Troutdale Village
Transportation Analysis

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EXECUTIVE SUMMARY

Purpose of the Report

The purpose of this transportation analysis (TA) report is to identify and document potential traffic deficiencies related to the proposed Troutdale Village project in the City of La Quinta. This technical report will also recommend transportation improvements to address potential project deficiencies to local and regional transportation facilities.

Project Overview

The project will be developed on a vacant site located on the northeast corner of Washington Street and Avenue 50. Access to the project site will be provided via two driveways along Washington Street and Avenue 50 respectively. The subject project is proposing the construction of eleven (11) residential buildings including one hundred seventy eight (178) multifamily (low-rise) housing units, seventy four (74) affordable housing units and one (1) clubhouse with amenities.

The project trip generation was calculated using the ITE Trip Generation Manual (11th Edition). It is estimated that the project will generate 1,556 total daily trips, 108 AM peak hour trips and 125 PM peak hour trips. Project trip distribution and assignment were developed, in coordination with the City of La Quinta staff, based on the land use characteristics of the proposed project and surrounding area, existing travel patterns within the study area, anticipated travel patterns to and from the project site, and approved projects located in the vicinity of the project site. Project scenarios and study area were then established in coordination with City staff to determine the potential project deficiencies on the transportation network. Refer to **Appendix A** for approved scoping agreement.

Project Scenarios:

- Existing Conditions (2023)
- Project Completion Year 2025 (Existing Plus Ambient Plus Project) Conditions
- Cumulative Year 2025 (Existing Plus Ambient Plus Cumulative Plus Project) Conditions

Study Area Intersections:

1. Washington Street and Avenue 50
2. Washington Street and Sagebrush Avenue
3. Washington Street and Eisenhower Drive/Rancho La Quinta Drive
4. Washington Street and Avenue 48
5. Moon River Drive/Park Avenue and Avenue 50

Analysis Results and Recommendations

Existing Conditions (2023) Scenario

All study area intersections operate at acceptable level of service (LOS) under Existing Conditions 2023 except for Moon River Drive/Park Avenue and Avenue 50. Additionally, the westbound left turn movement at the subject intersection experiences excess queue demand. These deficiencies are due to the AM student drop off for Harry S Truman Elementary School. Therefore, no improvements are required by this project.

All roadway segments have capacity at an acceptable LOS under Existing Conditions.

Project Completion Scenario

All study area intersections operate at acceptable LOS under Project Completion Conditions except for Moon River Drive/Park Avenue and Avenue 50. Additionally, the westbound left turn movement at the subject intersection is anticipated to continue to experience excess queue demand. As demonstrated, the deficient operations at this intersection are existing and due to the AM student drop off for Harry S Truman Elementary School. Therefore, no improvements are required by this project.

All roadway segments have capacity at an acceptable LOS under Project Completion Conditions.

Cumulative Scenario

All study area intersections operate at acceptable LOS under Cumulative except for Moon River Drive/Park Avenue and Avenue 50. Additionally, the westbound left turn movement at the subject intersection is anticipated to continue to experience excess queue demand. As demonstrated, the deficient operations at this intersection are existing and due to the AM student drop off for Harry S Truman Elementary School. Therefore, no improvements are required by this project.

All roadway segments have capacity at an acceptable LOS under Cumulative Conditions.

Vehicle Miles Traveled

Per the City of La Quinta Vehicle Miles Traveled (VMT) Analysis Policy (June 2021), the project can be presumed to not have a significant transportation related CEQA impact by qualifying for the small project and local serving project screening criterion as an affordable housing and small project with multi-family (low-rise) housing projects less than or equal to 200 dwelling units.

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1.0 PROJECT INTRODUCTION

This transportation analysis (TA) report has been prepared for Troutdale Village project. The project will be developed on a vacant site located at the northeast corner of Washington Street and Avenue 50.

PROJECT DESCRIPTION

The subject project is proposing the construction of eleven (11) residential buildings including one hundred seventy eight (178) multifamily (low-rise) units, seventy four (74) affordable units and one (1) clubhouse with amenities. Access to the project site will be provided via two driveways along Washington Street and Avenue 50 respectively.

Figure 1-1 shows the project site plan.

