0	2.5	1.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.0	3.0	1.5	9.7	9.2	1.6	10.1	0.2	1.9	5.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.0	14.4	14.4	54.6	18.5	18.6	48.3	50.4	35.1	57.8	40.7	35.0
LnGrp LOS	E	B	B	D	B	B	D	D	D	E	D	D
Approach Vol, veh/h		448			1129			399			287	
Approach Delay, s/veh		16.7			20.2			49.9			44.2	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.4	71.6		34.0	11.9	74.1		34.0				
Change Period (Y+Rc), s	6.2	5.7		5.5	6.2	5.7		5.5				
Max Green Setting (Gmax), s	11.8	62.3		28.5	11.8	62.3		28.5				
Max Q Clear Time (g_c+I1), s	5.4	9.5		22.3	3.7	26.0		29.3				
Green Ext Time (p_c), s	0.0	5.1		1.2	0.0	16.0		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			27.8									
HCM 7th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	303	314	50	256	0	0	0	0	24	525	71
Future Volume (vph)	0	303	314	50	256	0	0	0	0	24	525	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.9			5.9					4.9	4.7	4.7
Lane Util. Factor		0.95			0.95					1.00	0.95	1.00
Frpb, ped/bikes		0.98			1.00					1.00	1.00	0.98
Flpb, ped/bikes		1.00			1.00					1.00	1.00	1.00
Frt		0.92			1.00					1.00	1.00	0.85
Flt Protected		1.00			0.99					0.95	1.00	1.00
Satd. Flow (prot)		3040			3324					1678	3355	1409
Flt Permitted		1.00			0.69					0.95	1.00	1.00
Satd. Flow (perm)		3040			2322					1678	3355	1409
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	319	331	53	269	0	0	0	0	25	553	75
RTOR Reduction (vph)	0	158	0	0	0	0	0	0	0	0	0	32
Lane Group Flow (vph)	0	492	0	0	322	0	0	0	0	25	553	43
Confl. Peds. (#/hr)	25		15	15		25	4		12			4
Confl. Bikes (#/hr)			2			1						3
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	10
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		4			8					5	2	
Permitted Phases				8								2
Actuated Green, G (s)		40.1			40.1					12.7	69.3	69.3
Effective Green, g (s)		40.1			40.1					12.7	69.3	69.3
Actuated g/C Ratio		0.33			0.33					0.11	0.58	0.58
Clearance Time (s)		5.9			5.9					4.9	4.7	4.7
Vehicle Extension (s)		5.8			5.8					2.0	4.9	4.9
Lane Grp Cap (vph)		1015			775					177	1937	813
v/s Ratio Prot		c0.16								0.01	c0.16	
v/s Ratio Perm					0.14							0.03
v/c Ratio		0.48			0.42					0.14	0.29	0.05
Uniform Delay, d1		31.7			30.9					48.7	12.8	11.1
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		1.7			1.6					0.1	0.4	0.1
Delay (s)		33.4			32.5					48.8	13.2	11.2
Level of Service		C			C					D	B	B
Approach Delay (s/veh)		33.4			32.5			0.0			14.3	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

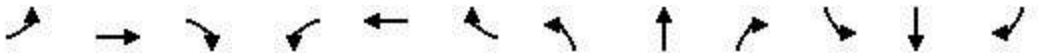
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	116	81	40	74	39	103	428	95	80	301	54
Future Volume (veh/h)	43	116	81	40	74	39	103	428	95	80	301	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.71		0.50	0.66		0.52	0.96		0.85	0.99		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.96	1.00	1.00	0.94
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	51	136	19	47	87	31	121	504	100	94	354	44
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	238	426	182	101	150	46	604	1189	819	489	1189	784
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.65	0.65	0.65	0.65	0.65	0.65
Sat Flow, veh/h	883	1826	780	214	645	199	923	1826	1257	789	1826	1204
Grp Volume(v), veh/h	51	136	19	165	0	0	121	504	100	94	354	44
Grp Sat Flow(s),veh/h/ln	883	1826	780	1057	0	0	923	1826	1257	789	1826	1204
Q Serve(g_s), s	0.0	5.6	1.7	6.9	0.0	0.0	5.9	12.0	2.7	5.9	7.5	1.2
Cycle Q Clear(g_c), s	7.2	5.6	1.7	12.4	0.0	0.0	13.4	12.0	2.7	17.8	7.5	1.2
Prop In Lane	1.00		1.00	0.28		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	426	182	298	0	0	604	1189	819	489	1189	784
V/C Ratio(X)	0.21	0.32	0.10	0.55	0.00	0.00	0.20	0.42	0.12	0.19	0.30	0.06
Avail Cap(c_a), veh/h	245	438	187	305	0	0	604	1189	819	489	1189	784
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)	0.36	0.36	0.36	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	28.6	27.1	30.9	0.0	0.0	9.7	7.6	5.9	11.8	6.8	5.7
Incr Delay (d2), s/veh	0.2	0.2	0.1	2.1	0.0	0.0	0.7	1.1	0.3	0.9	0.6	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	0.9	2.4	0.3	3.4	0.0	0.0	1.2	4.3	0.7	1.1	2.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.4	28.7	27.2	33.0	0.0	0.0	10.4	8.7	6.2	12.7	7.4	5.8
LnGrp LOS	C	C	C	C			B	A	A	B	A	A
Approach Vol, veh/h		206			165			725			492	
Approach Delay, s/veh		28.8			33.0			8.6			8.3	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.6		26.4		63.6		26.4				
Change Period (Y+Rc), s		5.0		5.4		5.0		5.4				
Max Green Setting (Gmax), s		58.0		21.6		58.0		21.6				
Max Q Clear Time (g_c+I1), s		19.8		14.4		15.4		9.2				
Green Ext Time (p_c), s		4.9		0.6		10.9		0.9				

Intersection Summary	
HCM 7th Control Delay, s/veh	13.7
HCM 7th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	212	46	22	221	0	0	0	0	13	254	30
Future Volume (vph)	0	212	46	22	221	0	0	0	0	13	254	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Lane Util. Factor		1.00		1.00	1.00					1.00	0.95	1.00
Frpb, ped/bikes		0.98		1.00	1.00					1.00	1.00	0.86
Flpb, ped/bikes		1.00		0.94	1.00					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		1485		1544	1719					1646	3292	1232
Flt Permitted		1.00		0.29	1.00					0.95	1.00	1.00
Satd. Flow (perm)		1485		471	1719					1646	3292	1232
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	226	49	23	235	0	0	0	0	14	270	32
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	0	0	0	9
Lane Group Flow (vph)	0	269	0	23	235	0	0	0	0	14	270	23
Confl. Peds. (#/hr)	44		81	81		44	31		97			31
Confl. Bikes (#/hr)			4			3			3			4
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	2	0	0	0	0	0	0	8
Parking (#/hr)		0	0									
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		8			4					5	2	
Permitted Phases				4								2
Actuated Green, G (s)		23.7		23.7	23.7					10.0	86.4	86.4
Effective Green, g (s)		23.7		23.7	23.7					10.0	86.4	86.4
Actuated g/C Ratio		0.20		0.20	0.20					0.08	0.72	0.72
Clearance Time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		293		93	339					137	2370	887
v/s Ratio Prot		c0.18			0.14					0.01	c0.08	
v/s Ratio Perm				0.05								0.02
v/c Ratio		0.92		0.25	0.69					0.10	0.11	0.03
Uniform Delay, d1		47.2		40.6	44.8					50.8	5.1	4.8
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		31.5		1.4	6.0					0.3	0.1	0.1
Delay (s)		78.6		42.0	50.8					51.2	5.2	4.8
Level of Service		E		D	D					D	A	A
Approach Delay (s/veh)		78.6			50.0			0.0			7.2	
Approach LOS		E			D			A			A	

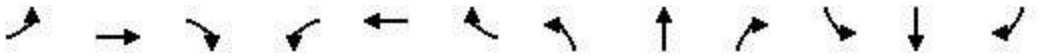
Intersection Summary			
HCM 2000 Control Delay (s/veh)	43.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	419	131	116	777	296	102	829	38	140	717	188
Future Volume (veh/h)	210	419	131	116	777	296	102	829	38	140	717	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.93	0.98		0.92	1.00		0.91	1.00		0.90
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.96	1.00	1.00	0.96
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	219	436	111	121	809	308	106	864	40	146	747	196
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	258	784	197	304	893	504	131	1058	516	172	1140	600
Arrive On Green	0.10	0.29	0.29	0.07	0.25	0.25	0.07	0.30	0.30	0.10	0.32	0.32
Sat Flow, veh/h	1767	2701	679	1767	3526	1401	1767	3526	1386	1767	3526	1371
Grp Volume(v), veh/h	219	283	264	121	809	308	106	864	40	146	747	196
Grp Sat Flow(s),veh/h/ln	1767	1763	1617	1767	1763	1401	1767	1763	1386	1767	1763	1371
Q Serve(g_s), s	10.8	16.3	16.6	6.0	26.7	22.0	7.1	27.3	2.3	9.8	21.8	11.5
Cycle Q Clear(g_c), s	10.8	16.3	16.6	6.0	26.7	22.0	7.1	27.3	2.3	9.8	21.8	11.5
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	258	512	469	304	893	504	131	1058	516	172	1140	600
V/C Ratio(X)	0.85	0.55	0.56	0.40	0.91	0.61	0.81	0.82	0.08	0.85	0.66	0.33
Avail Cap(c_a), veh/h	258	512	469	370	925	517	188	1058	516	188	1140	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	36.0	36.1	30.5	43.4	32.4	54.7	38.9	24.8	53.3	34.9	23.0
Incr Delay (d2), s/veh	22.4	1.3	1.5	0.8	12.1	2.0	15.5	7.0	0.3	26.9	2.9	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	7.1	6.7	2.6	12.9	7.6	3.7	12.7	0.8	5.6	9.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.1	37.3	37.7	31.4	55.5	34.5	70.2	45.9	25.1	80.2	37.8	24.5
LnGrp LOS	D	D	D	C	E	C	E	D	C	F	D	C
Approach Vol, veh/h		766			1238			1010			1089	
Approach Delay, s/veh		42.2			47.9			47.7			41.1	
Approach LOS		D			D			D			D	

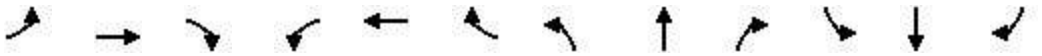
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	48.0	18.0	39.9	16.9	45.2	13.6	44.3
Change Period (Y+Rc), s	5.2	9.2	5.6	9.5	5.2	9.2	5.6	9.5
Max Green Setting (Gmax), s	12.8	33.8	12.4	31.5	12.8	33.8	12.4	31.5
Max Q Clear Time (g_c+I1), s	9.1	23.8	12.8	28.7	11.8	29.3	8.0	18.6
Green Ext Time (p_c), s	0.1	4.2	0.0	1.7	0.0	2.4	0.1	2.7

Intersection Summary	
HCM 7th Control Delay, s/veh	45.0
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	919	47	50	796	110	78	477	29	0	0	0
Future Volume (vph)	97	919	47	50	796	110	78	477	29	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.2		5.4	5.2			5.6				
Lane Util. Factor	1.00	0.95		1.00	0.95			0.91				
Frpb, ped/bikes	1.00	0.99		1.00	0.98			1.00				
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00				
Frt	1.00	0.99		1.00	0.98			0.99				
Flt Protected	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (prot)	1711	3311		1711	3254			4801				
Flt Permitted	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (perm)	1711	3311		1711	3254			4801				
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	100	947	48	52	821	113	80	492	30	0	0	0
RTOR Reduction (vph)	0	2	0	0	8	0	0	5	0	0	0	0
Lane Group Flow (vph)	100	993	0	52	926	0	0	597	0	0	0	0
Confl. Peds. (#/hr)			87			84	8		12	12		8
Confl. Bikes (#/hr)			1			2						
Bus Blockages (#/hr)	0	6	0	0	6	0	0	5	0	0	0	0
Turn Type	Prot	NA		Prot	NA		Perm	NA				
Protected Phases	5	2		1	6			4				
Permitted Phases							4					
Actuated Green, G (s)	11.6	72.0		8.6	69.4			23.2				
Effective Green, g (s)	11.6	72.0		8.6	69.4			23.2				
Actuated g/C Ratio	0.10	0.60		0.07	0.58			0.19				
Clearance Time (s)	5.0	5.2		5.4	5.2			5.6				
Vehicle Extension (s)	2.0	5.0		2.0	5.0			3.0				
Lane Grp Cap (vph)	165	1986		122	1881			928				
v/s Ratio Prot	c0.06	c0.30		0.03	0.28							
v/s Ratio Perm								0.12				
v/c Ratio	0.61	0.50		0.43	0.49			0.64				
Uniform Delay, d1	52.0	13.7		53.3	14.9			44.6				
Progression Factor	1.00	1.00		1.00	1.00			1.00				
Incremental Delay, d2	4.3	0.9		0.9	0.9			1.5				
Delay (s)	56.3	14.6		54.2	15.8			46.1				
Level of Service	E	B		D	B			D				
Approach Delay (s/veh)		18.4			17.9			46.1			0.0	
Approach LOS		B			B			D			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.2
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



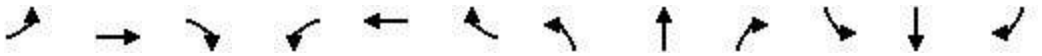
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	537	815	0	0	0	0	0	659	25	0	0	0
Future Volume (veh/h)	537	815	0	0	0	0	0	659	25	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1856	1856	0				0	1856	1856			
Adj Flow Rate, veh/h	479	995	0				0	701	13			
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94			
Percent Heavy Veh, %	3	3	0				0	3	3			
Cap, veh/h	624	1310	0				0	2721	815			
Arrive On Green	0.35	0.35	0.00				0.00	0.54	0.54			
Sat Flow, veh/h	1767	3711	0				0	5233	1517			
Grp Volume(v), veh/h	479	995	0				0	701	13			
Grp Sat Flow(s),veh/h/ln	1767	1856	0				0	1689	1517			
Q Serve(g_s), s	21.7	21.3	0.0				0.0	6.7	0.4			
Cycle Q Clear(g_c), s	21.7	21.3	0.0				0.0	6.7	0.4			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	624	1310	0				0	2721	815			
V/C Ratio(X)	0.77	0.76	0.00				0.00	0.26	0.02			
Avail Cap(c_a), veh/h	785	1649	0				0	2721	815			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.72	0.72			
Uniform Delay (d), s/veh	25.8	25.7	0.0				0.0	11.2	9.7			
Incr Delay (d2), s/veh	3.6	1.6	0.0				0.0	0.2	0.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.4	9.3	0.0				0.0	2.4	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.4	27.4	0.0				0.0	11.4	9.8			
LnGrp LOS	C	C						B	A			
Approach Vol, veh/h		1474						714				
Approach Delay, s/veh		28.0						11.3				
Approach LOS		C						B				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		36.8		53.2								
Change Period (Y+Rc), s		5.0		4.9								
Max Green Setting (Gmax), s		40.0		40.1								
Max Q Clear Time (g_c+I1), s		23.7		8.7								
Green Ext Time (p_c), s		8.1		5.5								

Intersection Summary	
HCM 7th Control Delay, s/veh	22.6
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	819	117	239	957	0	0	0	0
Future Volume (veh/h)	0	0	0	0	819	117	239	957	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1856	1856	1856	1856	0			
Adj Flow Rate, veh/h				0	844	108	246	987	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	3	3	3	3	0			
Cap, veh/h				0	1256	161	419	1682	0			
Arrive On Green				0.00	0.40	0.40	0.13	0.13	0.00			
Sat Flow, veh/h				0	3223	401	1033	4315	0			
Grp Volume(v), veh/h				0	475	477	429	804	0			
Grp Sat Flow(s),veh/h/ln				0	1763	1768	1804	1689	0			
Q Serve(g_s), s				0.0	19.9	19.9	20.1	20.1	0.0			
Cycle Q Clear(g_c), s				0.0	19.9	19.9	20.1	20.1	0.0			
Prop In Lane				0.00		0.23	0.57		0.00			
Lane Grp Cap(c), veh/h				0	707	709	732	1370	0			
V/C Ratio(X)				0.00	0.67	0.67	0.59	0.59	0.00			
Avail Cap(c_a), veh/h				0	707	709	732	1370	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.90	0.90	0.00			
Uniform Delay (d), s/veh				0.0	22.1	22.1	31.9	31.9	0.0			
Incr Delay (d2), s/veh				0.0	5.0	5.0	3.1	1.7	0.0			
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	8.8	8.9	10.3	9.3	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	27.1	27.1	35.0	33.6	0.0			
LnGrp LOS					C	C	C	C				
Approach Vol, veh/h					952			1233				
Approach Delay, s/veh					27.1			34.1				
Approach LOS					C			C				

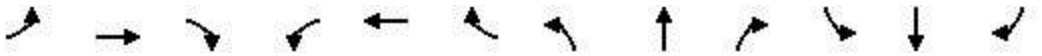
Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	45.0	45.0
Change Period (Y+Rc), s	8.5	8.9
Max Green Setting (Gmax), s	36.5	36.1
Max Q Clear Time (g_c+I1), s	22.1	21.9
Green Ext Time (p_c), s	7.2	5.4

Intersection Summary	
HCM 7th Control Delay, s/veh	31.0
HCM 7th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	37	0	1161	1	0	0	0
Future Volume (vph)	0	0	0	0	0	37	0	1161	1	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.1	4.1		5.0				
Lane Util. Factor					0.95	0.95		0.91				
Frpb, ped/bikes					1.00	1.00		1.00				
Flpb, ped/bikes					1.00	1.00		1.00				
Frt					0.85	0.85		1.00				
Flt Protected					1.00	1.00		1.00				
Satd. Flow (prot)					1468	1468		4964				
Flt Permitted					1.00	1.00		1.00				
Satd. Flow (perm)					1468	1468		4964				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	39	0	1222	1	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	20	19	0	1223	0	0	0	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type					NA	Prot		NA				
Protected Phases		4			3	3		2				
Permitted Phases	4											
Actuated Green, G (s)					2.9	2.9		38.9				
Effective Green, g (s)					2.9	2.9		38.9				
Actuated g/C Ratio					0.06	0.06		0.76				
Clearance Time (s)					4.1	4.1		5.0				
Vehicle Extension (s)					3.0	3.0		5.0				
Lane Grp Cap (vph)					83	83		3793				
v/s Ratio Prot					c0.01	0.01		c0.25				
v/s Ratio Perm												
v/c Ratio					0.24	0.23		0.32				
Uniform Delay, d1					22.9	22.9		1.9				
Progression Factor					1.00	1.00		1.00				
Incremental Delay, d2					1.5	1.4		0.2				
Delay (s)					24.5	24.3		2.1				
Level of Service					C	C		A				
Approach Delay (s/veh)		0.0			24.4			2.1			0.0	
Approach LOS		A			C			A			A	

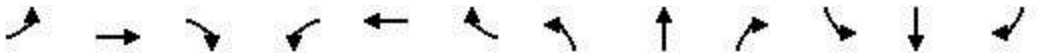
Intersection Summary			
HCM 2000 Control Delay (s/veh)	2.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	50.9	Sum of lost time (s)	13.3
Intersection Capacity Utilization	36.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	193	503	51	14	159	0	0	602	139
Future Volume (vph)	0	0	0	193	503	51	14	159	0	0	602	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0		4.6	4.6			4.6	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.97	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3337		1709	3421			3148	
Flt Permitted					0.99		0.26	1.00			1.00	
Satd. Flow (perm)					3337		475	3421			3148	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	205	535	54	15	169	0	0	640	148
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	22	0
Lane Group Flow (vph)	0	0	0	0	788	0	15	169	0	0	766	0
Confl. Peds. (#/hr)	2		2	2		2	3		4	4		3
Confl. Bikes (#/hr)									2			2
Parking (#/hr)											0	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					40.0		40.4	40.4			40.4	
Effective Green, g (s)					40.0		40.4	40.4			40.4	
Actuated g/C Ratio					0.44		0.45	0.45			0.45	
Clearance Time (s)					5.0		4.6	4.6			4.6	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					1483		213	1535			1413	
v/s Ratio Prot								0.05			c0.24	
v/s Ratio Perm					0.24		0.03					
v/c Ratio					0.53		0.07	0.11			0.54	
Uniform Delay, d1					18.2		14.1	14.4			18.1	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					1.4		0.6	0.1			1.5	
Delay (s)					19.5		14.8	14.5			19.6	
Level of Service					B		B	B			B	
Approach Delay (s/veh)		0.0			19.5			14.5			19.6	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	55	1090	0	0	0	0	0	690	601
Future Volume (veh/h)	0	0	0	55	1090	0	0	0	0	0	690	601
Initial Q (Qb), veh				0	0	0				0	0	0
Lane Width Adj.				1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				57	1124	0				0	711	531
Peak Hour Factor				0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				78	1539	0				0	2145	633
Arrive On Green				0.15	0.15	0.00				0.00	0.42	0.42
Sat Flow, veh/h				176	3556	0				0	5274	1507
Grp Volume(v), veh/h				604	577	0				0	711	531
Grp Sat Flow(s),veh/h/ln				1862	1777	0				0	1702	1507
Q Serve(g_s), s				27.9	27.9	0.0				0.0	8.4	28.4
Cycle Q Clear(g_c), s				27.9	27.9	0.0				0.0	8.4	28.4
Prop In Lane				0.09		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				827	790	0				0	2145	633
V/C Ratio(X)				0.73	0.73	0.00				0.00	0.33	0.84
Avail Cap(c_a), veh/h				827	790	0				0	2145	633
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.62	0.62	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				33.2	33.2	0.0				0.0	17.6	23.4
Incr Delay (d2), s/veh				3.6	3.7	0.0				0.0	0.4	12.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				14.6	14.0	0.0				0.0	3.2	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				36.8	37.0	0.0				0.0	18.0	36.0
LnGrp LOS				D	D						B	D
Approach Vol, veh/h					1181						1242	
Approach Delay, s/veh					36.9						25.7	
Approach LOS					D						C	

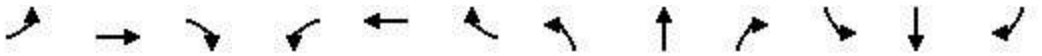
Timer - Assigned Phs	2		4
Phs Duration (G+Y+Rc), s	44.0		46.0
Change Period (Y+Rc), s	6.2		6.0
Max Green Setting (Gmax), s	37.8		40.0
Max Q Clear Time (g_c+I1), s	30.4		29.9
Green Ext Time (p_c), s	4.0		5.4

Intersection Summary		
HCM 7th Control Delay, s/veh	31.1	
HCM 7th LOS	C	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	175	160	0	502	285	0
Future Volume (veh/h)	175	160	0	502	285	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	0	1841	1841	0
Adj Flow Rate, veh/h	190	50	0	546	310	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	0	4	4	0
Cap, veh/h	975	447	0	1125	2137	0
Arrive On Green	0.29	0.29	0.00	0.61	0.61	0.00
Sat Flow, veh/h	3401	1560	0	1841	3681	0
Grp Volume(v), veh/h	190	50	0	546	310	0
Grp Sat Flow(s),veh/h/ln	1700	1560	0	1841	1749	0
Q Serve(g_s), s	3.8	2.1	0.0	14.8	3.4	0.0
Cycle Q Clear(g_c), s	3.8	2.1	0.0	14.8	3.4	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	975	447	0	1125	2137	0
V/C Ratio(X)	0.19	0.11	0.00	0.49	0.15	0.00
Avail Cap(c_a), veh/h	975	447	0	1125	2137	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.75	1.00	0.00
Uniform Delay (d), s/veh	24.3	23.7	0.0	9.7	7.5	0.0
Incr Delay (d2), s/veh	0.4	0.5	0.0	1.1	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.8	0.0	5.6	1.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	24.7	24.2	0.0	10.8	7.6	0.0
LnGrp LOS	C	C		B	A	
Approach Vol, veh/h	240			546	310	
Approach Delay, s/veh	24.6			10.8	7.6	
Approach LOS	C			B	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		60.0		30.0		60.0
Change Period (Y+Rc), s		5.0		4.2		5.0
Max Green Setting (Gmax), s		55.0		25.8		55.0
Max Q Clear Time (g_c+I1), s		5.4		5.8		16.8
Green Ext Time (p_c), s		2.3		0.7		4.1

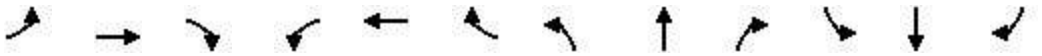
Intersection Summary		
HCM 7th Control Delay, s/veh	12.9	
HCM 7th LOS	B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	362	152	51	850	225	63	232	18	56	286	65
Future Volume (veh/h)	23	362	152	51	850	225	63	232	18	56	286	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.96	0.99		0.98	0.99		0.97
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	0.90
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	23	369	122	52	867	214	64	237	4	57	292	13
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	1443	467	122	1637	404	148	422	352	188	422	312
Arrive On Green	0.04	0.56	0.56	0.07	0.58	0.58	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	2574	832	1781	2799	691	1066	1870	1558	1128	1870	1384
Grp Volume(v), veh/h	23	252	239	52	550	531	64	237	4	57	292	13
Grp Sat Flow(s),veh/h/ln	1781	1777	1629	1781	1777	1713	1066	1870	1558	1128	1870	1384
Q Serve(g_s), s	1.5	8.7	9.1	3.4	22.3	22.4	7.0	13.5	0.2	5.7	17.2	0.9
Cycle Q Clear(g_c), s	1.5	8.7	9.1	3.4	22.3	22.4	24.2	13.5	0.2	19.1	17.2	0.9
Prop In Lane	1.00		0.51	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	996	913	122	1039	1002	148	422	352	188	422	312
V/C Ratio(X)	0.29	0.25	0.26	0.43	0.53	0.53	0.43	0.56	0.01	0.30	0.69	0.04
Avail Cap(c_a), veh/h	175	996	913	175	1039	1002	160	444	370	201	444	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	55.5	13.5	13.6	53.6	15.0	15.0	53.7	41.2	36.1	49.7	42.6	36.3
Incr Delay (d2), s/veh	0.7	0.6	0.7	0.9	1.9	2.0	2.0	1.5	0.0	0.9	4.3	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	0.7	3.6	3.4	1.5	9.1	8.8	2.0	6.4	0.1	1.6	8.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.2	14.1	14.3	54.5	16.9	17.0	55.7	42.6	36.1	50.6	46.9	36.4
LnGrp LOS	E	B	B	D	B	B	E	D	D	D	D	D
Approach Vol, veh/h		514			1133			305			362	
Approach Delay, s/veh		16.1			18.7			45.3			47.1	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.4	73.0		32.6	11.6	75.9		32.6				
Change Period (Y+Rc), s	6.2	5.7		5.5	6.2	5.7		5.5				
Max Green Setting (Gmax), s	11.8	62.3		28.5	11.8	62.3		28.5				
Max Q Clear Time (g_c+I1), s	5.4	11.1		26.2	3.5	24.4		21.1				
Green Ext Time (p_c), s	0.0	6.2		0.4	0.0	16.2		1.1				

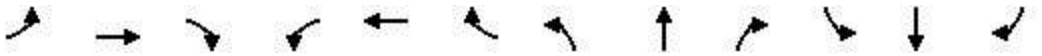
Intersection Summary	
HCM 7th Control Delay, s/veh	26.1
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	397	300	55	266	0	0	0	0	36	1370	77
Future Volume (vph)	0	397	300	55	266	0	0	0	0	36	1370	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.9			5.9					4.9	4.7	4.7
Lane Util. Factor		0.95			0.95					1.00	0.95	1.00
Frpb, ped/bikes		0.98			1.00					1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00					1.00	1.00	1.00
Frt		0.94			1.00					1.00	1.00	0.85
Flt Protected		1.00			0.99					0.95	1.00	1.00
Satd. Flow (prot)		3102			3355					1694	3388	1402
Flt Permitted		1.00			0.65					0.95	1.00	1.00
Satd. Flow (perm)		3102			2186					1694	3388	1402
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	414	312	57	277	0	0	0	0	38	1427	80
RTOR Reduction (vph)	0	25	0	0	0	0	0	0	0	0	0	16
Lane Group Flow (vph)	0	702	0	0	334	0	0	0	0	38	1427	64
Confl. Peds. (#/hr)	27		22	22		27	10		13			10
Confl. Bikes (#/hr)			3			3						3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	10
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		4			8					5	2	
Permitted Phases				8								2
Actuated Green, G (s)		40.1			40.1					12.7	69.3	69.3
Effective Green, g (s)		40.1			40.1					12.7	69.3	69.3
Actuated g/C Ratio		0.33			0.33					0.11	0.58	0.58
Clearance Time (s)		5.9			5.9					4.9	4.7	4.7
Vehicle Extension (s)		5.8			5.8					2.0	4.9	4.9
Lane Grp Cap (vph)		1036			730					179	1956	809
v/s Ratio Prot		c0.23								0.02	c0.42	
v/s Ratio Perm					0.15							0.05
v/c Ratio		0.68			0.46					0.21	0.73	0.08
Uniform Delay, d1		34.4			31.4					49.1	18.5	11.2
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		3.6			2.1					0.2	2.4	0.2
Delay (s)		38.0			33.5					49.3	20.9	11.4
Level of Service		D			C					D	C	B
Approach Delay (s/veh)		38.0			33.5			0.0			21.1	
Approach LOS		D			C			A			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		

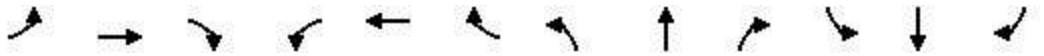
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	135	130	18	79	17	75	444	43	53	510	66
Future Volume (veh/h)	32	135	130	18	79	17	75	444	43	53	510	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	0.87		0.80	0.88		0.80	0.99		0.88	0.99		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.96	1.00	1.00	0.94
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	34	142	25	19	83	10	79	467	32	56	537	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	318	393	268	76	260	28	512	1235	887	568	1235	863
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	1112	1841	1256	139	1220	133	807	1841	1322	873	1841	1286
Grp Volume(v), veh/h	34	142	25	112	0	0	79	467	32	56	537	51
Grp Sat Flow(s),veh/h/ln	1112	1841	1256	1491	0	0	807	1841	1322	873	1841	1286
Q Serve(g_s), s	0.0	5.9	1.4	0.0	0.0	0.0	4.5	10.1	0.7	2.7	12.2	1.2
Cycle Q Clear(g_c), s	2.2	5.9	1.4	5.4	0.0	0.0	16.7	10.1	0.7	12.8	12.2	1.2
Prop In Lane	1.00		1.00	0.17		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	318	393	268	365	0	0	512	1235	887	568	1235	863
V/C Ratio(X)	0.11	0.36	0.09	0.31	0.00	0.00	0.15	0.38	0.04	0.10	0.43	0.06
Avail Cap(c_a), veh/h	409	544	371	482	0	0	512	1235	887	568	1235	863
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)	0.49	0.49	0.49	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	30.2	28.4	30.0	0.0	0.0	10.8	6.5	5.0	9.3	6.9	5.1
Incr Delay (d2), s/veh	0.1	0.3	0.1	0.5	0.0	0.0	0.6	0.9	0.1	0.3	1.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.6	0.4	2.1	0.0	0.0	0.8	3.5	0.2	0.5	4.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.8	30.4	28.5	30.4	0.0	0.0	11.4	7.4	5.1	9.7	8.0	5.2
LnGrp LOS	C	C	C	C			B	A	A	A	A	A
Approach Vol, veh/h		201			112			578			644	
Approach Delay, s/veh		29.9			30.4			7.8			7.9	
Approach LOS		C			C			A			A	

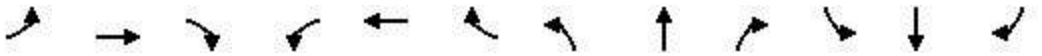
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.4		24.6		65.4		24.6				
Change Period (Y+Rc), s		5.0		5.4		5.0		5.4				
Max Green Setting (Gmax), s		53.0		26.6		53.0		26.6				
Max Q Clear Time (g_c+I1), s		14.8		7.4		18.7		7.9				
Green Ext Time (p_c), s		6.9		0.6		8.2		0.9				

Intersection Summary	
HCM 7th Control Delay, s/veh	12.4
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	236	48	26	186	0	0	0	0	66	1088	53
Future Volume (vph)	0	236	48	26	186	0	0	0	0	66	1088	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Lane Util. Factor		1.00		1.00	1.00					1.00	0.95	1.00
Frpb, ped/bikes		0.98		1.00	1.00					1.00	1.00	0.80
Flpb, ped/bikes		1.00		0.94	1.00					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		1530		1585	1769					1694	3388	1167
Flt Permitted		1.00		0.25	1.00					0.95	1.00	1.00
Satd. Flow (perm)		1530		425	1769					1694	3388	1167
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	246	50	27	194	0	0	0	0	69	1133	55
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	0	0	0	14
Lane Group Flow (vph)	0	290	0	27	194	0	0	0	0	69	1133	41
Confl. Peds. (#/hr)	41		90	90		41	50		101			50
Confl. Bikes (#/hr)			2			7			5			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	2	0	0	0	0	0	0	8
Parking (#/hr)		0	0									
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		8			4					5	2	
Permitted Phases				4								2
Actuated Green, G (s)		24.2		24.2	24.2					20.0	85.9	85.9
Effective Green, g (s)		24.2		24.2	24.2					20.0	85.9	85.9
Actuated g/C Ratio		0.20		0.20	0.20					0.17	0.72	0.72
Clearance Time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		308		85	356					282	2425	835
v/s Ratio Prot		c0.19			0.11					0.04	c0.33	
v/s Ratio Perm				0.06								0.04
v/c Ratio		0.94		0.32	0.54					0.24	0.47	0.05
Uniform Delay, d1		47.2		40.9	43.0					43.4	7.3	5.0
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		35.7		2.2	1.7					0.5	0.6	0.1
Delay (s)		82.9		43.0	44.7					43.9	7.9	5.1
Level of Service		F		D	D					D	A	A
Approach Delay (s/veh)		82.9			44.5			0.0			9.8	
Approach LOS		F			D			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	524	145	144	689	216	140	809	64	126	748	106
Future Volume (veh/h)	147	524	145	144	689	216	140	809	64	126	748	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.84	1.00		0.84	1.00		0.89	1.00		0.89
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.96	1.00	1.00	0.96
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	152	540	127	148	710	223	144	834	66	130	771	109
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	228	634	148	232	826	435	170	1235	594	156	1207	583
Arrive On Green	0.08	0.24	0.24	0.08	0.23	0.23	0.10	0.35	0.35	0.09	0.34	0.34
Sat Flow, veh/h	1767	2687	626	1767	3526	1282	1767	3526	1352	1767	3526	1345
Grp Volume(v), veh/h	152	353	314	148	710	223	144	834	66	130	771	109
Grp Sat Flow(s),veh/h/ln	1767	1763	1550	1767	1763	1282	1767	1763	1352	1767	1763	1345
Q Serve(g_s), s	7.7	22.9	23.3	7.5	23.2	17.1	9.6	24.2	3.5	8.7	22.1	6.1
Cycle Q Clear(g_c), s	7.7	22.9	23.3	7.5	23.2	17.1	9.6	24.2	3.5	8.7	22.1	6.1
Prop In Lane	1.00		0.40	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	416	366	232	826	435	170	1235	594	156	1207	583
V/C Ratio(X)	0.67	0.85	0.86	0.64	0.86	0.51	0.85	0.68	0.11	0.83	0.64	0.19
Avail Cap(c_a), veh/h	267	463	407	274	925	471	188	1235	594	188	1207	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	43.8	43.9	33.6	44.1	33.3	53.3	33.2	20.5	53.8	33.2	21.7
Incr Delay (d2), s/veh	4.9	12.7	15.5	3.7	7.6	0.9	26.4	3.0	0.4	22.6	2.6	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	11.3	10.4	3.4	10.8	5.4	5.5	10.8	1.2	4.8	9.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.6	56.5	59.5	37.3	51.6	34.3	79.8	36.2	20.9	76.4	35.8	22.4
LnGrp LOS	D	E	E	D	D	C	E	D	C	E	D	C
Approach Vol, veh/h		819			1081			1044			1010	
Approach Delay, s/veh		54.3			46.1			41.2			39.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	50.3	15.4	37.6	15.8	51.2	15.2	37.8
Change Period (Y+Rc), s	5.2	9.2	5.6	9.5	5.2	9.2	5.6	9.5
Max Green Setting (Gmax), s	12.8	33.8	12.4	31.5	12.8	33.8	12.4	31.5
Max Q Clear Time (g_c+I1), s	11.6	24.1	9.7	25.2	10.7	26.2	9.5	25.3
Green Ext Time (p_c), s	0.0	4.0	0.1	2.9	0.1	3.5	0.1	2.1

Intersection Summary	
HCM 7th Control Delay, s/veh	44.8
HCM 7th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	102	715	77	906	707
v/c Ratio	0.69	0.40	0.54	0.50	0.73
Control Delay (s/veh)	76.3	14.8	66.2	17.0	48.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	76.3	14.8	66.2	17.0	48.3
Queue Length 50th (ft)	80	166	60	229	189
Queue Length 95th (ft)	#152	222	113	298	234
Internal Link Dist (ft)		1082		561	832
Turn Bay Length (ft)	100		100		
Base Capacity (vph)	166	1784	160	1801	1100
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	0.40	0.48	0.50	0.64

Intersection Summary

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

Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	538	1122	713	20
v/c Ratio	0.70	0.77	0.35	0.03
Control Delay (s/veh)	20.5	22.6	19.1	6.4
Queue Delay	0.1	0.0	0.3	0.0
Total Delay (s/veh)	20.6	22.6	19.4	6.4
Queue Length 50th (ft)	205	258	107	0
Queue Length 95th (ft)	339	343	140	13
Internal Link Dist (ft)		163	521	
Turn Bay Length (ft)				70
Base Capacity (vph)	809	1538	2016	585
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	12	3	692	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.68	0.73	0.54	0.03

Intersection Summary

Lane Group	WBT	NBT
Lane Group Flow (vph)	746	1520
v/c Ratio	0.58	0.76
Control Delay (s/veh)	22.9	25.9
Queue Delay	0.0	1.0
Total Delay (s/veh)	22.9	26.9
Queue Length 50th (ft)	171	307
Queue Length 95th (ft)	231	363
Internal Link Dist (ft)	211	210
Turn Bay Length (ft)		
Base Capacity (vph)	1295	1998
Starvation Cap Reductn	0	228
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.58	0.86

Intersection Summary

Lane Group	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	3	9	8	1260
v/c Ratio	0.01	0.04	0.04	0.28
Control Delay (s/veh)	21.0	21.3	21.3	2.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.0	21.3	21.3	2.7
Queue Length 50th (ft)	1	2	2	0
Queue Length 95th (ft)	7	14	13	124
Internal Link Dist (ft)	447	350		508
Turn Bay Length (ft)				
Base Capacity (vph)	800	761	705	4447
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	0.00	0.01	0.01	0.28

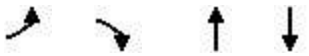
Intersection Summary

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	812	24	269	294
v/c Ratio	0.36	0.12	0.35	0.40
Control Delay (s/veh)	7.0	29.5	30.8	28.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.0	29.5	30.8	28.0
Queue Length 50th (ft)	93	11	69	67
Queue Length 95th (ft)	124	33	106	106
Internal Link Dist (ft)	1325		197	220
Turn Bay Length (ft)		25		
Base Capacity (vph)	2227	208	767	729
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	0.36	0.12	0.35	0.40

Intersection Summary

Lane Group	WBT	SBT	SBR
Lane Group Flow (vph)	701	228	304
v/c Ratio	0.47	0.11	0.46
Control Delay (s/veh)	8.8	16.1	11.4
Queue Delay	0.3	0.0	0.0
Total Delay (s/veh)	9.1	16.1	11.4
Queue Length 50th (ft)	67	29	56
Queue Length 95th (ft)	87	45	130
Internal Link Dist (ft)	218	282	
Turn Bay Length (ft)			
Base Capacity (vph)	1491	2005	656
Starvation Cap Reductn	269	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.57	0.11	0.46

Intersection Summary



Lane Group	EBL	EBR	NBT	SBT
Lane Group Flow (vph)	458	228	555	104
v/c Ratio	0.50	0.39	0.52	0.05
Control Delay (s/veh)	28.9	5.7	12.1	7.1
Queue Delay	0.0	0.0	0.6	0.0
Total Delay (s/veh)	28.9	5.7	12.7	7.1
Queue Length 50th (ft)	115	0	170	12
Queue Length 95th (ft)	163	54	257	22
Internal Link Dist (ft)	624		489	355
Turn Bay Length (ft)	350			
Base Capacity (vph)	924	588	1068	2030
Starvation Cap Reductn	0	0	204	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.50	0.39	0.64	0.05

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	25	431	51	1113	58	334	38	60	223	17
v/c Ratio	0.18	0.23	0.35	0.57	0.35	0.87	0.10	0.73	0.58	0.05
Control Delay (s/veh)	54.5	13.4	58.9	16.1	45.5	68.3	0.5	89.1	48.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	54.5	13.4	58.9	16.1	45.5	68.3	0.5	89.1	48.2	0.3
Queue Length 50th (ft)	19	88	39	295	39	253	0	44	157	0
Queue Length 95th (ft)	49	125	81	373	82	#398	2	#120	242	0
Internal Link Dist (ft)		658		137		375			489	
Turn Bay Length (ft)	90		95		60		50	40		60
Base Capacity (vph)	165	1885	165	1939	179	419	405	90	419	371
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.23	0.31	0.57	0.32	0.80	0.09	0.67	0.53	0.05

Intersection Summary

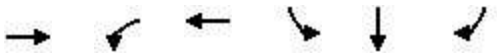
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	650	322	25	553	75
v/c Ratio	0.55	0.41	0.12	0.29	0.09
Control Delay (s/veh)	22.0	32.9	44.0	13.3	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.0	32.9	44.0	13.3	2.8
Queue Length 50th (ft)	140	104	17	111	0
Queue Length 95th (ft)	202	149	44	146	21
Internal Link Dist (ft)	369	339		1163	
Turn Bay Length (ft)			100		100
Base Capacity (vph)	1174	776	295	1937	845
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.41	0.08	0.29	0.09

Intersection Summary

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	51	136	95	180	121	504	112	94	354	64
v/c Ratio	0.33	0.40	0.43	0.71	0.26	0.42	0.24	0.22	0.29	0.13
Control Delay (s/veh)	35.4	34.2	12.8	45.4	8.1	8.1	5.6	7.8	6.9	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.4	34.2	12.8	45.4	8.1	8.1	5.6	7.8	6.9	2.3
Queue Length 50th (ft)	25	67	0	85	27	130	15	20	81	0
Queue Length 95th (ft)	55	112	37	146	54	184	37	43	120	13
Internal Link Dist (ft)		763		472		644			524	
Turn Bay Length (ft)	105		55		95		95	100		95
Base Capacity (vph)	193	419	252	311	461	1210	476	423	1210	482
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.32	0.38	0.58	0.26	0.42	0.24	0.22	0.29	0.13

Intersection Summary



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	275	23	235	14	270	32
v/c Ratio	0.92	0.25	0.69	0.07	0.11	0.04
Control Delay (s/veh)	80.4	47.9	56.1	42.0	5.4	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.4	47.9	56.1	42.0	5.4	1.8
Queue Length 50th (ft)	213	16	177	11	32	0
Queue Length 95th (ft)	#378	44	271	29	46	9
Internal Link Dist (ft)	273		763		551	
Turn Bay Length (ft)		25		110		100
Base Capacity (vph)	312	96	353	342	2368	896
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	0.88	0.24	0.67	0.04	0.11	0.04

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	219	572	121	809	308	106	864	40	146	747	196
v/c Ratio	0.89	0.64	0.37	0.93	0.57	0.66	0.88	0.07	0.83	0.74	0.35
Control Delay (s/veh)	61.5	39.8	23.9	60.6	29.5	71.7	52.7	19.1	88.8	43.8	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.5	39.8	23.9	60.6	29.5	71.7	52.7	19.1	88.8	43.8	22.4
Queue Length 50th (ft)	109	197	56	327	167	81	348	18	115	287	94
Queue Length 95th (ft)	#263	266	97	#446	251	144	#467	39	#231	364	151
Internal Link Dist (ft)		2238		333			805			998	
Turn Bay Length (ft)	195		115			100		100	195		195
Base Capacity (vph)	247	899	351	889	542	180	979	563	180	1008	558
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.64	0.34	0.91	0.57	0.59	0.88	0.07	0.81	0.74	0.35

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	100	995	52	934	602
v/c Ratio	0.67	0.49	0.36	0.49	0.64
Control Delay (s/veh)	73.9	15.8	58.3	16.0	47.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	73.9	15.8	58.3	16.0	47.0
Queue Length 50th (ft)	77	253	39	228	153
Queue Length 95th (ft)	137	317	81	290	195
Internal Link Dist (ft)		1082		561	832
Turn Bay Length (ft)	100		100		
Base Capacity (vph)	171	2017	165	1917	1140
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.49	0.32	0.49	0.53

Intersection Summary

Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	468	970	701	27
v/c Ratio	0.66	0.76	0.30	0.04
Control Delay (s/veh)	19.4	26.0	15.4	5.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.4	26.0	15.4	5.7
Queue Length 50th (ft)	158	237	93	0
Queue Length 95th (ft)	274	315	122	15
Internal Link Dist (ft)		163	521	
Turn Bay Length (ft)				70
Base Capacity (vph)	757	1376	2319	709
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	25	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.62	0.70	0.31	0.04

Intersection Summary

Lane Group	WBT	NBT
Lane Group Flow (vph)	965	1233
v/c Ratio	0.72	0.62
Control Delay (s/veh)	26.0	16.1
Queue Delay	0.1	0.5
Total Delay (s/veh)	26.0	16.7
Queue Length 50th (ft)	238	134
Queue Length 95th (ft)	314	165
Internal Link Dist (ft)	211	210
Turn Bay Length (ft)		
Base Capacity (vph)	1336	1994
Starvation Cap Reductn	0	340
Spillback Cap Reductn	14	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.73	0.75

Intersection Summary

Lane Group	WBT	WBR	NBT
Lane Group Flow (vph)	20	19	1223
v/c Ratio	0.09	0.09	0.29
Control Delay (s/veh)	18.5	18.4	2.1
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	18.5	18.4	2.1
Queue Length 50th (ft)	5	5	0
Queue Length 95th (ft)	20	18	59
Internal Link Dist (ft)	350		508
Turn Bay Length (ft)			
Base Capacity (vph)	753	753	4274
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.03	0.03	0.29

Intersection Summary

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	794	15	169	788
v/c Ratio	0.53	0.07	0.11	0.55
Control Delay (s/veh)	19.6	15.4	14.6	18.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.6	15.4	14.6	18.9
Queue Length 50th (ft)	167	5	28	160
Queue Length 95th (ft)	223	17	48	216
Internal Link Dist (ft)	1325		197	220
Turn Bay Length (ft)		25		
Base Capacity (vph)	1489	213	1535	1435
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	0.53	0.07	0.11	0.55

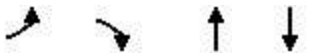
Intersection Summary

Lane Group	WBT	SBT	SBR
Lane Group Flow (vph)	1181	711	620
v/c Ratio	0.77	0.34	1.04
Control Delay (s/veh)	11.7	18.3	73.7
Queue Delay	0.6	0.0	0.0
Total Delay (s/veh)	12.3	18.3	73.7
Queue Length 50th (ft)	109	99	~377
Queue Length 95th (ft)	130	129	#590
Internal Link Dist (ft)	218	282	
Turn Bay Length (ft)			
Base Capacity (vph)	1539	2064	597
Starvation Cap Reductn	106	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.82	0.34	1.04

Intersection Summary

~ 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.