STUDY AREA

The study area for this project was developed consistent with the County of Riverside Transportation Analysis Guidelines, including all intersections of "Collector" or higher classification streets with "Collector" or higher classification streets, at which the proposed project will add 50 or more peak hour trips. IEG prepared a project traffic study scoping agreement defining the study area, which was reviewed and approved by City of La Quinta staff prior to the preparation of this technical report. Refer to **Appendix A** for approved scoping agreement.

Figure 1-2 presents the study area that includes the following key locations:

Intersections

1. Washington Street and Avenue 50
2. Washington Street and Sagebrush Avenue
3. Washington Street and Eisenhower Drive/Rancho La Quinta Drive
4. Washington Street and Avenue 48
5. Moon River Drive/Park Avenue and Avenue 50

Roadway Segments

1. Washington Street, north of Avenue 50
2. Washington Street, south of Avenue 50
3. Avenue 50, west of Washington Street
4. Avenue 50, east of Washington Street

Turning movement counts for one weekday during the morning and evening peak hours and average daily traffic (ADT) counts were conducted on Thursday March 30, 2023. The turning movement and ADT counts are included in **Appendix B.** These counts will be utilized in Synchro 11 software to determine LOS at all study intersections and for roadway segment capacity analysis. Existing Plus Ambient Growth without Project traffic volumes will be developed by adding a 2% annual growth for two years to the existing counts.

PROJECT TRIP GENERATION

The trip generation is a measure or forecast of the number of trips that begin or end at the project site. These trips will result in some traffic increases on the streets where they occur. The rates used in this analysis were determined using *Trip Generation, 11th Edition*, published by the Institute of Transportation Engineers (ITE) that is the method preferred by the County of Riverside TA Guidelines. Project ITE average trip generation rates are presented in **Table 1-1**.

Table 1-1
Project Trip Generation Rate

Land Use	Units[1]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Multifamily Housing (Low Rise)	DU	220	0.10	0.30	0.40	0.32	0.19	0.51	6.74
Affordable Housing (Income Limits)	DU	223	0.15	0.36	0.50	0.27	0.19	0.46	4.81

Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021)
[1] DU = Dwelling Unit

Tables 1-2 summarizes the calculated trip generation based on the number of dwelling units associated with the proposed Project. As shown on Table 1-2, the proposed development is anticipated to generate approximately 1,556 total daily trips, 108 AM peak hour trips and 125 PM peak hour trips.

Table 1-2
Project Trip Generation

Land Use	Intensity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Multifamily Housing (Low Rise)	178	DU	17	54	71	57	34	91	1,200
Affordable Housing (Income Limits)	74	DU	11	26	37	20	14	34	356
		Total	***28***	***80***	***108***	***77***	***48***	***125***	***1,556***

Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021)
[1] DU = Dwelling Unit

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution and assignment is the process of identifying the probable destinations, directions and traffic routes that project related traffic will affect. Once the proposed development's trips have been estimated, they are assigned to the study area network. For this development, the project trip distribution and assignment were developed, in coordination with City staff, based on the land use characteristics of the proposed project and surrounding area, existing travel patterns within the study area, anticipated travel patterns to and from the project site, and approved projects located in the vicinity of the project site.