Lane Group	EBL	EBR	NBT	SBT
Lane Group Flow (vph)	190	174	546	310
v/c Ratio	0.20	0.32	0.51	0.15
Control Delay (s/veh)	25.1	5.8	11.9	7.7
Queue Delay	0.0	0.0	0.5	0.0
Total Delay (s/veh)	25.1	5.8	12.4	7.7
Queue Length 50th (ft)	43	0	164	37
Queue Length 95th (ft)	71	48	247	55
Internal Link Dist (ft)	624		489	355
Turn Bay Length (ft)	350			
Base Capacity (vph)	933	548	1079	2050
Starvation Cap Reductn	0	0	210	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.32	0.63	0.15

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	23	524	52	1097	64	237	18	57	292	66
v/c Ratio	0.16	0.28	0.35	0.53	0.69	0.66	0.05	0.43	0.81	0.20
Control Delay (s/veh)	54.1	11.6	58.7	15.3	79.1	52.9	0.3	50.8	63.4	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	54.1	11.6	58.7	15.3	79.1	52.9	0.3	50.8	63.4	6.8
Queue Length 50th (ft)	17	88	39	270	47	172	0	39	220	0
Queue Length 95th (ft)	45	137	81	364	#109	251	0	82	311	28
Internal Link Dist (ft)		658		137		375			489	
Turn Bay Length (ft)	90		95		60		50	40		
Base Capacity (vph)	168	1881	168	2062	111	427	414	160	427	380
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.28	0.31	0.53	0.58	0.56	0.04	0.36	0.68	0.17

Intersection Summary

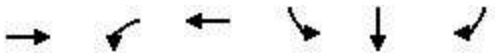
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	727	334	38	1427	80
v/c Ratio	0.69	0.46	0.18	0.73	0.10
Control Delay (s/veh)	36.6	33.9	45.4	21.3	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	36.6	33.9	45.4	21.3	6.8
Queue Length 50th (ft)	248	108	26	412	14
Queue Length 95th (ft)	320	156	59	501	37
Internal Link Dist (ft)	369	339		1163	
Turn Bay Length (ft)			100		100
Base Capacity (vph)	1060	730	297	1956	825
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.46	0.13	0.73	0.10

Intersection Summary

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	34	142	137	120	79	467	45	56	537	69
v/c Ratio	0.18	0.45	0.41	0.42	0.17	0.38	0.06	0.11	0.43	0.11
Control Delay (s/veh)	30.8	35.9	9.3	32.6	6.9	7.3	2.0	6.2	8.0	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.8	35.9	9.3	32.6	6.9	7.3	2.0	6.2	8.0	2.4
Queue Length 50th (ft)	16	70	0	53	16	116	0	11	141	2
Queue Length 95th (ft)	42	125	47	105	37	175	11	26	211	16
Internal Link Dist (ft)		763		472		644			524	
Turn Bay Length (ft)	105		55		95		95	100		95
Base Capacity (vph)	311	521	460	466	462	1242	796	526	1242	649
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.27	0.30	0.26	0.17	0.38	0.06	0.11	0.43	0.11

Intersection Summary



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	296	27	194	69	1133	55
v/c Ratio	0.94	0.32	0.54	0.23	0.47	0.06
Control Delay (s/veh)	84.2	52.0	49.3	42.0	8.1	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	84.2	52.0	49.3	42.0	8.1	1.9
Queue Length 50th (ft)	226	18	138	46	182	1
Queue Length 95th (ft)	#402	51	217	89	223	13
Internal Link Dist (ft)	273		763		551	
Turn Bay Length (ft)		25		110		100
Base Capacity (vph)	321	87	364	352	2426	849
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	0.92	0.31	0.53	0.20	0.47	0.06

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	152	689	148	710	223	144	834	66	130	771	109
v/c Ratio	0.60	0.85	0.57	0.85	0.47	0.83	0.79	0.12	0.76	0.73	0.20
Control Delay (s/veh)	32.3	52.2	30.5	53.9	27.6	87.4	44.8	19.0	80.1	42.7	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	32.3	52.2	30.5	53.9	27.6	87.4	44.8	19.0	80.1	42.7	20.0
Queue Length 50th (ft)	72	258	70	277	113	113	331	29	101	298	49
Queue Length 95th (ft)	119	335	116	353	176	#226	#441	57	#198	378	87
Internal Link Dist (ft)		2238		333			805			998	
Turn Bay Length (ft)	195		115			100		100	195		195
Base Capacity (vph)	268	859	279	889	488	180	1062	562	180	1054	554
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.80	0.53	0.80	0.46	0.80	0.79	0.12	0.72	0.73	0.20

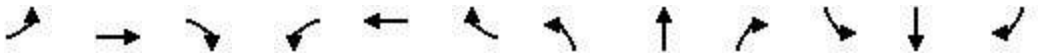
Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	610	110	80	790	120	140	530	50	0	0	0
Future Volume (vph)	110	610	110	80	790	120	140	530	50	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.2		5.4	5.2			5.6				
Lane Util. Factor	1.00	0.95		1.00	0.95			0.91				
Frpb, ped/bikes	1.00	0.93		1.00	0.98			1.00				
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00				
Frt	1.00	0.98		1.00	0.98			0.99				
Flt Protected	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (prot)	1662	2989		1662	3140			4618				
Flt Permitted	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (perm)	1662	2989		1662	3140			4618				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	115	635	115	83	823	125	146	552	52	0	0	0
RTOR Reduction (vph)	0	11	0	0	9	0	0	7	0	0	0	0
Lane Group Flow (vph)	115	739	0	83	939	0	0	743	0	0	0	0
Confl. Peds. (#/hr)			144			98	9		36	36		9
Confl. Bikes (#/hr)			3			1			3			
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	5	0	0	0	0
Turn Type	Prot	NA		Prot	NA		Perm	NA				
Protected Phases	5	2		1	6			4				
Permitted Phases							4					
Actuated Green, G (s)	12.1	69.0		9.1	66.4			25.7				
Effective Green, g (s)	12.1	69.0		9.1	66.4			25.7				
Actuated g/C Ratio	0.10	0.57		0.08	0.55			0.21				
Clearance Time (s)	5.0	5.2		5.4	5.2			5.6				
Vehicle Extension (s)	2.0	5.0		2.0	5.0			3.0				
Lane Grp Cap (vph)	167	1718		126	1737			989				
v/s Ratio Prot	c0.07	0.25		0.05	c0.30							
v/s Ratio Perm								0.16				
v/c Ratio	0.69	0.43		0.66	0.54			0.75				
Uniform Delay, d1	52.1	14.4		53.9	17.1			44.2				
Progression Factor	1.00	1.00		1.00	1.00			1.00				
Incremental Delay, d2	9.0	0.8		9.1	1.2			3.3				
Delay (s)	61.2	15.2		63.1	18.3			47.4				
Level of Service	E	B		E	B			D				
Approach Delay (s/veh)		21.3			21.9			47.4			0.0	
Approach LOS		C			C			D			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	28.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.2
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	810	890	0	0	0	0	0	730	20	0	0	0
Future Volume (veh/h)	810	890	0	0	0	0	0	730	20	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.93			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1841	1841	0				0	1841	1841			
Adj Flow Rate, veh/h	584	1269	0				0	753	9			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	4	4	0				0	4	4			
Cap, veh/h	761	1599	0				0	2290	661			
Arrive On Green	0.43	0.43	0.00				0.00	0.46	0.46			
Sat Flow, veh/h	1753	3681	0				0	5191	1451			
Grp Volume(v), veh/h	584	1269	0				0	753	9			
Grp Sat Flow(s),veh/h/ln	1753	1841	0				0	1675	1451			
Q Serve(g_s), s	25.4	26.8	0.0				0.0	8.6	0.3			
Cycle Q Clear(g_c), s	25.4	26.8	0.0				0.0	8.6	0.3			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	761	1599	0				0	2290	661			
V/C Ratio(X)	0.77	0.79	0.00				0.00	0.33	0.01			
Avail Cap(c_a), veh/h	877	1841	0				0	2290	661			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.57	0.57			
Uniform Delay (d), s/veh	21.6	22.0	0.0				0.0	15.7	13.4			
Incr Delay (d2), s/veh	3.6	2.2	0.0				0.0	0.2	0.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.6	11.4	0.0				0.0	3.2	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.2	24.2	0.0				0.0	15.9	13.4			
LnGrp LOS	C	C						B	B			
Approach Vol, veh/h		1853						762				
Approach Delay, s/veh		24.5						15.9				
Approach LOS		C						B				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		44.1		45.9								
Change Period (Y+Rc), s		5.0		4.9								
Max Green Setting (Gmax), s		45.0		35.1								
Max Q Clear Time (g_c+I1), s		28.8		10.6								
Green Ext Time (p_c), s		10.3		5.7								

Intersection Summary												
HCM 7th Control Delay, s/veh			22.0									
HCM 7th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	570	190	220	1310	0	0	0	0
Future Volume (veh/h)	0	0	0	0	570	190	220	1310	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1856	1856	1856	1856	0			
Adj Flow Rate, veh/h				0	594	193	229	1365	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	3	3	3	3	0			
Cap, veh/h				0	1040	337	303	1804	0			
Arrive On Green				0.00	0.40	0.40	0.13	0.13	0.00			
Sat Flow, veh/h				0	2685	840	746	4616	0			
Grp Volume(v), veh/h				0	403	384	558	1036	0			
Grp Sat Flow(s),veh/h/ln				0	1763	1670	1818	1689	0			
Q Serve(g_s), s				0.0	16.0	16.1	26.6	26.6	0.0			
Cycle Q Clear(g_c), s				0.0	16.0	16.1	26.6	26.6	0.0			
Prop In Lane				0.00		0.50	0.41		0.00			
Lane Grp Cap(c), veh/h				0	707	670	737	1370	0			
V/C Ratio(X)				0.00	0.57	0.57	0.76	0.76	0.00			
Avail Cap(c_a), veh/h				0	707	670	737	1370	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.83	0.83	0.00			
Uniform Delay (d), s/veh				0.0	20.9	21.0	34.7	34.7	0.0			
Incr Delay (d2), s/veh				0.0	3.3	3.5	6.0	3.3	0.0			
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	7.0	6.7	14.1	12.6	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	24.3	24.5	40.7	38.0	0.0			
LnGrp LOS					C	C	D	D				
Approach Vol, veh/h					787			1594				
Approach Delay, s/veh					24.4			38.9				
Approach LOS					C			D				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	45.0	45.0
Change Period (Y+Rc), s	8.5	8.9
Max Green Setting (Gmax), s	36.5	36.1
Max Q Clear Time (g_c+I1), s	28.6	18.1
Green Ext Time (p_c), s	5.7	4.9

Intersection Summary	
HCM 7th Control Delay, s/veh	34.1
HCM 7th LOS	C

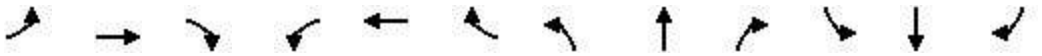
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	0	0	10	20	0	1200	10	0	0	0
Future Volume (vph)	10	10	0	0	10	20	0	1200	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2			4.1	4.1		5.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frpb, ped/bikes		1.00			1.00	1.00		1.00				
Flpb, ped/bikes		1.00			1.00	1.00		1.00				
Frt		1.00			0.95	0.85		1.00				
Flt Protected		0.98			1.00	1.00		1.00				
Satd. Flow (prot)		1757			1620	1454		4910				
Flt Permitted		1.00			1.00	1.00		1.00				
Satd. Flow (perm)		1801			1620	1454		4910				
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	11	11	0	0	11	22	0	1319	11	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	22	0	0	17	16	0	1330	0	0	0	0
Confl. Peds. (#/hr)			1	1								
Turn Type	Perm	NA			NA	Prot		NA				
Protected Phases		4			3	3		2				
Permitted Phases	4											
Actuated Green, G (s)		1.6			2.8	2.8		39.1				
Effective Green, g (s)		1.6			2.8	2.8		39.1				
Actuated g/C Ratio		0.03			0.05	0.05		0.69				
Clearance Time (s)		4.2			4.1	4.1		5.0				
Vehicle Extension (s)		3.0			3.0	3.0		5.0				
Lane Grp Cap (vph)		50			79	71		3379				
v/s Ratio Prot					0.01	c0.01		c0.27				
v/s Ratio Perm		c0.01										
v/c Ratio		0.44			0.22	0.23		0.39				
Uniform Delay, d1		27.2			25.9	26.0		3.8				
Progression Factor		1.00			1.00	1.00		1.00				
Incremental Delay, d2		6.1			1.4	1.6		0.3				
Delay (s)		33.2			27.3	27.6		4.1				
Level of Service		C			C	C		A				
Approach Delay (s/veh)		33.2			27.4			4.1			0.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	13.3
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	70	670	60	30	270	0	0	230	70
Future Volume (vph)	0	0	0	70	670	60	30	270	0	0	230	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0		4.6	4.6			4.6	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.97	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3329		1688	3388			3093	
Flt Permitted					1.00		0.48	1.00			1.00	
Satd. Flow (perm)					3329		861	3388			3093	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	75	720	65	32	290	0	0	247	75
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	32	0
Lane Group Flow (vph)	0	0	0	0	853	0	32	290	0	0	290	0
Confl. Peds. (#/hr)	1		6	6		1	4		6	6		4
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)											0	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					60.0		20.4	20.4			20.4	
Effective Green, g (s)					60.0		20.4	20.4			20.4	
Actuated g/C Ratio					0.67		0.23	0.23			0.23	
Clearance Time (s)					5.0		4.6	4.6			4.6	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					2219		195	767			701	
v/s Ratio Prot								0.09			c0.09	
v/s Ratio Perm					0.26		0.04					
v/c Ratio					0.38		0.16	0.38			0.41	
Uniform Delay, d1					6.7		28.0	29.4			29.7	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					0.5		1.8	1.4			1.8	
Delay (s)					7.2		29.8	30.9			31.5	
Level of Service					A		C	C			C	
Approach Delay (s/veh)		0.0			7.2			30.7			31.5	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	80	630	0	0	0	0	0	230	310
Future Volume (veh/h)	0	0	0	80	630	0	0	0	0	0	230	310
Initial Q (Qb), veh				0	0	0				0	0	0
Lane Width Adj.				1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1826	1826	0				0	1826	1826
Adj Flow Rate, veh/h				84	663	0				0	242	241
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				5	5	0				0	5	5
Cap, veh/h				177	1397	0				0	2094	619
Arrive On Green				0.15	0.15	0.00				0.00	0.42	0.42
Sat Flow, veh/h				398	3234	0				0	5149	1473
Grp Volume(v), veh/h				381	366	0				0	242	241
Grp Sat Flow(s),veh/h/ln				1806	1735	0				0	1662	1473
Q Serve(g_s), s				17.4	17.4	0.0				0.0	2.7	10.2
Cycle Q Clear(g_c), s				17.4	17.4	0.0				0.0	2.7	10.2
Prop In Lane				0.22		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				803	771	0				0	2094	619
V/C Ratio(X)				0.47	0.47	0.00				0.00	0.12	0.39
Avail Cap(c_a), veh/h				803	771	0				0	2094	619
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.75	0.75	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				28.8	28.8	0.0				0.0	15.9	18.1
Incr Delay (d2), s/veh				1.5	1.6	0.0				0.0	0.1	1.8
Initial Q Delay(d3), s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.7	8.3	0.0				0.0	1.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				30.3	30.3	0.0				0.0	16.0	19.9
LnGrp LOS				C	C						B	B
Approach Vol, veh/h					747						483	
Approach Delay, s/veh					30.3						18.0	
Approach LOS					C						B	

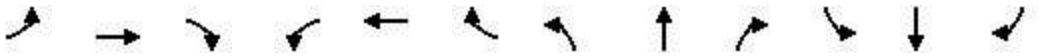
Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	44.0	46.0
Change Period (Y+Rc), s	6.2	6.0
Max Green Setting (Gmax), s	37.8	40.0
Max Q Clear Time (g_c+I1), s	12.2	19.4
Green Ext Time (p_c), s	2.5	4.7

Intersection Summary	
HCM 7th Control Delay, s/veh	25.5
HCM 7th LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	460	230	0	560	110	0
Future Volume (veh/h)	460	230	0	560	110	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	0	1826	1826	0
Adj Flow Rate, veh/h	484	69	0	589	116	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	0	5	5	0
Cap, veh/h	967	444	0	1116	2120	0
Arrive On Green	0.29	0.29	0.00	0.61	0.61	0.00
Sat Flow, veh/h	3374	1547	0	1826	3652	0
Grp Volume(v), veh/h	484	69	0	589	116	0
Grp Sat Flow(s),veh/h/ln	1687	1547	0	1826	1735	0
Q Serve(g_s), s	10.8	3.0	0.0	16.7	1.2	0.0
Cycle Q Clear(g_c), s	10.8	3.0	0.0	16.7	1.2	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	967	444	0	1116	2120	0
V/C Ratio(X)	0.50	0.16	0.00	0.53	0.05	0.00
Avail Cap(c_a), veh/h	967	444	0	1116	2120	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.41	1.00	0.00
Uniform Delay (d), s/veh	26.7	24.0	0.0	10.0	7.0	0.0
Incr Delay (d2), s/veh	1.8	0.7	0.0	0.7	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	1.2	0.0	6.2	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	28.6	24.7	0.0	10.8	7.1	0.0
LnGrp LOS	C	C		B	A	
Approach Vol, veh/h	553			589	116	
Approach Delay, s/veh	28.1			10.8	7.1	
Approach LOS	C			B	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		60.0		30.0		60.0
Change Period (Y+Rc), s		5.0		4.2		5.0
Max Green Setting (Gmax), s		55.0		25.8		55.0
Max Q Clear Time (g_c+I1), s		3.2		12.8		18.7
Green Ext Time (p_c), s		0.8		1.7		4.5

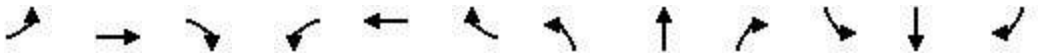
Intersection Summary		
HCM 7th Control Delay, s/veh	18.1	
HCM 7th LOS	B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	380	60	60	770	340	60	340	40	60	230	20
Future Volume (veh/h)	30	380	60	60	770	340	60	340	40	60	230	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.98	0.99		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	400	52	63	811	322	63	358	9	63	242	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	96	1680	216	128	1367	542	194	437	357	113	437	322
Arrive On Green	0.05	0.54	0.54	0.07	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1753	3086	397	1753	2428	962	1102	1841	1504	991	1841	1355
Grp Volume(v), veh/h	32	225	227	63	584	549	63	358	9	63	242	5
Grp Sat Flow(s),veh/h/ln	1753	1749	1735	1753	1749	1642	1102	1841	1504	991	1841	1355
Q Serve(g_s), s	2.1	8.1	8.2	4.1	26.3	26.4	6.4	22.1	0.6	6.4	13.9	0.3
Cycle Q Clear(g_c), s	2.1	8.1	8.2	4.1	26.3	26.4	20.2	22.1	0.6	28.5	13.9	0.3
Prop In Lane	1.00		0.23	1.00		0.59	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	952	944	128	984	924	194	437	357	113	437	322
V/C Ratio(X)	0.33	0.24	0.24	0.49	0.59	0.59	0.32	0.82	0.03	0.56	0.55	0.02
Avail Cap(c_a), veh/h	172	952	944	172	984	924	194	437	357	113	437	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	54.6	14.3	14.3	53.5	17.2	17.2	49.0	43.3	35.1	57.3	40.2	35.0
Incr Delay (d2), s/veh	0.8	0.6	0.6	1.1	2.6	2.8	1.0	11.7	0.0	5.8	1.5	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	0.9	3.3	3.3	1.9	10.8	10.2	1.8	11.4	0.2	2.1	6.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.4	14.9	14.9	54.6	19.8	20.0	50.0	55.0	35.1	63.1	41.6	35.0
LnGrp LOS	E	B	B	D	B	C	D	D	D	E	D	D
Approach Vol, veh/h		484			1196			430			310	
Approach Delay, s/veh		17.6			21.8			53.8			45.9	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	71.0		34.0	12.8	73.2		34.0				
Change Period (Y+Rc), s	6.2	5.7		5.5	6.2	5.7		5.5				
Max Green Setting (Gmax), s	11.8	62.3		28.5	11.8	62.3		28.5				
Max Q Clear Time (g_c+I1), s	6.1	10.2		24.1	4.1	28.4		30.5				
Green Ext Time (p_c), s	0.0	5.5		1.0	0.0	16.5		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	29.7	
HCM 7th LOS	C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	320	330	60	270	0	0	0	0	30	550	80
Future Volume (vph)	0	320	330	60	270	0	0	0	0	30	550	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.9			5.9					4.9	4.7	4.7
Lane Util. Factor		0.95			0.95					1.00	0.95	1.00
Frpb, ped/bikes		0.98			1.00					1.00	1.00	0.98
Flpb, ped/bikes		1.00			1.00					1.00	1.00	1.00
Frt		0.92			1.00					1.00	1.00	0.85
Flt Protected		1.00			0.99					0.95	1.00	1.00
Satd. Flow (prot)		3041			3321					1678	3355	1409
Flt Permitted		1.00			0.64					0.95	1.00	1.00
Satd. Flow (perm)		3041			2156					1678	3355	1409
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	337	347	63	284	0	0	0	0	32	579	84
RTOR Reduction (vph)	0	155	0	0	0	0	0	0	0	0	0	35
Lane Group Flow (vph)	0	529	0	0	347	0	0	0	0	32	579	49
Confl. Peds. (#/hr)	25		15	15		25	4		12			4
Confl. Bikes (#/hr)			2			1						3
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	10
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		4			8					5	2	
Permitted Phases				8								2
Actuated Green, G (s)		40.1			40.1					12.7	69.3	69.3
Effective Green, g (s)		40.1			40.1					12.7	69.3	69.3
Actuated g/C Ratio		0.33			0.33					0.11	0.58	0.58
Clearance Time (s)		5.9			5.9					4.9	4.7	4.7
Vehicle Extension (s)		5.8			5.8					2.0	4.9	4.9
Lane Grp Cap (vph)		1016			720					177	1937	813
v/s Ratio Prot		c0.17								0.02	c0.17	
v/s Ratio Perm					0.16							0.03
v/c Ratio		0.52			0.48					0.18	0.30	0.06
Uniform Delay, d1		32.2			31.7					48.9	12.9	11.1
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		1.9			2.3					0.2	0.4	0.1
Delay (s)		34.1			34.0					49.1	13.3	11.2
Level of Service		C			C					D	B	B
Approach Delay (s/veh)		34.1			34.0			0.0			14.7	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

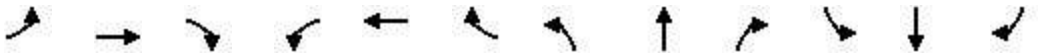
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	130	90	50	80	50	110	450	100	90	320	60
Future Volume (veh/h)	50	130	90	50	80	50	110	450	100	90	320	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.77		0.50	0.68		0.52	0.96		0.85	0.99		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.96	1.00	1.00	0.94
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	59	153	22	59	94	43	129	529	106	106	376	47
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	215	426	182	100	127	49	588	1189	819	471	1189	784
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.65	0.65	0.65	0.65	0.65	0.65
Sat Flow, veh/h	939	1826	781	207	546	212	906	1826	1257	769	1826	1204
Grp Volume(v), veh/h	59	153	22	196	0	0	129	529	106	106	376	47
Grp Sat Flow(s),veh/h/ln	939	1826	781	965	0	0	906	1826	1257	769	1826	1204
Q Serve(g_s), s	0.0	6.3	2.0	11.3	0.0	0.0	6.6	12.8	2.9	7.1	8.1	1.3
Cycle Q Clear(g_c), s	9.0	6.3	2.0	17.7	0.0	0.0	14.7	12.8	2.9	19.9	8.1	1.3
Prop In Lane	1.00		1.00	0.30		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	426	182	277	0	0	588	1189	819	471	1189	784
V/C Ratio(X)	0.27	0.36	0.12	0.71	0.00	0.00	0.22	0.44	0.13	0.22	0.32	0.06
Avail Cap(c_a), veh/h	221	438	187	284	0	0	588	1189	819	471	1189	784
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)	0.30	0.30	0.30	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	28.9	27.2	33.1	0.0	0.0	10.1	7.7	6.0	12.6	6.9	5.7
Incr Delay (d2), s/veh	0.2	0.2	0.1	7.6	0.0	0.0	0.9	1.2	0.3	1.1	0.7	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.8	0.4	4.7	0.0	0.0	1.3	4.6	0.7	1.3	2.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.1	29.0	27.3	40.7	0.0	0.0	11.0	8.9	6.3	13.7	7.6	5.8
LnGrp LOS	C	C	C	D			B	A	A	B	A	A
Approach Vol, veh/h		234			196			764			529	
Approach Delay, s/veh		29.1			40.7			8.9			8.7	
Approach LOS		C			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.6		26.4		63.6		26.4				
Change Period (Y+Rc), s		5.0		5.4		5.0		5.4				
Max Green Setting (Gmax), s		58.0		21.6		58.0		21.6				
Max Q Clear Time (g_c+I1), s		21.9		19.7		16.7		11.0				
Green Ext Time (p_c), s		5.3		0.3		11.7		0.9				

Intersection Summary	
HCM 7th Control Delay, s/veh	15.2
HCM 7th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	230	50	30	240	0	0	0	0	20	270	40
Future Volume (vph)	0	230	50	30	240	0	0	0	0	20	270	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Lane Util. Factor		1.00		1.00	1.00					1.00	0.95	1.00
Frpb, ped/bikes		0.98		1.00	1.00					1.00	1.00	0.86
Flpb, ped/bikes		1.00		0.94	1.00					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		1486		1551	1719					1646	3292	1232
Flt Permitted		1.00		0.26	1.00					0.95	1.00	1.00
Satd. Flow (perm)		1486		421	1719					1646	3292	1232
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	245	53	32	255	0	0	0	0	21	287	43
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	0	0	0	12
Lane Group Flow (vph)	0	292	0	32	255	0	0	0	0	21	287	31
Confl. Peds. (#/hr)	44		81	81		44	31		97			31
Confl. Bikes (#/hr)			4			3			3			4
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	2	0	0	0	0	0	0	8
Parking (#/hr)		0	0									
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		8			4					5	2	
Permitted Phases				4								2
Actuated Green, G (s)		24.6		24.6	24.6					10.0	85.5	85.5
Effective Green, g (s)		24.6		24.6	24.6					10.0	85.5	85.5
Actuated g/C Ratio		0.21		0.21	0.21					0.08	0.71	0.71
Clearance Time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		304		86	352					137	2345	877
v/s Ratio Prot		c0.20			0.15					0.01	c0.09	
v/s Ratio Perm				0.08								0.02
v/c Ratio		0.96		0.37	0.72					0.15	0.12	0.03
Uniform Delay, d1		47.2		41.1	44.5					51.1	5.4	5.1
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		40.2		2.7	7.2					0.5	0.1	0.1
Delay (s)		87.4		43.8	51.8					51.6	5.5	5.2
Level of Service		F		D	D					D	A	A
Approach Delay (s/veh)		87.4			50.9			0.0			8.2	
Approach LOS		F			D			A			A	

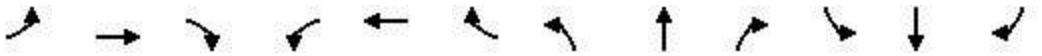
Intersection Summary			
HCM 2000 Control Delay (s/veh)	46.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	440	140	130	820	310	110	870	40	150	750	200
Future Volume (veh/h)	220	440	140	130	820	310	110	870	40	150	750	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.93	0.99		0.92	1.00		0.91	1.00		0.90
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.96	1.00	1.00	0.96
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	229	458	121	135	854	323	115	906	42	156	781	208
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	253	778	203	303	915	522	141	1016	507	182	1099	583
Arrive On Green	0.10	0.29	0.29	0.07	0.26	0.26	0.08	0.29	0.29	0.10	0.31	0.31
Sat Flow, veh/h	1767	2676	699	1767	3526	1403	1767	3526	1381	1767	3526	1367
Grp Volume(v), veh/h	229	300	279	135	854	323	115	906	42	156	781	208
Grp Sat Flow(s),veh/h/ln	1767	1763	1612	1767	1763	1403	1767	1763	1381	1767	1763	1367
Q Serve(g_s), s	11.4	17.4	17.8	6.6	28.4	22.9	7.7	29.5	2.4	10.4	23.5	12.6
Cycle Q Clear(g_c), s	11.4	17.4	17.8	6.6	28.4	22.9	7.7	29.5	2.4	10.4	23.5	12.6
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	253	513	469	303	915	522	141	1016	507	182	1099	583
V/C Ratio(X)	0.90	0.58	0.60	0.44	0.93	0.62	0.82	0.89	0.08	0.86	0.71	0.36
Avail Cap(c_a), veh/h	253	513	469	359	925	526	188	1016	507	188	1099	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	36.4	36.5	30.0	43.4	31.7	54.4	40.9	25.3	52.9	36.5	24.2
Incr Delay (d2), s/veh	32.4	1.7	2.0	1.0	15.8	2.2	18.3	11.7	0.3	29.5	3.9	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	7.7	7.2	2.9	14.2	7.9	4.1	14.4	0.8	6.1	10.7	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.3	38.1	38.5	31.0	59.3	33.9	72.7	52.7	25.6	82.5	40.4	25.9
LnGrp LOS	E	D	D	C	E	C	E	D	C	F	D	C
Approach Vol, veh/h		808			1312			1063			1145	
Approach Delay, s/veh		45.7			50.1			53.7			43.5	
Approach LOS		D			D			D			D	

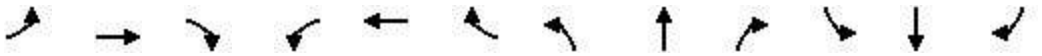
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	46.6	18.0	40.6	17.6	43.8	14.2	44.4
Change Period (Y+Rc), s	5.2	9.2	5.6	9.5	5.2	9.2	5.6	9.5
Max Green Setting (Gmax), s	12.8	33.8	12.4	31.5	12.8	33.8	12.4	31.5
Max Q Clear Time (g_c+I1), s	9.7	25.5	13.4	30.4	12.4	31.5	8.6	19.8
Green Ext Time (p_c), s	0.1	3.9	0.0	0.7	0.0	1.3	0.1	2.7

Intersection Summary	
HCM 7th Control Delay, s/veh	48.4
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	960	50	60	840	120	90	500	40	0	0	0
Future Volume (vph)	110	960	50	60	840	120	90	500	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.2		5.4	5.2			5.6				
Lane Util. Factor	1.00	0.95		1.00	0.95			0.91				
Frpb, ped/bikes	1.00	0.99		1.00	0.98			1.00				
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00				
Frt	1.00	0.99		1.00	0.98			0.99				
Flt Protected	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (prot)	1711	3309		1711	3250			4787				
Flt Permitted	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (perm)	1711	3309		1711	3250			4787				
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	113	990	52	62	866	124	93	515	41	0	0	0
RTOR Reduction (vph)	0	3	0	0	9	0	0	6	0	0	0	0
Lane Group Flow (vph)	113	1039	0	62	981	0	0	643	0	0	0	0
Confl. Peds. (#/hr)			87			84	8		12	12		8
Confl. Bikes (#/hr)			1			2						
Bus Blockages (#/hr)	0	6	0	0	6	0	0	5	0	0	0	0
Turn Type	Prot	NA		Prot	NA		Perm	NA				
Protected Phases	5	2		1	6			4				
Permitted Phases							4					
Actuated Green, G (s)	12.0	70.8		9.0	68.2			24.0				
Effective Green, g (s)	12.0	70.8		9.0	68.2			24.0				
Actuated g/C Ratio	0.10	0.59		0.08	0.57			0.20				
Clearance Time (s)	5.0	5.2		5.4	5.2			5.6				
Vehicle Extension (s)	2.0	5.0		2.0	5.0			3.0				
Lane Grp Cap (vph)	171	1952		128	1847			957				
v/s Ratio Prot	c0.07	c0.31		0.04	0.30							
v/s Ratio Perm								0.13				
v/c Ratio	0.66	0.53		0.48	0.53			0.67				
Uniform Delay, d1	52.0	14.7		53.3	16.0			44.4				
Progression Factor	1.00	1.00		1.00	1.00			1.00				
Incremental Delay, d2	7.2	1.0		1.1	1.1			1.9				
Delay (s)	59.2	15.7		54.3	17.1			46.2				
Level of Service	E	B		D	B			D				
Approach Delay (s/veh)		20.0			19.3			46.2			0.0	
Approach LOS		C			B			D			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.2
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

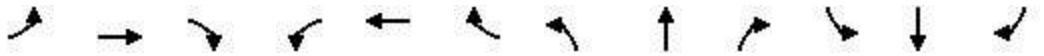


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	570	860	0	0	0	0	0	690	30	0	0	0
Future Volume (veh/h)	570	860	0	0	0	0	0	690	30	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1856	1856	0				0	1856	1856			
Adj Flow Rate, veh/h	507	1054	0				0	734	15			
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94			
Percent Heavy Veh, %	3	3	0				0	3	3			
Cap, veh/h	650	1365	0				0	2645	792			
Arrive On Green	0.37	0.37	0.00				0.00	0.52	0.52			
Sat Flow, veh/h	1767	3711	0				0	5233	1517			
Grp Volume(v), veh/h	507	1054	0				0	734	15			
Grp Sat Flow(s),veh/h/ln	1767	1856	0				0	1689	1517			
Q Serve(g_s), s	22.9	22.6	0.0				0.0	7.3	0.4			
Cycle Q Clear(g_c), s	22.9	22.6	0.0				0.0	7.3	0.4			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	650	1365	0				0	2645	792			
V/C Ratio(X)	0.78	0.77	0.00				0.00	0.28	0.02			
Avail Cap(c_a), veh/h	785	1649	0				0	2645	792			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.68	0.68			
Uniform Delay (d), s/veh	25.2	25.1	0.0				0.0	12.0	10.4			
Incr Delay (d2), s/veh	4.2	1.9	0.0				0.0	0.2	0.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.9	9.9	0.0				0.0	2.6	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.4	27.0	0.0				0.0	12.2	10.4			
LnGrp LOS	C	C						B	B			
Approach Vol, veh/h		1561						749				
Approach Delay, s/veh		27.8						12.2				
Approach LOS		C						B				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		38.1		51.9								
Change Period (Y+Rc), s		5.0		4.9								
Max Green Setting (Gmax), s		40.0		40.1								
Max Q Clear Time (g_c+I1), s		24.9		9.3								
Green Ext Time (p_c), s		8.2		5.8								

Intersection Summary	
HCM 7th Control Delay, s/veh	22.7
HCM 7th LOS	C

Notes
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	860	130	250	1000	0	0	0	0
Future Volume (veh/h)	0	0	0	0	860	130	250	1000	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1856	1856	1856	1856	0			
Adj Flow Rate, veh/h				0	887	121	258	1031	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	3	3	3	3	0			
Cap, veh/h				0	1245	170	420	1681	0			
Arrive On Green				0.00	0.40	0.40	0.13	0.13	0.00			
Sat Flow, veh/h				0	3196	423	1037	4311	0			
Grp Volume(v), veh/h				0	504	504	449	840	0			
Grp Sat Flow(s),veh/h/ln				0	1763	1763	1804	1689	0			
Q Serve(g_s), s				0.0	21.6	21.6	21.1	21.1	0.0			
Cycle Q Clear(g_c), s				0.0	21.6	21.6	21.1	21.1	0.0			
Prop In Lane				0.00		0.24	0.57		0.00			
Lane Grp Cap(c), veh/h				0	707	707	732	1370	0			
V/C Ratio(X)				0.00	0.71	0.71	0.61	0.61	0.00			
Avail Cap(c_a), veh/h				0	707	707	732	1370	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.88	0.88	0.00			
Uniform Delay (d), s/veh				0.0	22.6	22.6	32.3	32.3	0.0			
Incr Delay (d2), s/veh				0.0	6.0	6.0	3.4	1.8	0.0			
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	9.7	9.7	10.8	9.8	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	28.6	28.6	35.7	34.1	0.0			
LnGrp LOS					C	C	D	C				
Approach Vol, veh/h					1008			1289				
Approach Delay, s/veh					28.6			34.7				
Approach LOS					C			C				

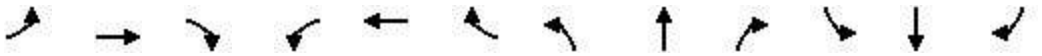
Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	45.0	45.0
Change Period (Y+Rc), s	8.5	8.9
Max Green Setting (Gmax), s	36.5	36.1
Max Q Clear Time (g_c+I1), s	23.1	23.6
Green Ext Time (p_c), s	7.2	5.4

Intersection Summary	
HCM 7th Control Delay, s/veh	32.0
HCM 7th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	40	0	1220	10	0	0	0
Future Volume (vph)	0	0	0	0	0	40	0	1220	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.1	4.1		5.0				
Lane Util. Factor					0.95	0.95		0.91				
Frpb, ped/bikes					1.00	1.00		1.00				
Flpb, ped/bikes					1.00	1.00		1.00				
Frt					0.85	0.85		1.00				
Flt Protected					1.00	1.00		1.00				
Satd. Flow (prot)					1468	1468		4958				
Flt Permitted					1.00	1.00		1.00				
Satd. Flow (perm)					1468	1468		4958				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	42	0	1284	11	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	21	21	0	1295	0	0	0	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type					NA	Prot		NA				
Protected Phases		4			3	3		2				
Permitted Phases	4											
Actuated Green, G (s)					3.0	3.0		38.8				
Effective Green, g (s)					3.0	3.0		38.8				
Actuated g/C Ratio					0.06	0.06		0.76				
Clearance Time (s)					4.1	4.1		5.0				
Vehicle Extension (s)					3.0	3.0		5.0				
Lane Grp Cap (vph)					86	86		3779				
v/s Ratio Prot					c0.01	0.01		c0.26				
v/s Ratio Perm												
v/c Ratio					0.24	0.24		0.34				
Uniform Delay, d1					22.9	22.9		1.9				
Progression Factor					1.00	1.00		1.00				
Incremental Delay, d2					1.5	1.5		0.2				
Delay (s)					24.3	24.3		2.2				
Level of Service					C	C		A				
Approach Delay (s/veh)		0.0			24.3			2.2			0.0	
Approach LOS		A			C			A			A	

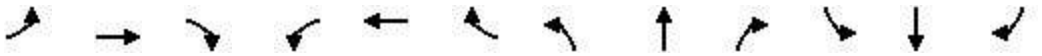
Intersection Summary			
HCM 2000 Control Delay (s/veh)	2.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	50.9	Sum of lost time (s)	13.3
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	210	530	60	20	170	0	0	630	150
Future Volume (vph)	0	0	0	210	530	60	20	170	0	0	630	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0		4.6	4.6			4.6	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.97	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3333		1709	3421			3145	
Flt Permitted					0.99		0.24	1.00			1.00	
Satd. Flow (perm)					3333		440	3421			3145	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	223	564	64	21	181	0	0	670	160
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	23	0
Lane Group Flow (vph)	0	0	0	0	844	0	21	181	0	0	807	0
Confl. Peds. (#/hr)	2		2	2		2	3		4	4		3
Confl. Bikes (#/hr)									2			2
Parking (#/hr)											0	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					40.0		40.4	40.4			40.4	
Effective Green, g (s)					40.0		40.4	40.4			40.4	
Actuated g/C Ratio					0.44		0.45	0.45			0.45	
Clearance Time (s)					5.0		4.6	4.6			4.6	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					1481		197	1535			1411	
v/s Ratio Prot								0.05			c0.26	
v/s Ratio Perm					0.25		0.05					
v/c Ratio					0.57		0.11	0.12			0.57	
Uniform Delay, d1					18.6		14.4	14.4			18.4	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					1.6		1.1	0.2			1.7	
Delay (s)					20.2		15.4	14.6			20.1	
Level of Service					C		B	B			C	
Approach Delay (s/veh)		0.0			20.2			14.7			20.1	
Approach LOS		A			C			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	60	1140	0	0	0	0	0	730	630
Future Volume (veh/h)	0	0	0	60	1140	0	0	0	0	0	730	630
Initial Q (Qb), veh				0	0	0				0	0	0
Lane Width Adj.				1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				62	1175	0				0	753	628
Peak Hour Factor				0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				81	1536	0				0	2145	633
Arrive On Green				0.15	0.15	0.00				0.00	0.42	0.42
Sat Flow, veh/h				182	3549	0				0	5274	1507
Grp Volume(v), veh/h				633	604	0				0	753	628
Grp Sat Flow(s),veh/h/ln				1861	1777	0				0	1702	1507
Q Serve(g_s), s				29.4	29.4	0.0				0.0	9.0	37.3
Cycle Q Clear(g_c), s				29.4	29.4	0.0				0.0	9.0	37.3
Prop In Lane				0.10		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				827	790	0				0	2145	633
V/C Ratio(X)				0.77	0.76	0.00				0.00	0.35	0.99
Avail Cap(c_a), veh/h				827	790	0				0	2145	633
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.56	0.56	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				33.9	33.9	0.0				0.0	17.8	26.0
Incr Delay (d2), s/veh				3.8	4.0	0.0				0.0	0.5	34.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				15.4	14.7	0.0				0.0	3.4	18.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				37.7	37.9	0.0				0.0	18.2	59.9
LnGrp LOS				D	D						B	E
Approach Vol, veh/h					1237						1381	
Approach Delay, s/veh					37.8						37.2	
Approach LOS					D						D	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	44.0	46.0
Change Period (Y+Rc), s	6.2	6.0
Max Green Setting (Gmax), s	37.8	40.0
Max Q Clear Time (g_c+I1), s	39.3	31.4
Green Ext Time (p_c), s	0.0	5.1

Intersection Summary	
HCM 7th Control Delay, s/veh	37.5
HCM 7th LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	190	170	0	530	300	0
Future Volume (veh/h)	190	170	0	530	300	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	0	1841	1841	0
Adj Flow Rate, veh/h	207	53	0	576	326	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	0	4	4	0
Cap, veh/h	975	447	0	1125	2137	0
Arrive On Green	0.29	0.29	0.00	0.61	0.61	0.00
Sat Flow, veh/h	3401	1560	0	1841	3681	0
Grp Volume(v), veh/h	207	53	0	576	326	0
Grp Sat Flow(s),veh/h/ln	1700	1560	0	1841	1749	0
Q Serve(g_s), s	4.2	2.3	0.0	15.9	3.6	0.0
Cycle Q Clear(g_c), s	4.2	2.3	0.0	15.9	3.6	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	975	447	0	1125	2137	0
V/C Ratio(X)	0.21	0.12	0.00	0.51	0.15	0.00
Avail Cap(c_a), veh/h	975	447	0	1125	2137	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.72	1.00	0.00
Uniform Delay (d), s/veh	24.4	23.7	0.0	9.9	7.5	0.0
Incr Delay (d2), s/veh	0.5	0.5	0.0	1.2	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.9	0.0	6.1	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	24.9	24.2	0.0	11.1	7.7	0.0
LnGrp LOS	C	C		B	A	
Approach Vol, veh/h	260			576	326	
Approach Delay, s/veh	24.7			11.1	7.7	
Approach LOS	C			B	A	

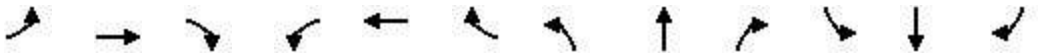
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		60.0		30.0		60.0
Change Period (Y+Rc), s		5.0		4.2		5.0
Max Green Setting (Gmax), s		55.0		25.8		55.0
Max Q Clear Time (g_c+I1), s		5.6		6.2		17.9
Green Ext Time (p_c), s		2.4		0.8		4.4