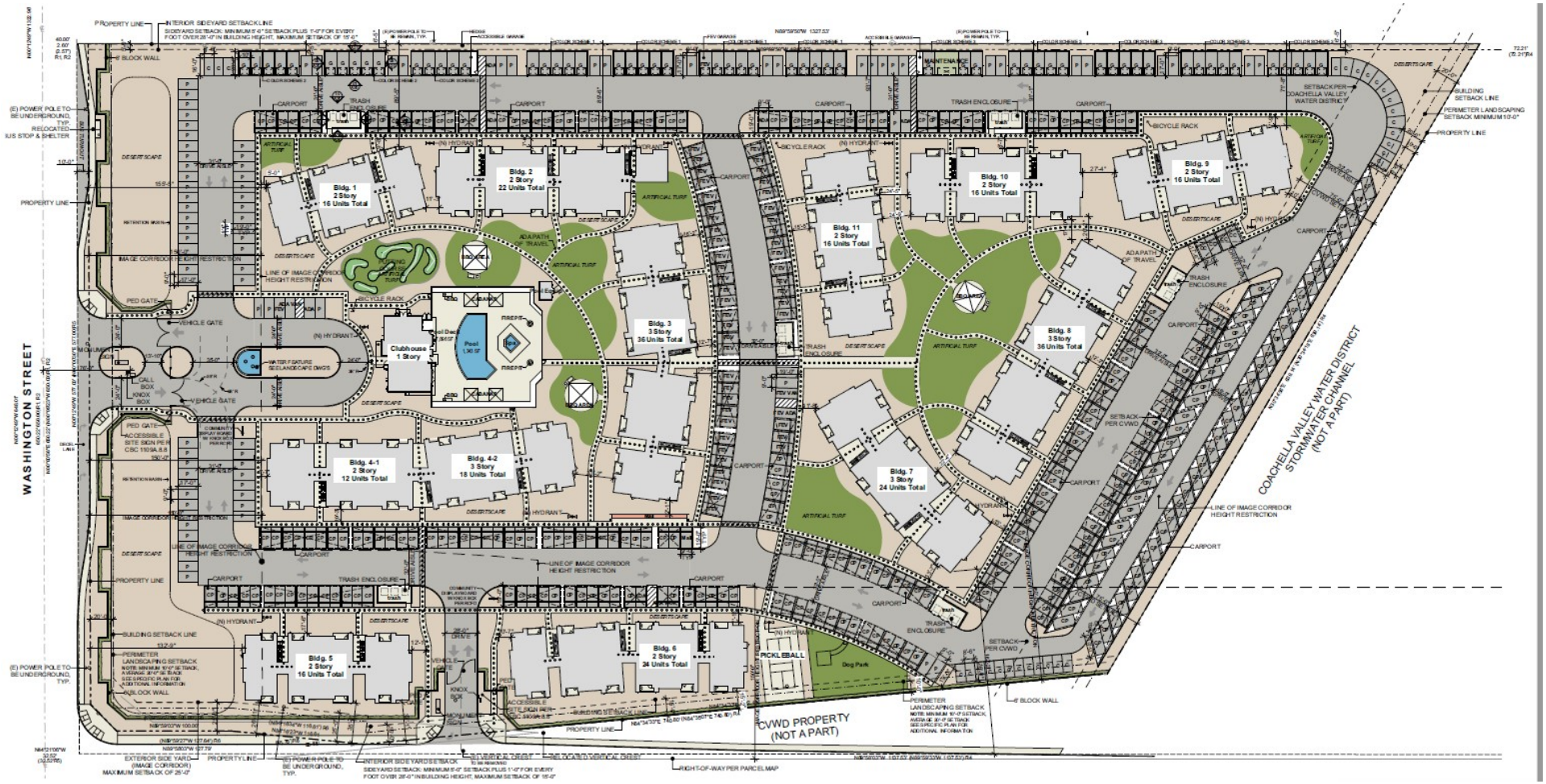
Figures 1-1 through 1-4 show project site plan, study area, trip distribution/assignment and intersection turning movement volumes.