Intersection Summary		
HCM 7th Control Delay, s/veh	13.2	
HCM 7th LOS	B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	380	160	60	890	240	70	250	20	60	300	70
Future Volume (veh/h)	30	380	160	60	890	240	70	250	20	60	300	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.96	0.99		0.98	0.99		0.97
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	0.90
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	31	388	129	61	908	228	71	255	4	61	306	14
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	1409	459	129	1583	397	148	437	364	185	437	324
Arrive On Green	0.05	0.55	0.55	0.07	0.57	0.57	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	2567	836	1781	2788	699	1052	1870	1559	1111	1870	1385
Grp Volume(v), veh/h	31	266	251	61	578	558	71	255	4	61	306	14
Grp Sat Flow(s),veh/h/ln	1781	1777	1626	1781	1777	1711	1052	1870	1559	1111	1870	1385
Q Serve(g_s), s	2.0	9.5	9.9	3.9	25.0	25.1	8.0	14.5	0.2	6.2	18.0	0.9
Cycle Q Clear(g_c), s	2.0	9.5	9.9	3.9	25.0	25.1	25.9	14.5	0.2	20.7	18.0	0.9
Prop In Lane	1.00		0.51	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	975	892	129	1008	971	148	437	364	185	437	324
V/C Ratio(X)	0.32	0.27	0.28	0.47	0.57	0.57	0.48	0.58	0.01	0.33	0.70	0.04
Avail Cap(c_a), veh/h	175	975	892	175	1008	971	152	444	370	189	444	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	54.7	14.4	14.4	53.5	16.6	16.6	54.0	40.8	35.3	50.0	42.1	35.6
Incr Delay (d2), s/veh	0.7	0.7	0.8	1.0	2.4	2.5	2.4	1.9	0.0	1.0	4.7	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	0.9	3.9	3.7	1.8	10.3	10.0	2.2	6.9	0.1	1.8	8.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.4	15.1	15.2	54.5	19.0	19.1	56.4	42.7	35.3	51.0	46.8	35.6
LnGrp LOS	E	B	B	D	B	B	E	D	D	D	D	D
Approach Vol, veh/h		548			1197			330			381	
Approach Delay, s/veh		17.4			20.9			45.5			47.0	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.9	71.6		33.5	12.6	73.8		33.5				
Change Period (Y+Rc), s	6.2	5.7		5.5	6.2	5.7		5.5				
Max Green Setting (Gmax), s	11.8	62.3		28.5	11.8	62.3		28.5				
Max Q Clear Time (g_c+I1), s	5.9	11.9		27.9	4.0	27.1		22.7				
Green Ext Time (p_c), s	0.0	6.6		0.1	0.0	16.7		1.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		27.5
HCM 7th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	420	320	60	280	0	0	0	0	40	1440	90
Future Volume (vph)	0	420	320	60	280	0	0	0	0	40	1440	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.9			5.9					4.9	4.7	4.7
Lane Util. Factor		0.95			0.95					1.00	0.95	1.00
Frpb, ped/bikes		0.98			1.00					1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00					1.00	1.00	1.00
Frt		0.94			1.00					1.00	1.00	0.85
Flt Protected		1.00			0.99					0.95	1.00	1.00
Satd. Flow (prot)		3101			3354					1694	3388	1402
Flt Permitted		1.00			0.61					0.95	1.00	1.00
Satd. Flow (perm)		3101			2066					1694	3388	1402
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	438	333	63	292	0	0	0	0	42	1500	94
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	0	18
Lane Group Flow (vph)	0	750	0	0	355	0	0	0	0	42	1500	76
Confl. Peds. (#/hr)	27		22	22		27	10		13			10
Confl. Bikes (#/hr)			3			3						3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	10
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		4			8					5	2	
Permitted Phases				8								2
Actuated Green, G (s)		40.1			40.1					16.9	69.3	69.3
Effective Green, g (s)		40.1			40.1					16.9	69.3	69.3
Actuated g/C Ratio		0.33			0.33					0.14	0.58	0.58
Clearance Time (s)		5.9			5.9					4.9	4.7	4.7
Vehicle Extension (s)		5.8			5.8					2.0	4.9	4.9
Lane Grp Cap (vph)		1036			690					238	1956	809
v/s Ratio Prot		c0.24								0.02	c0.44	
v/s Ratio Perm					0.17							0.05
v/c Ratio		0.72			0.51					0.18	0.77	0.09
Uniform Delay, d1		35.1			32.1					45.4	19.2	11.3
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		4.4			2.7					0.1	2.9	0.2
Delay (s)		39.5			34.9					45.5	22.2	11.6
Level of Service		D			C					D	C	B
Approach Delay (s/veh)		39.5			34.9			0.0			22.2	
Approach LOS		D			C			A			C	

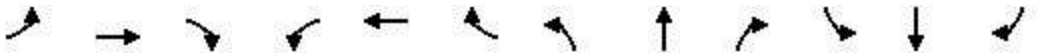
Intersection Summary			
HCM 2000 Control Delay (s/veh)	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	150	140	20	90	20	80	470	50	60	540	70
Future Volume (veh/h)	40	150	140	20	90	20	80	470	50	60	540	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	0.87		0.81	0.89		0.80	0.99		0.88	0.99		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.96	1.00	1.00	0.94
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	42	158	27	21	95	13	84	495	38	63	568	56
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	309	395	270	74	260	32	489	1233	885	545	1233	861
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	1106	1841	1257	130	1208	150	783	1841	1321	849	1841	1286
Grp Volume(v), veh/h	42	158	27	129	0	0	84	495	38	63	568	56
Grp Sat Flow(s),veh/h/ln	1106	1841	1257	1488	0	0	783	1841	1321	849	1841	1286
Q Serve(g_s), s	0.0	6.6	1.6	0.0	0.0	0.0	5.2	10.9	0.9	3.3	13.3	1.4
Cycle Q Clear(g_c), s	3.2	6.6	1.6	6.3	0.0	0.0	18.4	10.9	0.9	14.2	13.3	1.4
Prop In Lane	1.00		1.00	0.16		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	395	270	366	0	0	489	1233	885	545	1233	861
V/C Ratio(X)	0.14	0.40	0.10	0.35	0.00	0.00	0.17	0.40	0.04	0.12	0.46	0.07
Avail Cap(c_a), veh/h	398	544	372	480	0	0	489	1233	885	545	1233	861
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)	0.37	0.37	0.37	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	30.3	28.4	30.2	0.0	0.0	11.5	6.7	5.1	9.9	7.1	5.1
Incr Delay (d2), s/veh	0.1	0.2	0.1	0.6	0.0	0.0	0.8	1.0	0.1	0.4	1.2	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	0.8	3.0	0.5	2.4	0.0	0.0	0.9	3.8	0.2	0.6	4.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.1	30.6	28.4	30.8	0.0	0.0	12.3	7.7	5.1	10.4	8.3	5.3
LnGrp LOS	C	C	C	C			B	A	A	B	A	A
Approach Vol, veh/h		227			129			617			687	
Approach Delay, s/veh		30.0			30.8			8.2			8.3	
Approach LOS		C			C			A			A	

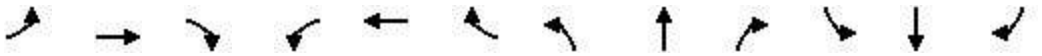
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.3		24.7		65.3		24.7				
Change Period (Y+Rc), s		5.0		5.4		5.0		5.4				
Max Green Setting (Gmax), s		53.0		26.6		53.0		26.6				
Max Q Clear Time (g_c+I1), s		16.2		8.3		20.4		8.6				
Green Ext Time (p_c), s		7.4		0.6		8.8		1.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	13.0
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	250	60	30	200	0	0	0	0	70	1140	60
Future Volume (vph)	0	250	60	30	200	0	0	0	0	70	1140	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Lane Util. Factor		1.00		1.00	1.00					1.00	0.95	1.00
Frpb, ped/bikes		0.97		1.00	1.00					1.00	1.00	0.80
Flpb, ped/bikes		1.00		0.94	1.00					1.00	1.00	1.00
Frt		0.97		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		1518		1595	1769					1694	3388	1167
Flt Permitted		1.00		0.21	1.00					0.95	1.00	1.00
Satd. Flow (perm)		1518		352	1769					1694	3388	1167
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	260	63	31	208	0	0	0	0	73	1188	63
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	15
Lane Group Flow (vph)	0	316	0	31	208	0	0	0	0	73	1188	48
Confl. Peds. (#/hr)	41		90	90		41	50		101			50
Confl. Bikes (#/hr)			2			7			5			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	2	0	0	0	0	0	0	8
Parking (#/hr)		0	0									
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		8			4					5	2	
Permitted Phases				4								2
Actuated Green, G (s)		24.7		24.7	24.7					20.0	85.4	85.4
Effective Green, g (s)		24.7		24.7	24.7					20.0	85.4	85.4
Actuated g/C Ratio		0.21		0.21	0.21					0.17	0.71	0.71
Clearance Time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		312		72	364					282	2411	830
v/s Ratio Prot		c0.21			0.12					0.04	c0.35	
v/s Ratio Perm				0.09								0.04
v/c Ratio		1.01		0.43	0.57					0.26	0.49	0.06
Uniform Delay, d1		47.7		41.5	42.9					43.5	7.7	5.2
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		54.1		4.1	2.2					0.5	0.7	0.1
Delay (s)		101.8		45.6	45.1					44.0	8.4	5.3
Level of Service		F		D	D					D	A	A
Approach Delay (s/veh)		101.8			45.1			0.0			10.2	
Approach LOS		F			D			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	550	160	160	720	230	150	850	70	140	790	120
Future Volume (veh/h)	160	550	160	160	720	230	150	850	70	140	790	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.84	1.00		0.84	1.00		0.89	1.00		0.88
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.96	1.00	1.00	0.96
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	165	567	141	165	742	237	155	876	72	144	814	124
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	235	639	158	236	850	458	181	1165	575	170	1144	564
Arrive On Green	0.09	0.24	0.24	0.09	0.24	0.24	0.10	0.33	0.33	0.10	0.32	0.32
Sat Flow, veh/h	1767	2651	654	1767	3526	1288	1767	3526	1344	1767	3526	1336
Grp Volume(v), veh/h	165	376	332	165	742	237	155	876	72	144	814	124
Grp Sat Flow(s),veh/h/ln	1767	1763	1542	1767	1763	1288	1767	1763	1344	1767	1763	1336
Q Serve(g_s), s	8.3	24.7	25.0	8.3	24.3	17.9	10.4	26.6	4.0	9.6	24.3	7.2
Cycle Q Clear(g_c), s	8.3	24.7	25.0	8.3	24.3	17.9	10.4	26.6	4.0	9.6	24.3	7.2
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	425	372	236	850	458	181	1165	575	170	1144	564
V/C Ratio(X)	0.70	0.88	0.89	0.70	0.87	0.52	0.86	0.75	0.13	0.85	0.71	0.22
Avail Cap(c_a), veh/h	265	463	405	267	925	485	188	1165	575	188	1144	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	43.9	44.1	33.2	43.8	32.3	53.0	35.8	21.6	53.3	35.6	23.0
Incr Delay (d2), s/veh	7.1	17.2	20.5	6.8	8.7	0.9	29.3	4.5	0.4	26.4	3.8	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	12.6	11.5	3.9	11.4	5.6	6.1	12.1	1.3	5.5	11.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.2	61.1	64.6	39.9	52.5	33.2	82.3	40.3	22.0	79.8	39.4	23.9
LnGrp LOS	D	E	E	D	D	C	F	D	C	E	D	C
Approach Vol, veh/h		873			1144			1103			1082	
Approach Delay, s/veh		58.5			46.7			45.0			43.0	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	48.1	16.0	38.4	16.8	48.9	16.0	38.4
Change Period (Y+Rc), s	5.2	9.2	5.6	9.5	5.2	9.2	5.6	9.5
Max Green Setting (Gmax), s	12.8	33.8	12.4	31.5	12.8	33.8	12.4	31.5
Max Q Clear Time (g_c+I1), s	12.4	26.3	10.3	26.3	11.6	28.6	10.3	27.0
Green Ext Time (p_c), s	0.0	3.5	0.1	2.6	0.0	2.8	0.1	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	47.7
HCM 7th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	115	750	83	948	750
v/c Ratio	0.76	0.43	0.56	0.53	0.75
Control Delay (s/veh)	82.8	15.5	67.4	18.0	48.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	82.8	15.5	67.4	18.0	48.8
Queue Length 50th (ft)	91	178	65	245	203
Queue Length 95th (ft)	#181	236	121	317	249
Internal Link Dist (ft)		1082		561	832
Turn Bay Length (ft)	100		100		
Base Capacity (vph)	166	1758	160	1776	1099
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.43	0.52	0.53	0.68

Intersection Summary

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

Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	568	1185	753	21
v/c Ratio	0.73	0.80	0.38	0.04
Control Delay (s/veh)	22.2	23.3	19.8	6.6
Queue Delay	0.1	0.0	0.5	0.0
Total Delay (s/veh)	22.3	23.3	20.3	6.6
Queue Length 50th (ft)	234	283	114	0
Queue Length 95th (ft)	381	376	148	14
Internal Link Dist (ft)		163	521	
Turn Bay Length (ft)				70
Base Capacity (vph)	802	1538	1969	572
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	11	3	740	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.72	0.77	0.61	0.04

Intersection Summary

Lane Group	WBT	NBT
Lane Group Flow (vph)	792	1594
v/c Ratio	0.61	0.80
Control Delay (s/veh)	23.7	26.6
Queue Delay	0.0	1.1
Total Delay (s/veh)	23.7	27.7
Queue Length 50th (ft)	186	327
Queue Length 95th (ft)	249	384
Internal Link Dist (ft)	211	210
Turn Bay Length (ft)		
Base Capacity (vph)	1292	1998
Starvation Cap Reductn	0	192
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.61	0.88

Intersection Summary

Lane Group	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	22	17	16	1330
v/c Ratio	0.08	0.08	0.08	0.33
Control Delay (s/veh)	20.2	21.3	21.5	4.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.2	21.3	21.5	4.0
Queue Length 50th (ft)	6	4	4	0
Queue Length 95th (ft)	24	23	22	149
Internal Link Dist (ft)	447	350		508
Turn Bay Length (ft)				
Base Capacity (vph)	814	799	718	4077
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	0.03	0.02	0.02	0.33

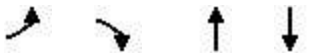
Intersection Summary

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	860	32	290	322
v/c Ratio	0.39	0.16	0.38	0.44
Control Delay (s/veh)	7.2	30.6	31.2	28.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.2	30.6	31.2	28.1
Queue Length 50th (ft)	101	15	75	73
Queue Length 95th (ft)	134	41	114	115
Internal Link Dist (ft)	1325		197	220
Turn Bay Length (ft)		25		
Base Capacity (vph)	2227	195	767	732
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	0.39	0.16	0.38	0.44

Intersection Summary

Lane Group	WBT	SBT	SBR
Lane Group Flow (vph)	747	242	326
v/c Ratio	0.50	0.12	0.50
Control Delay (s/veh)	8.8	16.2	13.6
Queue Delay	0.3	0.0	0.0
Total Delay (s/veh)	9.1	16.2	13.6
Queue Length 50th (ft)	73	31	74
Queue Length 95th (ft)	93	48	155
Internal Link Dist (ft)	218	282	
Turn Bay Length (ft)			
Base Capacity (vph)	1490	2005	647
Starvation Cap Reductn	268	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.61	0.12	0.50

Intersection Summary



Lane Group	EBL	EBR	NBT	SBT
Lane Group Flow (vph)	484	242	589	116
v/c Ratio	0.52	0.40	0.55	0.06
Control Delay (s/veh)	29.4	5.7	12.7	7.2
Queue Delay	0.0	0.0	0.7	0.0
Total Delay (s/veh)	29.4	5.7	13.4	7.2
Queue Length 50th (ft)	123	0	186	13
Queue Length 95th (ft)	173	56	280	24
Internal Link Dist (ft)	624		489	355
Turn Bay Length (ft)	350			
Base Capacity (vph)	924	598	1068	2030
Starvation Cap Reductn	0	0	198	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.52	0.40	0.68	0.06

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	32	463	63	1169	63	358	42	63	242	21
v/c Ratio	0.23	0.25	0.43	0.61	0.40	0.90	0.11	0.85	0.61	0.06
Control Delay (s/veh)	55.9	13.9	61.5	17.1	47.4	72.1	1.7	116.6	48.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.9	13.9	61.5	17.1	47.4	72.1	1.7	116.6	48.8	0.3
Queue Length 50th (ft)	24	96	49	322	42	275	0	48	172	0
Queue Length 95th (ft)	59	135	96	403	90	#441	6	#138	262	0
Internal Link Dist (ft)		658		137		375			489	
Turn Bay Length (ft)	90		95		60		50	40		60
Base Capacity (vph)	165	1851	165	1916	168	419	405	78	419	371
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.25	0.38	0.61	0.38	0.85	0.10	0.81	0.58	0.06

Intersection Summary

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

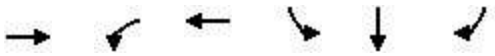
Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	684	347	32	579	84
v/c Ratio	0.58	0.48	0.15	0.30	0.10
Control Delay (s/veh)	23.4	34.5	44.9	13.5	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.4	34.5	44.9	13.5	2.6
Queue Length 50th (ft)	155	115	22	117	0
Queue Length 95th (ft)	220	164	52	153	22
Internal Link Dist (ft)	369	339		1163	
Turn Bay Length (ft)			100		100
Base Capacity (vph)	1171	720	295	1937	849
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.48	0.11	0.30	0.10

Intersection Summary

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	59	153	106	212	129	529	118	106	376	71
v/c Ratio	0.38	0.43	0.45	0.83	0.29	0.44	0.25	0.26	0.32	0.15
Control Delay (s/veh)	36.8	34.1	12.4	57.5	8.7	8.7	6.2	8.6	7.3	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	36.8	34.1	12.4	57.5	8.7	8.7	6.2	8.6	7.3	2.4
Queue Length 50th (ft)	29	76	0	106	30	139	17	24	88	0
Queue Length 95th (ft)	63	125	39	#191	58	196	40	49	128	13
Internal Link Dist (ft)		763		472		644			524	
Turn Bay Length (ft)	105		55		95		95	100		95
Base Capacity (vph)	184	419	260	295	446	1189	467	403	1189	477
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.37	0.41	0.72	0.29	0.44	0.25	0.26	0.32	0.15

Intersection Summary

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



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	298	32	255	21	287	43
v/c Ratio	0.96	0.37	0.73	0.10	0.12	0.05
Control Delay (s/veh)	88.4	55.3	57.6	43.2	5.6	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	88.4	55.3	57.6	43.2	5.6	1.6
Queue Length 50th (ft)	235	23	195	16	34	0
Queue Length 95th (ft)	#424	59	#300	38	49	11
Internal Link Dist (ft)	273		763		551	
Turn Bay Length (ft)		25		110		100
Base Capacity (vph)	312	86	353	342	2345	890
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	0.96	0.37	0.72	0.06	0.12	0.05

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	229	604	135	854	323	115	906	42	156	781	208
v/c Ratio	0.96	0.67	0.43	0.96	0.59	0.70	0.95	0.08	0.88	0.79	0.38
Control Delay (s/veh)	78.8	40.8	24.8	66.0	29.8	74.9	61.0	19.0	94.8	46.4	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.8	40.8	24.8	66.0	29.8	74.9	61.0	19.0	94.8	46.4	23.2
Queue Length 50th (ft)	128	212	63	352	177	89	371	18	124	304	101
Queue Length 95th (ft)	#297	284	107	#486	266	#166	#505	40	#250	385	160
Internal Link Dist (ft)		2238		333			805			998	
Turn Bay Length (ft)	195		115			100		100	195		195
Base Capacity (vph)	239	905	340	889	548	180	958	555	180	987	550
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.67	0.40	0.96	0.59	0.64	0.95	0.08	0.87	0.79	0.38

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	113	1042	62	990	649
v/c Ratio	0.73	0.52	0.41	0.53	0.67
Control Delay (s/veh)	79.1	16.8	60.0	17.1	47.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	79.1	16.8	60.0	17.1	47.1
Queue Length 50th (ft)	87	273	46	252	166
Queue Length 95th (ft)	#168	345	93	320	208
Internal Link Dist (ft)		1082		561	832
Turn Bay Length (ft)	100		100		
Base Capacity (vph)	171	1985	165	1884	1139
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.52	0.38	0.53	0.57

Intersection Summary

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

Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	491	1030	734	32
v/c Ratio	0.68	0.79	0.32	0.05
Control Delay (s/veh)	20.9	26.9	15.9	5.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.9	26.9	15.9	5.4
Queue Length 50th (ft)	180	259	98	0
Queue Length 95th (ft)	307	344	128	16
Internal Link Dist (ft)		163	521	
Turn Bay Length (ft)				70
Base Capacity (vph)	750	1375	2281	701
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	39	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.65	0.75	0.33	0.05

Intersection Summary

Lane Group	WBT	NBT
Lane Group Flow (vph)	1021	1289
v/c Ratio	0.76	0.65
Control Delay (s/veh)	27.4	16.4
Queue Delay	0.2	0.6
Total Delay (s/veh)	27.6	16.9
Queue Length 50th (ft)	258	144
Queue Length 95th (ft)	339	176
Internal Link Dist (ft)	211	210
Turn Bay Length (ft)		
Base Capacity (vph)	1335	1994
Starvation Cap Reductn	0	319
Spillback Cap Reductn	36	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.79	0.77

Intersection Summary

Lane Group	WBT	WBR	NBT
Lane Group Flow (vph)	21	21	1295
v/c Ratio	0.10	0.10	0.30
Control Delay (s/veh)	18.4	18.4	2.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	18.4	18.4	2.2
Queue Length 50th (ft)	6	6	0
Queue Length 95th (ft)	20	20	64
Internal Link Dist (ft)	350		508
Turn Bay Length (ft)			
Base Capacity (vph)	755	755	4263
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.03	0.03	0.30

Intersection Summary

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	851	21	181	830
v/c Ratio	0.57	0.11	0.12	0.58
Control Delay (s/veh)	20.2	16.3	14.7	19.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.2	16.3	14.7	19.4
Queue Length 50th (ft)	184	7	31	172
Queue Length 95th (ft)	244	22	51	232
Internal Link Dist (ft)	1325		197	220
Turn Bay Length (ft)		25		
Base Capacity (vph)	1488	197	1535	1434
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	0.57	0.11	0.12	0.58

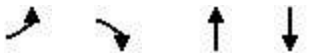
Intersection Summary

Lane Group	WBT	SBT	SBR
Lane Group Flow (vph)	1237	753	649
v/c Ratio	0.80	0.36	1.09
Control Delay (s/veh)	12.8	18.5	89.0
Queue Delay	0.9	0.0	0.0
Total Delay (s/veh)	13.8	18.5	89.0
Queue Length 50th (ft)	114	106	~413
Queue Length 95th (ft)	150	137	#629
Internal Link Dist (ft)	218	282	
Turn Bay Length (ft)			
Base Capacity (vph)	1539	2064	597
Starvation Cap Reductn	110	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.87	0.36	1.09

Intersection Summary

~ 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.



Lane Group	EBL	EBR	NBT	SBT
Lane Group Flow (vph)	207	185	576	326
v/c Ratio	0.22	0.33	0.53	0.16
Control Delay (s/veh)	25.2	5.7	12.4	7.8
Queue Delay	0.0	0.0	0.6	0.0
Total Delay (s/veh)	25.2	5.7	13.0	7.8
Queue Length 50th (ft)	47	0	178	39
Queue Length 95th (ft)	76	49	267	58
Internal Link Dist (ft)	624		489	355
Turn Bay Length (ft)	350			
Base Capacity (vph)	933	556	1079	2050
Starvation Cap Reductn	0	0	205	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.22	0.33	0.66	0.16

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	31	551	61	1153	71	255	20	61	306	71
v/c Ratio	0.22	0.30	0.41	0.56	0.80	0.70	0.05	0.48	0.84	0.21
Control Delay (s/veh)	55.4	12.1	60.6	16.1	96.7	54.3	0.3	54.4	65.2	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.4	12.1	60.6	16.1	96.7	54.3	0.3	54.4	65.2	7.8
Queue Length 50th (ft)	23	97	46	297	53	185	0	42	230	0
Queue Length 95th (ft)	56	146	92	392	#131	270	0	88	328	32
Internal Link Dist (ft)		658		137		375			489	
Turn Bay Length (ft)	90		95		60		50	40		
Base Capacity (vph)	168	1866	168	2046	104	427	414	147	427	380
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.30	0.36	0.56	0.68	0.60	0.05	0.41	0.72	0.19

Intersection Summary

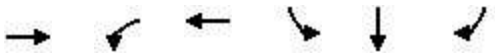
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	771	355	42	1500	94
v/c Ratio	0.73	0.51	0.17	0.77	0.11
Control Delay (s/veh)	38.5	35.4	43.8	22.6	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.5	35.4	43.8	22.6	7.0
Queue Length 50th (ft)	271	118	29	450	17
Queue Length 95th (ft)	348	169	63	547	42
Internal Link Dist (ft)	369	339		1163	
Turn Bay Length (ft)			100		100
Base Capacity (vph)	1056	690	297	1956	827
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.73	0.51	0.14	0.77	0.11

Intersection Summary

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	42	158	147	137	84	495	53	63	568	74
v/c Ratio	0.23	0.49	0.43	0.47	0.19	0.40	0.07	0.12	0.46	0.11
Control Delay (s/veh)	32.2	36.9	9.2	34.4	7.2	7.6	2.1	6.4	8.3	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	32.2	36.9	9.2	34.4	7.2	7.6	2.1	6.4	8.3	2.6
Queue Length 50th (ft)	20	78	0	63	18	125	1	13	153	2
Queue Length 95th (ft)	49	138	49	118	39	189	13	29	229	17
Internal Link Dist (ft)		763		472		644			524	
Turn Bay Length (ft)	105		55		95		95	100		95
Base Capacity (vph)	292	521	467	465	443	1238	794	508	1238	647
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.30	0.31	0.29	0.19	0.40	0.07	0.12	0.46	0.11

Intersection Summary



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	323	31	208	73	1188	63
v/c Ratio	1.01	0.43	0.57	0.24	0.49	0.07
Control Delay (s/veh)	100.0	62.0	50.0	42.2	8.5	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	100.0	62.0	50.0	42.2	8.5	2.0
Queue Length 50th (ft)	~256	22	150	48	195	2
Queue Length 95th (ft)	#455	#59	233	93	240	15
Internal Link Dist (ft)	273		763		551	
Turn Bay Length (ft)		25		110		100
Base Capacity (vph)	319	72	364	352	2411	845
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	1.01	0.43	0.57	0.21	0.49	0.07

Intersection Summary

~ 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.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	165	732	165	742	237	155	876	72	144	814	124
v/c Ratio	0.66	0.89	0.65	0.87	0.48	0.88	0.85	0.13	0.83	0.79	0.23
Control Delay (s/veh)	35.1	55.6	34.2	55.2	27.8	94.3	49.1	19.3	87.4	45.9	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.1	55.6	34.2	55.2	27.8	94.3	49.1	19.3	87.4	45.9	20.7
Queue Length 50th (ft)	79	280	79	293	121	123	354	32	113	321	57
Queue Length 95th (ft)	128	#380	128	371	188	#247	#479	61	#226	#410	98
Internal Link Dist (ft)		2238		333			805			998	
Turn Bay Length (ft)	195		115			100		100	195		195
Base Capacity (vph)	262	857	267	889	494	180	1031	551	180	1024	544
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.85	0.62	0.83	0.48	0.86	0.85	0.13	0.80	0.79	0.23

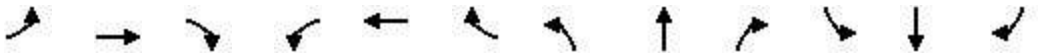
Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	610	110	110	190	140	140	530	50	0	0	0
Future Volume (vph)	110	610	110	110	190	140	140	530	50	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.2		5.4	5.2			5.6				
Lane Util. Factor	1.00	0.95		1.00	0.95			0.91				
Frpb, ped/bikes	1.00	0.93		1.00	0.92			1.00				
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00				
Frt	1.00	0.98		1.00	0.94			0.99				
Flt Protected	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (prot)	1662	2989		1662	2833			4618				
Flt Permitted	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (perm)	1662	2989		1662	2833			4618				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	115	635	115	115	198	146	146	552	52	0	0	0
RTOR Reduction (vph)	0	11	0	0	40	0	0	7	0	0	0	0
Lane Group Flow (vph)	115	739	0	115	304	0	0	743	0	0	0	0
Confl. Peds. (#/hr)			144			98	9		36	36		9
Confl. Bikes (#/hr)			3			1			3			
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	5	0	0	0	0
Turn Type	Prot	NA		Prot	NA		Perm	NA				
Protected Phases	5	2		1	6			4				
Permitted Phases							4					
Actuated Green, G (s)	11.2	67.3		10.8	67.3			25.7				
Effective Green, g (s)	11.2	67.3		10.8	67.3			25.7				
Actuated g/C Ratio	0.09	0.56		0.09	0.56			0.21				
Clearance Time (s)	5.0	5.2		5.4	5.2			5.6				
Vehicle Extension (s)	2.0	5.0		2.0	5.0			3.0				
Lane Grp Cap (vph)	155	1676		149	1588			989				
v/s Ratio Prot	c0.07	c0.25		0.07	0.11							
v/s Ratio Perm								0.16				
v/c Ratio	0.74	0.44		0.77	0.19			0.75				
Uniform Delay, d1	53.0	15.4		53.4	13.0			44.2				
Progression Factor	1.00	1.00		1.00	1.00			1.00				
Incremental Delay, d2	15.3	0.8		19.9	0.3			3.3				
Delay (s)	68.3	16.2		73.3	13.2			47.4				
Level of Service	E	B		E	B			D				
Approach Delay (s/veh)		23.1			28.3			47.4			0.0	
Approach LOS		C			C			D			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	33.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.2
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	810	890	0	0	0	0	0	750	20	0	0	0
Future Volume (veh/h)	810	890	0	0	0	0	0	750	20	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.93			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1841	1841	0				0	1841	1841			
Adj Flow Rate, veh/h	584	1269	0				0	773	9			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	4	4	0				0	4	4			
Cap, veh/h	761	1599	0				0	2290	661			
Arrive On Green	0.43	0.43	0.00				0.00	0.46	0.46			
Sat Flow, veh/h	1753	3681	0				0	5191	1451			
Grp Volume(v), veh/h	584	1269	0				0	773	9			
Grp Sat Flow(s),veh/h/ln	1753	1841	0				0	1675	1451			
Q Serve(g_s), s	25.4	26.8	0.0				0.0	8.9	0.3			
Cycle Q Clear(g_c), s	25.4	26.8	0.0				0.0	8.9	0.3			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	761	1599	0				0	2290	661			
V/C Ratio(X)	0.77	0.79	0.00				0.00	0.34	0.01			
Avail Cap(c_a), veh/h	877	1841	0				0	2290	661			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.57	0.57			
Uniform Delay (d), s/veh	21.6	22.0	0.0				0.0	15.8	13.4			
Incr Delay (d2), s/veh	3.6	2.2	0.0				0.0	0.2	0.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.6	11.4	0.0				0.0	3.3	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.2	24.2	0.0				0.0	16.0	13.4			
LnGrp LOS	C	C						B	B			
Approach Vol, veh/h		1853						782				
Approach Delay, s/veh		24.5						16.0				
Approach LOS		C						B				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		44.1		45.9								
Change Period (Y+Rc), s		5.0		4.9								
Max Green Setting (Gmax), s		45.0		35.1								
Max Q Clear Time (g_c+I1), s		28.8		10.9								
Green Ext Time (p_c), s		10.3		5.8								

Intersection Summary	
HCM 7th Control Delay, s/veh	21.9
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

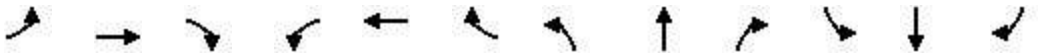
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	590	190	240	1310	0	0	0	0
Future Volume (veh/h)	0	0	0	0	590	190	240	1310	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1856	1856	1856	1856	0			
Adj Flow Rate, veh/h				0	615	193	250	1365	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	3	3	3	3	0			
Cap, veh/h				0	1050	329	326	1780	0			
Arrive On Green				0.00	0.40	0.40	0.13	0.13	0.00			
Sat Flow, veh/h				0	2710	820	804	4556	0			
Grp Volume(v), veh/h				0	414	394	565	1050	0			
Grp Sat Flow(s),veh/h/ln				0	1763	1674	1815	1689	0			
Q Serve(g_s), s				0.0	16.5	16.6	27.0	27.0	0.0			
Cycle Q Clear(g_c), s				0.0	16.5	16.6	27.0	27.0	0.0			
Prop In Lane				0.00		0.49	0.44		0.00			
Lane Grp Cap(c), veh/h				0	707	672	736	1370	0			
V/C Ratio(X)				0.00	0.59	0.59	0.77	0.77	0.00			
Avail Cap(c_a), veh/h				0	707	672	736	1370	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.83	0.83	0.00			
Uniform Delay (d), s/veh				0.0	21.1	21.1	34.9	34.9	0.0			
Incr Delay (d2), s/veh				0.0	3.5	3.7	6.3	3.5	0.0			
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	7.2	6.9	14.3	12.8	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	24.6	24.8	41.2	38.3	0.0			
LnGrp LOS					C	C	D	D				
Approach Vol, veh/h					808			1615				
Approach Delay, s/veh					24.7			39.3				
Approach LOS					C			D				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	45.0	45.0
Change Period (Y+Rc), s	8.5	8.9
Max Green Setting (Gmax), s	36.5	36.1
Max Q Clear Time (g_c+I1), s	29.0	18.6
Green Ext Time (p_c), s	5.5	5.0

Intersection Summary	
HCM 7th Control Delay, s/veh	34.5
HCM 7th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	0	0	10	20	0	1220	10	0	0	0
Future Volume (vph)	10	10	0	0	10	20	0	1220	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2			4.1	4.1		5.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frpb, ped/bikes		1.00			1.00	1.00		1.00				
Flpb, ped/bikes		1.00			1.00	1.00		1.00				
Frt		1.00			0.95	0.85		1.00				
Flt Protected		0.98			1.00	1.00		1.00				
Satd. Flow (prot)		1757			1620	1454		4910				
Flt Permitted		1.00			1.00	1.00		1.00				
Satd. Flow (perm)		1801			1620	1454		4910				
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	11	11	0	0	11	22	0	1341	11	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	22	0	0	17	16	0	1352	0	0	0	0
Confl. Peds. (#/hr)			1	1								
Turn Type	Perm	NA			NA	Prot		NA				
Protected Phases		4			3	3		2				
Permitted Phases	4											
Actuated Green, G (s)		1.6			2.8	2.8		39.1				
Effective Green, g (s)		1.6			2.8	2.8		39.1				
Actuated g/C Ratio		0.03			0.05	0.05		0.69				
Clearance Time (s)		4.2			4.1	4.1		5.0				
Vehicle Extension (s)		3.0			3.0	3.0		5.0				
Lane Grp Cap (vph)		50			79	71		3379				
v/s Ratio Prot					0.01	c0.01		c0.28				
v/s Ratio Perm		c0.01										
v/c Ratio		0.44			0.22	0.23		0.40				
Uniform Delay, d1		27.2			25.9	26.0		3.8				
Progression Factor		1.00			1.00	1.00		1.00				
Incremental Delay, d2		6.1			1.4	1.6		0.4				
Delay (s)		33.2			27.3	27.6		4.2				
Level of Service		C			C	C		A				
Approach Delay (s/veh)		33.2			27.4			4.2			0.0	
Approach LOS		C			C			A			A	

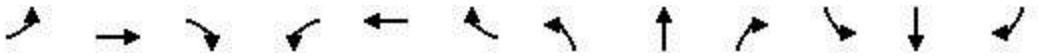
Intersection Summary			
HCM 2000 Control Delay (s/veh)	5.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	13.3
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	60	690	70	30	270	0	0	230	70
Future Volume (vph)	0	0	0	60	690	70	30	270	0	0	230	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0		4.6	4.6			4.6	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.97	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3327		1688	3388			3093	
Flt Permitted					1.00		0.48	1.00			1.00	
Satd. Flow (perm)					3327		861	3388			3093	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	0	0	65	742	75	32	290	0	0	247	75
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	32	0
Lane Group Flow (vph)	0	0	0	0	874	0	32	290	0	0	290	0
Confl. Peds. (#/hr)	1		6	6		1	4		6	6		4
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)											0	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					60.0		20.4	20.4			20.4	
Effective Green, g (s)					60.0		20.4	20.4			20.4	
Actuated g/C Ratio					0.67		0.23	0.23			0.23	
Clearance Time (s)					5.0		4.6	4.6			4.6	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					2218		195	767			701	
v/s Ratio Prot								0.09			c0.09	
v/s Ratio Perm					0.26		0.04					
v/c Ratio					0.39		0.16	0.38			0.41	
Uniform Delay, d1					6.8		28.0	29.4			29.7	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					0.5		1.8	1.4			1.8	
Delay (s)					7.3		29.8	30.9			31.5	
Level of Service					A		C	C			C	
Approach Delay (s/veh)		0.0			7.3			30.7			31.5	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	80	670	0	0	0	0	0	230	310
Future Volume (veh/h)	0	0	0	80	670	0	0	0	0	0	230	310
Initial Q (Qb), veh				0	0	0				0	0	0
Lane Width Adj.				1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1826	1826	0				0	1826	1826
Adj Flow Rate, veh/h				84	705	0				0	242	255
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				5	5	0				0	5	5
Cap, veh/h				168	1407	0				0	2094	619
Arrive On Green				0.15	0.15	0.00				0.00	0.42	0.42
Sat Flow, veh/h				377	3256	0				0	5149	1473
Grp Volume(v), veh/h				403	386	0				0	242	255
Grp Sat Flow(s),veh/h/ln				1807	1735	0				0	1662	1473
Q Serve(g_s), s				18.5	18.5	0.0				0.0	2.7	10.9
Cycle Q Clear(g_c), s				18.5	18.5	0.0				0.0	2.7	10.9
Prop In Lane				0.21		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				803	771	0				0	2094	619
V/C Ratio(X)				0.50	0.50	0.00				0.00	0.12	0.41
Avail Cap(c_a), veh/h				803	771	0				0	2094	619
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.74	0.74	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				29.2	29.2	0.0				0.0	15.9	18.3
Incr Delay (d2), s/veh				1.7	1.7	0.0				0.0	0.1	2.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.2	8.9	0.0				0.0	1.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				30.9	30.9	0.0				0.0	16.0	20.3
LnGrp LOS				C	C						B	C
Approach Vol, veh/h					789						497	
Approach Delay, s/veh					30.9						18.2	
Approach LOS					C						B	

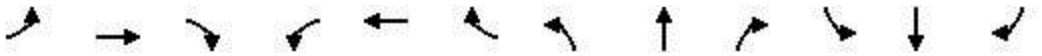
Timer - Assigned Phs	2		4
Phs Duration (G+Y+Rc), s	44.0		46.0
Change Period (Y+Rc), s	6.2		6.0
Max Green Setting (Gmax), s	37.8		40.0
Max Q Clear Time (g_c+I1), s	12.9		20.5
Green Ext Time (p_c), s	2.5		5.0

Intersection Summary		
HCM 7th Control Delay, s/veh		26.0
HCM 7th LOS		C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	460	230	0	580	110	0
Future Volume (veh/h)	460	230	0	580	110	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1781	1781	0	1781	1781	0
Adj Flow Rate, veh/h	484	69	0	611	116	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	0	8	8	0
Cap, veh/h	944	433	0	1089	2068	0
Arrive On Green	0.29	0.29	0.00	0.61	0.61	0.00
Sat Flow, veh/h	3291	1510	0	1781	3563	0
Grp Volume(v), veh/h	484	69	0	611	116	0
Grp Sat Flow(s),veh/h/ln	1646	1510	0	1781	1692	0
Q Serve(g_s), s	11.1	3.1	0.0	18.3	1.2	0.0
Cycle Q Clear(g_c), s	11.1	3.1	0.0	18.3	1.2	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	944	433	0	1089	2068	0
V/C Ratio(X)	0.51	0.16	0.00	0.56	0.06	0.00
Avail Cap(c_a), veh/h	944	433	0	1089	2068	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.39	1.00	0.00
Uniform Delay (d), s/veh	26.8	24.0	0.0	10.4	7.0	0.0
Incr Delay (d2), s/veh	2.0	0.8	0.0	0.8	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	1.2	0.0	6.6	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	28.8	24.8	0.0	11.2	7.1	0.0
LnGrp LOS	C	C		B	A	
Approach Vol, veh/h	553			611	116	
Approach Delay, s/veh	28.3			11.2	7.1	
Approach LOS	C			B	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		60.0		30.0		60.0
Change Period (Y+Rc), s		5.0		4.2		5.0
Max Green Setting (Gmax), s		55.0		25.8		55.0
Max Q Clear Time (g_c+I1), s		3.2		13.1		20.3
Green Ext Time (p_c), s		0.8		1.7		4.7

Intersection Summary		
HCM 7th Control Delay, s/veh	18.2	
HCM 7th LOS	B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	380	60	60	690	360	60	340	40	60	230	20
Future Volume (veh/h)	30	380	60	60	690	360	60	340	40	60	230	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.98	0.99		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	32	400	52	63	726	330	63	358	10	63	242	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	93	1639	211	125	1273	578	188	427	348	106	427	314
Arrive On Green	0.05	0.54	0.54	0.07	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1711	3011	388	1711	2262	1028	1075	1796	1467	967	1796	1322
Grp Volume(v), veh/h	32	225	227	63	547	509	63	358	10	63	242	5
Grp Sat Flow(s),veh/h/ln	1711	1706	1693	1711	1706	1584	1075	1796	1467	967	1796	1322
Q Serve(g_s), s	2.2	8.3	8.5	4.3	24.8	24.8	6.6	22.8	0.6	5.7	14.2	0.3
Cycle Q Clear(g_c), s	2.2	8.3	8.5	4.3	24.8	24.8	20.8	22.8	0.6	28.5	14.2	0.3
Prop In Lane	1.00		0.23	1.00		0.65	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	929	922	125	960	891	188	427	348	106	427	314
V/C Ratio(X)	0.34	0.24	0.25	0.50	0.57	0.57	0.34	0.84	0.03	0.59	0.57	0.02
Avail Cap(c_a), veh/h	168	929	922	168	960	891	188	427	348	106	427	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	54.6	14.3	14.4	53.5	16.9	16.9	49.5	43.6	35.1	57.9	40.3	35.0
Incr Delay (d2), s/veh	0.8	0.6	0.6	1.2	2.5	2.6	1.0	13.8	0.0	8.3	1.7	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	0.9	3.3	3.3	1.9	9.9	9.2	1.8	11.7	0.2	2.2	6.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.4	15.0	15.0	54.7	19.3	19.5	50.5	57.4	35.2	66.2	42.0	35.0
LnGrp LOS	E	B	B	D	B	B	D	E	D	E	D	D
Approach Vol, veh/h		484			1119			431			310	
Approach Delay, s/veh		17.7			21.4			55.9			46.8	
Approach LOS		B			C			E			D	

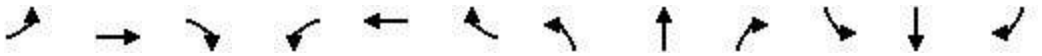
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	71.0		34.0	12.8	73.2		34.0				
Change Period (Y+Rc), s	6.2	5.7		5.5	6.2	5.7		5.5				
Max Green Setting (Gmax), s	11.8	62.3		28.5	11.8	62.3		28.5				
Max Q Clear Time (g_c+I1), s	6.3	10.5		24.8	4.2	26.8		30.5				
Green Ext Time (p_c), s	0.0	5.5		0.9	0.0	15.5		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			30.3									
HCM 7th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	320	330	80	390	0	0	0	0	30	710	80
Future Volume (vph)	0	320	330	80	390	0	0	0	0	30	710	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.9			5.9					4.9	4.7	4.7
Lane Util. Factor		0.95			0.95					1.00	0.95	1.00
Frpb, ped/bikes		0.98			1.00					1.00	1.00	0.98
Flpb, ped/bikes		1.00			1.00					1.00	1.00	1.00
Frt		0.92			1.00					1.00	1.00	0.85
Flt Protected		1.00			0.99					0.95	1.00	1.00
Satd. Flow (prot)		3041			3324					1678	3355	1409
Flt Permitted		1.00			0.61					0.95	1.00	1.00
Satd. Flow (perm)		3041			2032					1678	3355	1409
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	337	347	84	411	0	0	0	0	32	747	84
RTOR Reduction (vph)	0	131	0	0	0	0	0	0	0	0	0	32
Lane Group Flow (vph)	0	553	0	0	495	0	0	0	0	32	747	52
Confl. Peds. (#/hr)	25		15	15		25	4		12			4
Confl. Bikes (#/hr)			2			1						3
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	10
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		4			8					5	2	
Permitted Phases				8								2
Actuated Green, G (s)		40.1			40.1					12.7	69.3	69.3
Effective Green, g (s)		40.1			40.1					12.7	69.3	69.3
Actuated g/C Ratio		0.33			0.33					0.11	0.58	0.58
Clearance Time (s)		5.9			5.9					4.9	4.7	4.7
Vehicle Extension (s)		5.8			5.8					2.0	4.9	4.9
Lane Grp Cap (vph)		1016			679					177	1937	813
v/s Ratio Prot		0.18								0.02	c0.22	
v/s Ratio Perm					c0.24							0.04
v/c Ratio		0.54			0.73					0.18	0.39	0.06
Uniform Delay, d1		32.5			35.2					48.9	13.8	11.1
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		2.1			6.8					0.2	0.6	0.2
Delay (s)		34.6			41.9					49.1	14.4	11.3
Level of Service		C			D					D	B	B
Approach Delay (s/veh)		34.6			41.9			0.0			15.3	
Approach LOS		C			D			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		

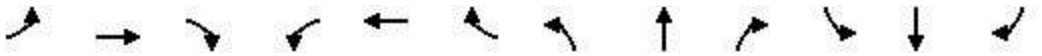
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	130	90	50	130	50	110	450	100	90	320	100
Future Volume (veh/h)	50	130	90	50	130	50	110	450	100	90	320	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.52	0.69		0.53	0.96		0.84	0.99		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.96	1.00	1.00	0.94
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	59	153	24	59	153	47	129	529	106	106	376	78
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	211	438	192	91	173	48	567	1177	809	464	1177	774
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1154	1826	801	177	723	199	882	1826	1255	770	1826	1201
Grp Volume(v), veh/h	59	153	24	259	0	0	129	529	106	106	376	78
Grp Sat Flow(s),veh/h/ln	1154	1826	801	1098	0	0	882	1826	1255	770	1826	1201
Q Serve(g_s), s	0.0	6.3	2.1	14.8	0.0	0.0	6.9	13.1	3.0	7.2	8.3	2.2
Cycle Q Clear(g_c), s	8.5	6.3	2.1	21.1	0.0	0.0	15.2	13.1	3.0	20.2	8.3	2.2
Prop In Lane	1.00		1.00	0.23		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	438	192	313	0	0	567	1177	809	464	1177	774
V/C Ratio(X)	0.28	0.35	0.12	0.83	0.00	0.00	0.23	0.45	0.13	0.23	0.32	0.10
Avail Cap(c_a), veh/h	211	438	192	313	0	0	567	1177	809	464	1177	774
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)	0.32	0.32	0.32	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	28.4	26.8	33.8	0.0	0.0	10.6	8.0	6.2	13.1	7.2	6.1
Incr Delay (d2), s/veh	0.2	0.2	0.1	16.7	0.0	0.0	0.9	1.2	0.3	1.1	0.7	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.7	0.4	7.0	0.0	0.0	1.4	4.7	0.7	1.3	3.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.5	28.5	26.9	50.5	0.0	0.0	11.5	9.3	6.5	14.2	7.9	6.3
LnGrp LOS	C	C	C	D			B	A	A	B	A	A
Approach Vol, veh/h		236			259			764			560	
Approach Delay, s/veh		28.6			50.5			9.3			8.9	
Approach LOS		C			D			A			A	

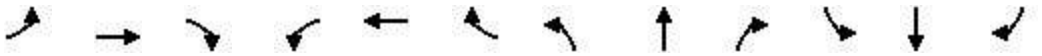
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.0		27.0		63.0		27.0				
Change Period (Y+Rc), s		5.0		5.4		5.0		5.4				
Max Green Setting (Gmax), s		58.0		21.6		58.0		21.6				
Max Q Clear Time (g_c+I1), s		22.2		23.1		17.2		10.5				
Green Ext Time (p_c), s		5.6		0.0		11.7		0.9				

Intersection Summary	
HCM 7th Control Delay, s/veh	17.5
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	230	50	90	280	0	0	0	0	20	230	40
Future Volume (vph)	0	230	50	90	280	0	0	0	0	20	230	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Lane Util. Factor		1.00		1.00	1.00					1.00	0.95	1.00
Frpb, ped/bikes		0.98		1.00	1.00					1.00	1.00	0.86
Flpb, ped/bikes		1.00		0.94	1.00					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		1486		1551	1719					1646	3292	1232
Flt Permitted		1.00		0.26	1.00					0.95	1.00	1.00
Satd. Flow (perm)		1486		424	1719					1646	3292	1232
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	245	53	96	298	0	0	0	0	21	245	43
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	0	0	0	12
Lane Group Flow (vph)	0	292	0	96	298	0	0	0	0	21	245	31
Confl. Peds. (#/hr)	44		81	81		44	31		97			31
Confl. Bikes (#/hr)			4			3			3			4
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Bus Blockages (#/hr)	0	0	0	0	2	0	0	0	0	0	0	8
Parking (#/hr)		0	0									
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		8			4					5	2	
Permitted Phases				4								2
Actuated Green, G (s)		24.7		24.7	24.7					10.0	85.4	85.4
Effective Green, g (s)		24.7		24.7	24.7					10.0	85.4	85.4
Actuated g/C Ratio		0.21		0.21	0.21					0.08	0.71	0.71
Clearance Time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		305		87	353					137	2342	876
v/s Ratio Prot		0.20			0.17					c0.01	c0.07	
v/s Ratio Perm				c0.23								0.02
v/c Ratio		0.96		1.10	0.84					0.15	0.10	0.03
Uniform Delay, d1		47.1		47.7	45.8					51.1	5.4	5.1
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		39.5		127.3	16.6					0.5	0.1	0.1
Delay (s)		86.6		174.9	62.4					51.6	5.5	5.2
Level of Service		F		F	E					D	A	A
Approach Delay (s/veh)		86.6			89.8			0.0			8.6	
Approach LOS		F			F			A			A	

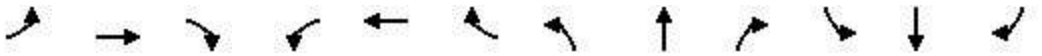
Intersection Summary			
HCM 2000 Control Delay (s/veh)	63.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	440	140	150	910	310	110	870	40	160	670	190
Future Volume (veh/h)	220	440	140	150	910	310	110	870	40	160	670	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.92	0.99		0.92	1.00		0.91	1.00		0.90
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.96	1.00	1.00	0.96
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	229	458	121	156	948	323	115	906	42	167	698	198
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	243	763	199	313	925	532	141	993	511	188	1089	578
Arrive On Green	0.10	0.29	0.29	0.08	0.26	0.26	0.08	0.28	0.28	0.11	0.31	0.31
Sat Flow, veh/h	1767	2675	698	1767	3526	1405	1767	3526	1378	1767	3526	1366
Grp Volume(v), veh/h	229	300	279	156	948	323	115	906	42	167	698	198
Grp Sat Flow(s),veh/h/ln	1767	1763	1610	1767	1763	1405	1767	1763	1378	1767	1763	1366
Q Serve(g_s), s	11.3	17.6	18.0	7.6	31.5	22.6	7.7	29.8	2.4	11.2	20.5	12.0
Cycle Q Clear(g_c), s	11.3	17.6	18.0	7.6	31.5	22.6	7.7	29.8	2.4	11.2	20.5	12.0
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	503	459	313	925	532	141	993	511	188	1089	578
V/C Ratio(X)	0.94	0.60	0.61	0.50	1.02	0.61	0.82	0.91	0.08	0.89	0.64	0.34
Avail Cap(c_a), veh/h	243	503	459	353	925	532	188	993	511	188	1089	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	36.9	37.1	29.6	44.3	31.0	54.4	41.7	25.2	52.9	35.7	24.3
Incr Delay (d2), s/veh	42.5	1.9	2.3	1.2	35.9	2.0	18.3	13.9	0.3	35.9	2.9	1.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	7.8	7.3	3.3	18.1	7.8	4.1	14.8	0.8	6.8	9.2	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	74.4	38.9	39.4	30.8	80.2	33.0	72.7	55.6	25.5	88.7	38.6	25.9
LnGrp LOS	E	D	D	C	F	C	E	E	C	F	D	C
Approach Vol, veh/h		808			1427			1063			1063	
Approach Delay, s/veh		49.1			64.1			56.3			44.1	
Approach LOS		D			E			E			D	

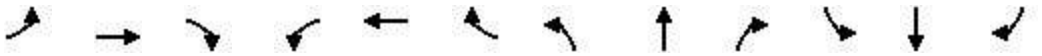
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	46.3	18.0	41.0	18.0	43.0	15.3	43.7
Change Period (Y+Rc), s	5.2	9.2	5.6	9.5	5.2	9.2	5.6	9.5
Max Green Setting (Gmax), s	12.8	33.8	12.4	31.5	12.8	33.8	12.4	31.5
Max Q Clear Time (g_c+I1), s	9.7	22.5	13.3	33.5	13.2	31.8	9.6	20.0
Green Ext Time (p_c), s	0.1	4.3	0.0	0.0	0.0	1.2	0.1	2.7

Intersection Summary	
HCM 7th Control Delay, s/veh	54.5
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	960	50	90	190	140	90	500	40	0	0	0
Future Volume (vph)	110	960	50	90	190	140	90	500	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.2		5.4	5.2			5.6				
Lane Util. Factor	1.00	0.95		1.00	0.95			0.91				
Frpb, ped/bikes	1.00	0.99		1.00	0.93			1.00				
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00				
Frt	1.00	0.99		1.00	0.94			0.99				
Flt Protected	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (prot)	1711	3309		1711	2950			4787				
Flt Permitted	0.95	1.00		0.95	1.00			0.99				
Satd. Flow (perm)	1711	3309		1711	2950			4787				
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	113	990	52	93	196	144	93	515	41	0	0	0
RTOR Reduction (vph)	0	3	0	0	46	0	0	6	0	0	0	0
Lane Group Flow (vph)	113	1039	0	93	294	0	0	643	0	0	0	0
Confl. Peds. (#/hr)			87			84	8		12	12		8
Confl. Bikes (#/hr)			1			2						
Bus Blockages (#/hr)	0	6	0	0	6	0	0	5	0	0	0	0
Turn Type	Prot	NA		Prot	NA		Perm	NA				
Protected Phases	5	2		1	6			4				
Permitted Phases							4					
Actuated Green, G (s)	11.0	69.2		10.6	69.2			24.0				
Effective Green, g (s)	11.0	69.2		10.6	69.2			24.0				
Actuated g/C Ratio	0.09	0.58		0.09	0.58			0.20				
Clearance Time (s)	5.0	5.2		5.4	5.2			5.6				
Vehicle Extension (s)	2.0	5.0		2.0	5.0			3.0				
Lane Grp Cap (vph)	156	1908		151	1701			957				
v/s Ratio Prot	c0.07	c0.31		0.05	0.10							
v/s Ratio Perm								0.13				
v/c Ratio	0.72	0.54		0.62	0.17			0.67				
Uniform Delay, d1	53.0	15.7		52.7	11.9			44.4				
Progression Factor	1.00	1.00		1.00	1.00			1.00				
Incremental Delay, d2	13.2	1.1		5.2	0.2			1.9				
Delay (s)	66.2	16.8		57.9	12.2			46.2				
Level of Service	E	B		E	B			D				
Approach Delay (s/veh)		21.6			22.0			46.2			0.0	
Approach LOS		C			C			D			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.2
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	570	860	0	0	0	0	0	710	30	0	0	0
Future Volume (veh/h)	570	860	0	0	0	0	0	710	30	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1856	1856	0				0	1856	1856			
Adj Flow Rate, veh/h	507	1054	0				0	755	15			
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94			
Percent Heavy Veh, %	3	3	0				0	3	3			
Cap, veh/h	650	1365	0				0	2645	792			
Arrive On Green	0.37	0.37	0.00				0.00	0.52	0.52			
Sat Flow, veh/h	1767	3711	0				0	5233	1517			
Grp Volume(v), veh/h	507	1054	0				0	755	15			
Grp Sat Flow(s),veh/h/ln	1767	1856	0				0	1689	1517			
Q Serve(g_s), s	22.9	22.6	0.0				0.0	7.5	0.4			
Cycle Q Clear(g_c), s	22.9	22.6	0.0				0.0	7.5	0.4			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	650	1365	0				0	2645	792			
V/C Ratio(X)	0.78	0.77	0.00				0.00	0.29	0.02			
Avail Cap(c_a), veh/h	785	1649	0				0	2645	792			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.68	0.68			
Uniform Delay (d), s/veh	25.2	25.1	0.0				0.0	12.1	10.4			
Incr Delay (d2), s/veh	4.2	1.9	0.0				0.0	0.2	0.0			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.9	9.9	0.0				0.0	2.7	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.4	27.0	0.0				0.0	12.3	10.4			
LnGrp LOS	C	C						B	B			
Approach Vol, veh/h		1561						770				
Approach Delay, s/veh		27.8						12.2				
Approach LOS		C						B				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		38.1		51.9								
Change Period (Y+Rc), s		5.0		4.9								
Max Green Setting (Gmax), s		40.0		40.1								
Max Q Clear Time (g_c+I1), s		24.9		9.5								
Green Ext Time (p_c), s		8.2		6.0								

Intersection Summary	
HCM 7th Control Delay, s/veh	22.6
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	910	130	270	1000	0	0	0	0
Future Volume (veh/h)	0	0	0	0	910	130	270	1000	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1856	1856	1856	1856	0			
Adj Flow Rate, veh/h				0	938	121	278	1031	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	3	3	3	3	0			
Cap, veh/h				0	1254	162	446	1654	0			
Arrive On Green				0.00	0.40	0.40	0.13	0.13	0.00			
Sat Flow, veh/h				0	3220	403	1099	4245	0			
Grp Volume(v), veh/h				0	529	530	455	854	0			
Grp Sat Flow(s),veh/h/ln				0	1763	1768	1801	1689	0			
Q Serve(g_s), s				0.0	23.1	23.1	21.5	21.5	0.0			
Cycle Q Clear(g_c), s				0.0	23.1	23.1	21.5	21.5	0.0			
Prop In Lane				0.00		0.23	0.61		0.00			
Lane Grp Cap(c), veh/h				0	707	709	730	1370	0			
V/C Ratio(X)				0.00	0.75	0.75	0.62	0.62	0.00			
Avail Cap(c_a), veh/h				0	707	709	730	1370	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.88	0.88	0.00			
Uniform Delay (d), s/veh				0.0	23.1	23.1	32.5	32.5	0.0			
Incr Delay (d2), s/veh				0.0	7.1	7.1	3.5	1.9	0.0			
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	10.5	10.5	11.0	10.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	30.2	30.1	36.0	34.4	0.0			
LnGrp LOS					C	C	D	C				
Approach Vol, veh/h					1059			1309				
Approach Delay, s/veh					30.2			34.9				
Approach LOS					C			C				

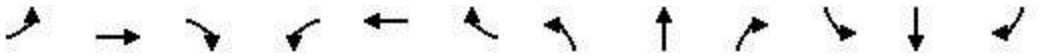
Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	45.0	45.0
Change Period (Y+Rc), s	8.5	8.9
Max Green Setting (Gmax), s	36.5	36.1
Max Q Clear Time (g_c+I1), s	23.5	25.1
Green Ext Time (p_c), s	7.1	5.2

Intersection Summary	
HCM 7th Control Delay, s/veh	32.8
HCM 7th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	40	0	1240	10	0	0	0
Future Volume (vph)	0	0	0	0	0	40	0	1240	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.1	4.1		5.0				
Lane Util. Factor					0.95	0.95		0.91				
Frpb, ped/bikes					1.00	1.00		1.00				
Flpb, ped/bikes					1.00	1.00		1.00				
Frt					0.85	0.85		1.00				
Flt Protected					1.00	1.00		1.00				
Satd. Flow (prot)					1468	1468		4958				
Flt Permitted					1.00	1.00		1.00				
Satd. Flow (perm)					1468	1468		4958				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	0	42	0	1305	11	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	21	21	0	1316	0	0	0	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type					NA	Prot		NA				
Protected Phases		4			3	3		2				
Permitted Phases	4											
Actuated Green, G (s)					3.0	3.0		38.8				
Effective Green, g (s)					3.0	3.0		38.8				
Actuated g/C Ratio					0.06	0.06		0.76				
Clearance Time (s)					4.1	4.1		5.0				
Vehicle Extension (s)					3.0	3.0		5.0				
Lane Grp Cap (vph)					86	86		3779				
v/s Ratio Prot					c0.01	0.01		c0.27				
v/s Ratio Perm												
v/c Ratio					0.24	0.24		0.35				
Uniform Delay, d1					22.9	22.9		2.0				
Progression Factor					1.00	1.00		1.00				
Incremental Delay, d2					1.5	1.5		0.3				
Delay (s)					24.3	24.3		2.2				
Level of Service					C	C		A				
Approach Delay (s/veh)		0.0			24.3			2.2			0.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	2.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	50.9	Sum of lost time (s)	13.3
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	200	570	70	20	170	0	0	630	150
Future Volume (vph)	0	0	0	200	570	70	20	170	0	0	630	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0		4.6	4.6			4.6	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.97	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3333		1709	3421			3145	
Flt Permitted					0.99		0.24	1.00			1.00	
Satd. Flow (perm)					3333		440	3421			3145	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	213	606	74	21	181	0	0	670	160
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	23	0
Lane Group Flow (vph)	0	0	0	0	886	0	21	181	0	0	807	0
Confl. Peds. (#/hr)	2		2	2		2	3		4	4		3
Confl. Bikes (#/hr)									2			2
Parking (#/hr)											0	0
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			2	
Permitted Phases				4			2					
Actuated Green, G (s)					40.0		40.4	40.4			40.4	
Effective Green, g (s)					40.0		40.4	40.4			40.4	
Actuated g/C Ratio					0.44		0.45	0.45			0.45	
Clearance Time (s)					5.0		4.6	4.6			4.6	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					1481		197	1535			1411	
v/s Ratio Prot								0.05			c0.26	
v/s Ratio Perm					0.27		0.05					
v/c Ratio					0.60		0.11	0.12			0.57	
Uniform Delay, d1					18.9		14.4	14.4			18.4	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					1.8		1.1	0.2			1.7	
Delay (s)					20.7		15.4	14.6			20.1	
Level of Service					C		B	B			C	
Approach Delay (s/veh)		0.0			20.7			14.7			20.1	
Approach LOS		A			C			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	60	1210	0	0	0	0	0	730	630
Future Volume (veh/h)	0	0	0	60	1210	0	0	0	0	0	730	630
Initial Q (Qb), veh				0	0	0				0	0	0
Lane Width Adj.				1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				62	1247	0				0	753	628
Peak Hour Factor				0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				77	1541	0				0	2145	633
Arrive On Green				0.15	0.15	0.00				0.00	0.42	0.42
Sat Flow, veh/h				172	3560	0				0	5274	1507
Grp Volume(v), veh/h				670	639	0				0	753	628
Grp Sat Flow(s),veh/h/ln				1862	1777	0				0	1702	1507
Q Serve(g_s), s				31.4	31.3	0.0				0.0	9.0	37.3
Cycle Q Clear(g_c), s				31.4	31.3	0.0				0.0	9.0	37.3
Prop In Lane				0.09		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				827	790	0				0	2145	633
V/C Ratio(X)				0.81	0.81	0.00				0.00	0.35	0.99
Avail Cap(c_a), veh/h				827	790	0				0	2145	633
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.50	0.50	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				34.7	34.7	0.0				0.0	17.8	26.0
Incr Delay (d2), s/veh				4.4	4.6	0.0				0.0	0.5	34.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				16.5	15.8	0.0				0.0	3.4	18.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				39.1	39.3	0.0				0.0	18.2	59.9
LnGrp LOS				D	D						B	E
Approach Vol, veh/h					1309						1381	
Approach Delay, s/veh					39.2						37.2	
Approach LOS					D						D	

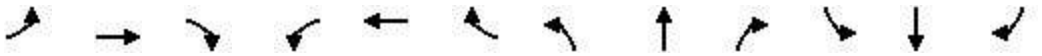
Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	44.0	46.0
Change Period (Y+Rc), s	6.2	6.0
Max Green Setting (Gmax), s	37.8	40.0
Max Q Clear Time (g_c+I1), s	39.3	33.4
Green Ext Time (p_c), s	0.0	4.3

Intersection Summary	
HCM 7th Control Delay, s/veh	38.2
HCM 7th LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	190	170	0	570	300	0
Future Volume (veh/h)	190	170	0	570	300	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	0	1826	1826	0
Adj Flow Rate, veh/h	207	53	0	620	326	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	5	0	5	5	0
Cap, veh/h	967	444	0	1116	2120	0
Arrive On Green	0.29	0.29	0.00	0.61	0.61	0.00
Sat Flow, veh/h	3374	1547	0	1826	3652	0
Grp Volume(v), veh/h	207	53	0	620	326	0
Grp Sat Flow(s),veh/h/ln	1687	1547	0	1826	1735	0
Q Serve(g_s), s	4.2	2.3	0.0	18.0	3.6	0.0
Cycle Q Clear(g_c), s	4.2	2.3	0.0	18.0	3.6	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	967	444	0	1116	2120	0
V/C Ratio(X)	0.21	0.12	0.00	0.56	0.15	0.00
Avail Cap(c_a), veh/h	967	444	0	1116	2120	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.72	1.00	0.00
Uniform Delay (d), s/veh	24.4	23.7	0.0	10.3	7.5	0.0
Incr Delay (d2), s/veh	0.5	0.5	0.0	1.4	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.9	0.0	6.9	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	24.9	24.3	0.0	11.7	7.7	0.0
LnGrp LOS	C	C		B	A	
Approach Vol, veh/h	260			620	326	
Approach Delay, s/veh	24.8			11.7	7.7	
Approach LOS	C			B	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		60.0		30.0		60.0
Change Period (Y+Rc), s		5.0		4.2		5.0
Max Green Setting (Gmax), s		55.0		25.8		55.0
Max Q Clear Time (g_c+I1), s		5.6		6.2		20.0
Green Ext Time (p_c), s		2.4		0.8		4.8

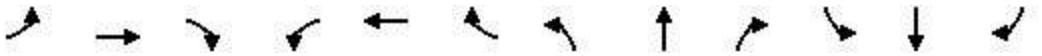
Intersection Summary	
HCM 7th Control Delay, s/veh	13.5
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	380	160	60	710	250	70	250	20	60	300	70
Future Volume (veh/h)	30	380	160	60	710	250	70	250	20	60	300	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.96	0.99		0.98	0.99		0.97
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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	31	388	129	61	724	231	71	255	4	61	306	15
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	95	1394	454	128	1472	470	148	436	364	185	436	323
Arrive On Green	0.05	0.55	0.55	0.07	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1767	2546	830	1767	2599	829	1043	1856	1546	1102	1856	1374
Grp Volume(v), veh/h	31	266	251	61	491	464	71	255	4	61	306	15
Grp Sat Flow(s),veh/h/ln	1767	1763	1613	1767	1763	1666	1043	1856	1546	1102	1856	1374
Q Serve(g_s), s	2.0	9.7	10.0	4.0	20.1	20.1	8.0	14.6	0.2	6.2	18.1	1.0
Cycle Q Clear(g_c), s	2.0	9.7	10.0	4.0	20.1	20.1	26.2	14.6	0.2	20.9	18.1	1.0
Prop In Lane	1.00		0.51	1.00		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	965	883	128	998	943	148	436	364	185	436	323
V/C Ratio(X)	0.33	0.28	0.28	0.48	0.49	0.49	0.48	0.58	0.01	0.33	0.70	0.05
Avail Cap(c_a), veh/h	174	965	883	174	998	943	150	441	367	187	441	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	54.7	14.5	14.6	53.5	15.7	15.7	54.0	40.7	35.2	49.9	42.0	35.5
Incr Delay (d2), s/veh	0.7	0.7	0.8	1.0	1.7	1.8	2.4	1.9	0.0	1.0	4.8	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.9	3.8	1.8	8.2	7.8	2.2	6.9	0.1	1.8	8.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.4	15.2	15.4	54.5	17.4	17.5	56.4	42.6	35.2	50.9	46.8	35.5
LnGrp LOS	E	B	B	D	B	B	E	D	D	D	D	D
Approach Vol, veh/h		548			1016			330			382	
Approach Delay, s/veh		17.5			19.7			45.5			47.0	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.9	71.4		33.7	12.6	73.6		33.7				
Change Period (Y+Rc), s	6.2	5.7		5.5	6.2	5.7		5.5				
Max Green Setting (Gmax), s	11.8	62.3		28.5	11.8	62.3		28.5				
Max Q Clear Time (g_c+I1), s	6.0	12.0		28.2	4.0	22.1		22.9				
Green Ext Time (p_c), s	0.0	6.6		0.1	0.0	14.0		1.0				

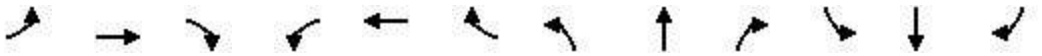
Intersection Summary												
HCM 7th Control Delay, s/veh			27.5									
HCM 7th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	420	320	80	440	0	0	0	0	40	1640	90
Future Volume (vph)	0	420	320	80	440	0	0	0	0	40	1640	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.9			5.9					4.9	4.7	4.7
Lane Util. Factor		0.95			0.95					1.00	0.95	1.00
Frpb, ped/bikes		0.98			1.00					1.00	1.00	0.96
Flpb, ped/bikes		1.00			1.00					1.00	1.00	1.00
Frt		0.94			1.00					1.00	1.00	0.85
Flt Protected		1.00			0.99					0.95	1.00	1.00
Satd. Flow (prot)		3101			3358					1694	3388	1402
Flt Permitted		1.00			0.58					0.95	1.00	1.00
Satd. Flow (perm)		3101			1962					1694	3388	1402
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	438	333	83	458	0	0	0	0	42	1708	94
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	0	16
Lane Group Flow (vph)	0	759	0	0	541	0	0	0	0	42	1708	78
Confl. Peds. (#/hr)	27		22	22		27	10		13			10
Confl. Bikes (#/hr)			3			3						3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	10
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		4			8					5	2	
Permitted Phases				8								2
Actuated Green, G (s)		40.1			40.1					16.9	69.3	69.3
Effective Green, g (s)		40.1			40.1					16.9	69.3	69.3
Actuated g/C Ratio		0.33			0.33					0.14	0.58	0.58
Clearance Time (s)		5.9			5.9					4.9	4.7	4.7
Vehicle Extension (s)		5.8			5.8					2.0	4.9	4.9
Lane Grp Cap (vph)		1036			655					238	1956	809
v/s Ratio Prot		0.24								0.02	c0.50	
v/s Ratio Perm					c0.28							0.06
v/c Ratio		0.73			0.83					0.18	0.87	0.10
Uniform Delay, d1		35.2			36.7					45.4	21.6	11.3
Progression Factor		1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2		4.6			11.4					0.1	5.8	0.2
Delay (s)		39.8			48.1					45.5	27.4	11.6
Level of Service		D			D					D	C	B
Approach Delay (s/veh)		39.8			48.1			0.0			27.0	
Approach LOS		D			D			A			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	33.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		

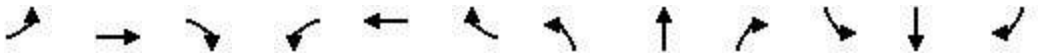
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	150	140	20	130	20	80	470	50	60	540	90
Future Volume (veh/h)	40	150	140	20	130	20	80	470	50	60	540	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	0.89		0.81	0.89		0.81	0.99		0.88	0.99		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.96	1.00	1.00	0.94
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	42	158	28	21	137	15	84	495	38	63	568	71
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	284	401	274	66	282	29	480	1227	881	542	1227	857
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	1083	1841	1261	96	1295	132	772	1841	1321	849	1841	1286
Grp Volume(v), veh/h	42	158	28	173	0	0	84	495	38	63	568	71
Grp Sat Flow(s),veh/h/ln	1083	1841	1261	1523	0	0	772	1841	1321	849	1841	1286
Q Serve(g_s), s	0.0	6.6	1.6	0.0	0.0	0.0	5.3	11.0	0.9	3.3	13.4	1.8
Cycle Q Clear(g_c), s	4.2	6.6	1.6	8.6	0.0	0.0	18.7	11.0	0.9	14.3	13.4	1.8
Prop In Lane	1.00		1.00	0.12		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	284	401	274	376	0	0	480	1227	881	542	1227	857
V/C Ratio(X)	0.15	0.39	0.10	0.46	0.00	0.00	0.18	0.40	0.04	0.12	0.46	0.08
Avail Cap(c_a), veh/h	368	544	373	490	0	0	480	1227	881	542	1227	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.37	0.37	0.37	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	30.1	28.2	30.9	0.0	0.0	11.7	6.8	5.1	10.1	7.2	5.3
Incr Delay (d2), s/veh	0.1	0.2	0.1	0.9	0.0	0.0	0.8	1.0	0.1	0.4	1.3	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.9	0.5	3.4	0.0	0.0	0.9	3.9	0.2	0.6	4.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.3	30.4	28.2	31.8	0.0	0.0	12.5	7.8	5.2	10.5	8.5	5.5
LnGrp LOS	C	C	C	C			B	A	A	B	A	A
Approach Vol, veh/h		228			173			617			702	
Approach Delay, s/veh		29.9			31.8			8.3			8.4	
Approach LOS		C			C			A			A	

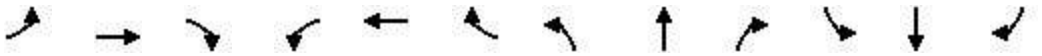
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.0		25.0		65.0		25.0				
Change Period (Y+Rc), s		5.0		5.4		5.0		5.4				
Max Green Setting (Gmax), s		53.0		26.6		53.0		26.6				
Max Q Clear Time (g_c+I1), s		16.3		10.6		20.7		8.6				
Green Ext Time (p_c), s		7.5		0.9		8.8		1.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	13.6
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	250	60	70	230	0	0	0	0	70	1050	60
Future Volume (vph)	0	250	60	70	230	0	0	0	0	70	1050	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Lane Util. Factor		1.00		1.00	1.00					1.00	0.95	1.00
Frpb, ped/bikes		0.97		1.00	1.00					1.00	1.00	0.80
Flpb, ped/bikes		1.00		0.94	1.00					1.00	1.00	1.00
Frt		0.97		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	1.00	1.00
Satd. Flow (prot)		1518		1595	1769					1694	3388	1167
Flt Permitted		1.00		0.21	1.00					0.95	1.00	1.00
Satd. Flow (perm)		1518		352	1769					1694	3388	1167
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	260	63	73	240	0	0	0	0	73	1094	63
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	16
Lane Group Flow (vph)	0	316	0	73	240	0	0	0	0	73	1094	47
Confl. Peds. (#/hr)	41		90	90		41	50		101			50
Confl. Bikes (#/hr)			2			7			5			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	2	0	0	0	0	0	0	8
Parking (#/hr)		0	0									
Turn Type		NA		Perm	NA					Prot	NA	Perm
Protected Phases		8			4					5	2	
Permitted Phases				4								2
Actuated Green, G (s)		24.7		24.7	24.7					20.0	85.4	85.4
Effective Green, g (s)		24.7		24.7	24.7					20.0	85.4	85.4
Actuated g/C Ratio		0.21		0.21	0.21					0.17	0.71	0.71
Clearance Time (s)		5.3		5.3	5.3					5.0	4.6	4.6
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		312		72	364					282	2411	830
v/s Ratio Prot		c0.21			0.14					0.04	c0.32	
v/s Ratio Perm				0.21								0.04
v/c Ratio		1.01		1.01	0.66					0.26	0.45	0.06
Uniform Delay, d1		47.7		47.7	43.8					43.5	7.4	5.2
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		54.1		110.0	4.3					0.5	0.6	0.1
Delay (s)		101.8		157.6	48.1					44.0	8.0	5.3
Level of Service		F		F	D					D	A	A
Approach Delay (s/veh)		101.8			73.6			0.0			10.0	
Approach LOS		F			E			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.9
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	550	160	180	790	230	150	850	70	160	740	120
Future Volume (veh/h)	160	550	160	180	790	230	150	850	70	160	740	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.85	1.00		0.85	1.00		0.88	1.00		0.88
Parking Bus, Adj	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.96	1.00	1.00	0.96
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	165	567	142	186	814	237	155	876	72	165	763	124
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	228	649	161	255	894	493	181	1085	554	188	1100	545
Arrive On Green	0.09	0.25	0.25	0.09	0.25	0.25	0.10	0.31	0.31	0.11	0.31	0.31
Sat Flow, veh/h	1767	2648	658	1767	3526	1299	1767	3526	1333	1767	3526	1330
Grp Volume(v), veh/h	165	376	333	186	814	237	155	876	72	165	763	124
Grp Sat Flow(s),veh/h/ln	1767	1763	1543	1767	1763	1299	1767	1763	1333	1767	1763	1330
Q Serve(g_s), s	8.3	24.6	24.9	9.3	26.9	17.1	10.4	27.5	4.1	11.0	22.8	7.4
Cycle Q Clear(g_c), s	8.3	24.6	24.9	9.3	26.9	17.1	10.4	27.5	4.1	11.0	22.8	7.4
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	432	378	255	894	493	181	1085	554	188	1100	545
V/C Ratio(X)	0.72	0.87	0.88	0.73	0.91	0.48	0.86	0.81	0.13	0.88	0.69	0.23
Avail Cap(c_a), veh/h	258	463	405	270	925	504	188	1085	554	188	1100	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	43.5	43.6	32.5	43.4	30.0	53.0	38.2	22.6	52.8	36.2	24.0
Incr Delay (d2), s/veh	8.4	15.6	18.7	9.1	12.6	0.7	29.3	6.5	0.5	33.7	3.6	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	12.4	11.3	4.6	13.1	5.4	6.1	12.7	1.4	6.7	10.3	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.5	59.1	62.3	41.6	56.0	30.8	82.3	44.7	23.1	86.5	39.9	25.0
LnGrp LOS	D	E	E	D	E	C	F	D	C	F	D	C
Approach Vol, veh/h		874			1237			1103			1052	
Approach Delay, s/veh		57.0			49.0			48.6			45.4	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	46.6	15.9	39.9	18.0	46.1	17.0	38.9
Change Period (Y+Rc), s	5.2	9.2	5.6	9.5	5.2	9.2	5.6	9.5
Max Green Setting (Gmax), s	12.8	33.8	12.4	31.5	12.8	33.8	12.4	31.5
Max Q Clear Time (g_c+I1), s	12.4	24.8	10.3	28.9	13.0	29.5	11.3	26.9
Green Ext Time (p_c), s	0.0	3.8	0.1	1.6	0.0	2.4	0.1	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	49.7
HCM 7th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	115	750	115	344	750
v/c Ratio	0.75	0.44	0.78	0.21	0.75
Control Delay (s/veh)	80.9	16.4	85.5	10.3	48.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.9	16.4	85.5	10.3	48.8
Queue Length 50th (ft)	88	171	88	49	195
Queue Length 95th (ft)	#174	227	#178	78	239
Internal Link Dist (ft)		1082		561	832
Turn Bay Length (ft)	100		100		
Base Capacity (vph)	166	1689	160	1630	1099
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.44	0.72	0.21	0.68

Intersection Summary

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

Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	568	1185	773	21
v/c Ratio	0.73	0.80	0.39	0.04
Control Delay (s/veh)	22.5	23.3	19.9	6.6
Queue Delay	0.1	0.0	0.6	0.0
Total Delay (s/veh)	22.6	23.3	20.5	6.6
Queue Length 50th (ft)	229	274	114	0
Queue Length 95th (ft)	372	365	148	13
Internal Link Dist (ft)		163	521	
Turn Bay Length (ft)				70
Base Capacity (vph)	800	1538	1969	572
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	10	3	740	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.72	0.77	0.63	0.04

Intersection Summary

Lane Group	WBT	NBT
Lane Group Flow (vph)	813	1615
v/c Ratio	0.63	0.81
Control Delay (s/veh)	24.0	26.7
Queue Delay	0.0	1.1
Total Delay (s/veh)	24.0	27.9
Queue Length 50th (ft)	188	324
Queue Length 95th (ft)	251	381
Internal Link Dist (ft)	211	210
Turn Bay Length (ft)		
Base Capacity (vph)	1294	1996
Starvation Cap Reductn	0	176
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.63	0.89

Intersection Summary

Lane Group	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	22	17	16	1352
v/c Ratio	0.08	0.08	0.08	0.33
Control Delay (s/veh)	20.2	21.3	21.5	4.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.2	21.3	21.5	4.1
Queue Length 50th (ft)	5	4	4	0
Queue Length 95th (ft)	24	22	21	150
Internal Link Dist (ft)	447	350		508
Turn Bay Length (ft)				
Base Capacity (vph)	814	799	718	4077
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	0.03	0.02	0.02	0.33

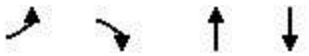
Intersection Summary

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	882	32	290	322
v/c Ratio	0.40	0.16	0.38	0.44
Control Delay (s/veh)	7.2	30.6	31.2	28.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.2	30.6	31.2	28.1
Queue Length 50th (ft)	102	15	73	72
Queue Length 95th (ft)	135	40	111	112
Internal Link Dist (ft)	1325		197	220
Turn Bay Length (ft)		25		
Base Capacity (vph)	2224	195	767	732
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	0.40	0.16	0.38	0.44

Intersection Summary

Lane Group	WBT	SBT	SBR
Lane Group Flow (vph)	789	242	326
v/c Ratio	0.53	0.12	0.51
Control Delay (s/veh)	9.2	16.2	14.9
Queue Delay	0.4	0.0	0.0
Total Delay (s/veh)	9.6	16.2	14.9
Queue Length 50th (ft)	77	30	79
Queue Length 95th (ft)	97	46	158
Internal Link Dist (ft)	218	282	
Turn Bay Length (ft)			
Base Capacity (vph)	1491	2005	637
Starvation Cap Reductn	273	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.65	0.12	0.51

Intersection Summary



Lane Group	EBL	EBR	NBT	SBT
Lane Group Flow (vph)	484	242	611	116
v/c Ratio	0.54	0.41	0.59	0.06
Control Delay (s/veh)	29.7	5.8	13.5	7.2
Queue Delay	0.0	0.0	0.7	0.0
Total Delay (s/veh)	29.7	5.8	14.2	7.2
Queue Length 50th (ft)	119	0	192	12
Queue Length 95th (ft)	168	54	291	23
Internal Link Dist (ft)	624		489	355
Turn Bay Length (ft)	350			
Base Capacity (vph)	898	587	1039	1974
Starvation Cap Reductn	0	0	168	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.54	0.41	0.70	0.06

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	32	463	63	1105	63	358	42	63	242	21
v/c Ratio	0.24	0.26	0.44	0.60	0.40	0.92	0.11	0.82	0.62	0.06
Control Delay (s/veh)	56.2	14.2	62.1	16.4	47.3	74.1	1.7	107.8	49.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.2	14.2	62.1	16.4	47.3	74.1	1.7	107.8	49.1	0.4
Queue Length 50th (ft)	24	93	47	280	41	269	0	46	167	0
Queue Length 95th (ft)	57	131	94	356	88	#437	5	#132	256	0
Internal Link Dist (ft)		658		137		375			489	
Turn Bay Length (ft)	90		95		60		50	40		60
Base Capacity (vph)	160	1787	160	1850	165	407	395	80	407	362
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.26	0.39	0.60	0.38	0.88	0.11	0.79	0.59	0.06

Intersection Summary

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

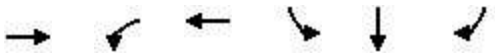
Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	684	495	32	747	84
v/c Ratio	0.60	0.73	0.15	0.39	0.10
Control Delay (s/veh)	25.5	42.7	44.9	14.5	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.5	42.7	44.9	14.5	3.3
Queue Length 50th (ft)	164	176	21	157	2
Queue Length 95th (ft)	228	244	51	199	24
Internal Link Dist (ft)	369	339		1163	
Turn Bay Length (ft)			100		100
Base Capacity (vph)	1147	678	295	1937	845
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.60	0.73	0.11	0.39	0.10

Intersection Summary

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	59	153	106	271	129	529	118	106	376	118
v/c Ratio	0.39	0.39	0.42	0.89	0.30	0.46	0.26	0.28	0.33	0.25
Control Delay (s/veh)	37.7	32.4	11.6	62.3	9.3	9.4	6.4	9.1	7.9	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.7	32.4	11.6	62.3	9.3	9.4	6.4	9.1	7.9	2.6
Queue Length 50th (ft)	28	73	0	139	29	137	17	23	87	0
Queue Length 95th (ft)	62	121	37	#249	56	188	39	48	123	16
Internal Link Dist (ft)		763		472		644			524	
Turn Bay Length (ft)	105		55		95		95	100		95
Base Capacity (vph)	160	419	260	325	429	1153	454	385	1153	481
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.37	0.41	0.83	0.30	0.46	0.26	0.28	0.33	0.25

Intersection Summary

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



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	298	96	298	21	245	43
v/c Ratio	0.96	1.10	0.84	0.10	0.10	0.05
Control Delay (s/veh)	87.2	172.6	67.7	43.2	5.5	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	87.2	172.6	67.7	43.2	5.5	1.6
Queue Length 50th (ft)	225	~84	224	16	27	0
Queue Length 95th (ft)	#405	#197	#374	36	40	10
Internal Link Dist (ft)	273		763		551	
Turn Bay Length (ft)		25		110		100
Base Capacity (vph)	312	87	353	342	2342	889
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	0.96	1.10	0.84	0.06	0.10	0.05

Intersection Summary

~ 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.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	229	604	156	948	323	115	906	42	167	698	198
v/c Ratio	0.95	0.68	0.49	1.07	0.59	0.70	0.95	0.08	0.93	0.71	0.36
Control Delay (s/veh)	76.6	41.3	26.3	92.0	29.7	74.9	61.9	18.9	104.1	42.9	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	76.6	41.3	26.3	92.0	29.7	74.9	61.9	18.9	104.1	42.9	22.8
Queue Length 50th (ft)	125	210	72	~426	173	87	362	18	130	257	93
Queue Length 95th (ft)	#286	277	119	#558	260	#162	#493	39	#265	328	149
Internal Link Dist (ft)		2238		333			805			998	
Turn Bay Length (ft)	195		115			100		100	195		195
Base Capacity (vph)	241	894	336	889	548	180	954	553	180	987	550
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.68	0.46	1.07	0.59	0.64	0.95	0.08	0.93	0.71	0.36

Intersection Summary

~ 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.

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Group Flow (vph)	113	1042	93	340	649
v/c Ratio	0.72	0.55	0.62	0.19	0.67
Control Delay (s/veh)	78.5	17.7	70.6	9.0	47.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.5	17.7	70.6	9.0	47.1
Queue Length 50th (ft)	86	269	70	44	164
Queue Length 95th (ft)	#165	340	127	71	205
Internal Link Dist (ft)		1082		561	832
Turn Bay Length (ft)	100		100		
Base Capacity (vph)	171	1911	165	1746	1139
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.55	0.56	0.19	0.57

Intersection Summary

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

Lane Group	EBL	EBT	NBT	NBR
Lane Group Flow (vph)	491	1030	755	32
v/c Ratio	0.69	0.79	0.33	0.05
Control Delay (s/veh)	21.5	26.9	16.0	5.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.5	26.9	16.0	5.4
Queue Length 50th (ft)	180	253	99	0
Queue Length 95th (ft)	305	336	129	16
Internal Link Dist (ft)		163	521	
Turn Bay Length (ft)				70
Base Capacity (vph)	746	1375	2281	701
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	41	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.66	0.75	0.34	0.05

Intersection Summary

Lane Group	WBT	NBT
Lane Group Flow (vph)	1072	1309
v/c Ratio	0.80	0.66
Control Delay (s/veh)	28.9	16.4
Queue Delay	0.6	0.6
Total Delay (s/veh)	29.6	17.0
Queue Length 50th (ft)	272	143
Queue Length 95th (ft)	355	172
Internal Link Dist (ft)	211	210
Turn Bay Length (ft)		
Base Capacity (vph)	1336	1992
Starvation Cap Reductn	0	309
Spillback Cap Reductn	68	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.85	0.78

Intersection Summary

Lane Group	WBT	WBR	NBT
Lane Group Flow (vph)	21	21	1316
v/c Ratio	0.10	0.10	0.31
Control Delay (s/veh)	18.4	18.4	2.2
Queue Delay	0.0	0.0	0.0
Total Delay (s/veh)	18.4	18.4	2.2
Queue Length 50th (ft)	6	6	0
Queue Length 95th (ft)	20	20	65
Internal Link Dist (ft)	350		508
Turn Bay Length (ft)			
Base Capacity (vph)	755	755	4263
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.03	0.03	0.31

Intersection Summary

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	893	21	181	830
v/c Ratio	0.60	0.11	0.12	0.58
Control Delay (s/veh)	20.7	16.3	14.7	19.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.7	16.3	14.7	19.4
Queue Length 50th (ft)	193	7	30	169
Queue Length 95th (ft)	255	22	50	228
Internal Link Dist (ft)	1325		197	220
Turn Bay Length (ft)		25		
Base Capacity (vph)	1488	197	1535	1434
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	0.60	0.11	0.12	0.58

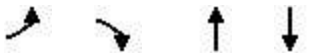
Intersection Summary

Lane Group	WBT	SBT	SBR
Lane Group Flow (vph)	1309	753	649
v/c Ratio	0.85	0.36	1.09
Control Delay (s/veh)	14.9	18.5	89.0
Queue Delay	1.8	0.0	0.0
Total Delay (s/veh)	16.7	18.5	89.0
Queue Length 50th (ft)	120	104	~407
Queue Length 95th (ft)	170	135	#619
Internal Link Dist (ft)	218	282	
Turn Bay Length (ft)			
Base Capacity (vph)	1539	2064	597
Starvation Cap Reductn	110	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.92	0.36	1.09

Intersection Summary

~ 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.



Lane Group	EBL	EBR	NBT	SBT
Lane Group Flow (vph)	207	185	620	326
v/c Ratio	0.22	0.34	0.58	0.16
Control Delay (s/veh)	25.3	5.8	13.3	7.8
Queue Delay	0.0	0.0	0.7	0.0
Total Delay (s/veh)	25.3	5.8	14.0	7.8
Queue Length 50th (ft)	46	0	194	38
Queue Length 95th (ft)	74	48	291	56
Internal Link Dist (ft)	624		489	355
Turn Bay Length (ft)	350			
Base Capacity (vph)	924	552	1068	2030
Starvation Cap Reductn	0	0	187	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.22	0.34	0.70	0.16

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	31	551	61	979	71	255	20	61	306	71
v/c Ratio	0.22	0.30	0.42	0.49	0.80	0.70	0.05	0.48	0.84	0.21
Control Delay (s/veh)	55.5	12.2	60.8	14.4	97.4	54.4	0.3	54.2	65.5	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.5	12.2	60.8	14.4	97.4	54.4	0.3	54.2	65.5	7.8
Queue Length 50th (ft)	23	96	46	226	52	182	0	42	226	0
Queue Length 95th (ft)	55	145	90	301	#129	267	0	87	324	32
Internal Link Dist (ft)		658		137		375			489	
Turn Bay Length (ft)	90		95		60		50	40		
Base Capacity (vph)	166	1845	166	2009	103	423	411	147	423	377
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.30	0.37	0.49	0.69	0.60	0.05	0.41	0.72	0.19

Intersection Summary

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

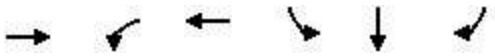
Lane Group	EBT	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	771	541	42	1708	94
v/c Ratio	0.74	0.83	0.17	0.87	0.11
Control Delay (s/veh)	39.4	48.9	43.8	27.9	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	39.4	48.9	43.8	27.9	7.5
Queue Length 50th (ft)	270	201	28	563	19
Queue Length 95th (ft)	345	#295	61	684	43
Internal Link Dist (ft)	369	339		1163	
Turn Bay Length (ft)			100		100
Base Capacity (vph)	1048	655	297	1956	825
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.83	0.14	0.87	0.11

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	42	158	147	179	84	495	53	63	568	95
v/c Ratio	0.27	0.48	0.42	0.58	0.19	0.40	0.07	0.13	0.46	0.15
Control Delay (s/veh)	33.6	36.4	9.0	38.8	7.3	7.7	2.1	6.5	8.4	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.6	36.4	9.0	38.8	7.3	7.7	2.1	6.5	8.4	2.5
Queue Length 50th (ft)	19	76	0	84	17	122	1	12	148	3
Queue Length 95th (ft)	49	134	47	148	38	183	12	28	222	19
Internal Link Dist (ft)		763		472		644			524	
Turn Bay Length (ft)	105		55		95		95	100		95
Base Capacity (vph)	248	521	467	477	438	1230	790	502	1230	649
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.30	0.31	0.38	0.19	0.40	0.07	0.13	0.46	0.15

Intersection Summary



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	323	73	240	73	1094	63
v/c Ratio	1.01	1.01	0.66	0.24	0.45	0.07
Control Delay (s/veh)	100.0	159.0	53.6	42.2	8.1	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	100.0	159.0	53.6	42.2	8.1	1.8
Queue Length 50th (ft)	~250	~57	172	47	169	1
Queue Length 95th (ft)	#444	#159	263	91	207	14
Internal Link Dist (ft)	273		763		551	
Turn Bay Length (ft)		25		110		100
Base Capacity (vph)	319	72	364	352	2411	846
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	1.01	1.01	0.66	0.21	0.45	0.07

Intersection Summary

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Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	165	732	186	814	237	155	876	72	165	763	124
v/c Ratio	0.71	0.87	0.71	0.93	0.47	0.88	0.88	0.14	0.92	0.76	0.24
Control Delay (s/veh)	40.4	53.5	37.6	61.1	27.0	94.3	52.4	19.4	101.8	44.9	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	40.4	53.5	37.6	61.1	27.0	94.3	52.4	19.4	101.8	44.9	21.0
Queue Length 50th (ft)	77	273	88	323	118	120	346	31	129	288	55
Queue Length 95th (ft)	#148	#371	#147	#440	183	#241	#468	60	#262	365	95
Internal Link Dist (ft)		2238		333			805			998	
Turn Bay Length (ft)	195		115			100		100	195		195
Base Capacity (vph)	245	857	271	889	503	180	993	538	180	998	535
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.85	0.69	0.92	0.47	0.86	0.88	0.13	0.92	0.76	0.23

Intersection Summary

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