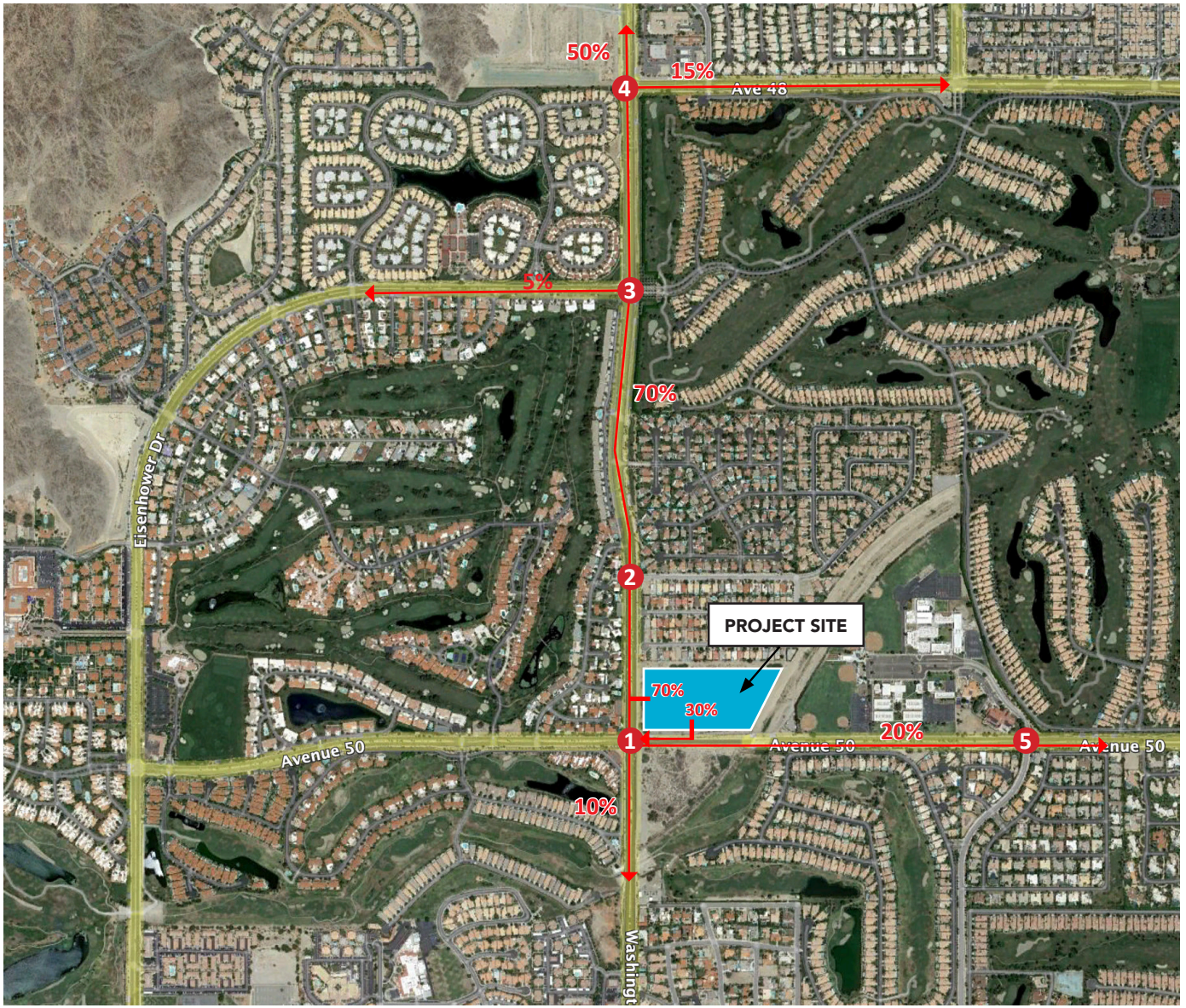
PROJECT ACCESS

Access to the project site will be provided via two driveways along Washington Street and Avenue 50, respectively.

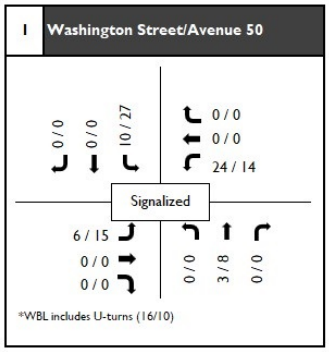
PARKING

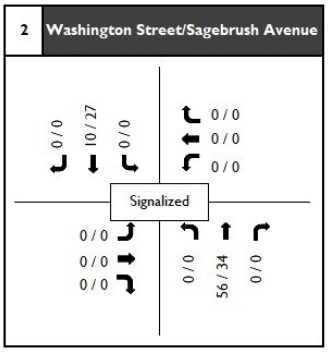
The proposed development will be required to provide on-site parking spaces consistent with City of La Quinta parking requirements.

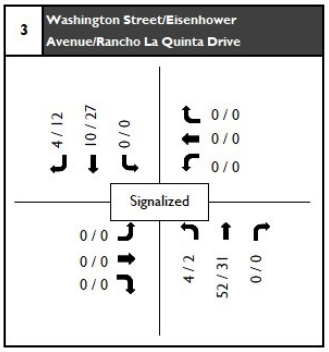

WASHINGTON STREET
Bldg. 1
2 Story
16 Units Total
Bldg. 2
2 Story
22 Units Total
Bldg. 3
3 Story
36 Units Total
Bldg. 4-1
2 Story
12 Units Total
Bldg. 4-2
3 Story
18 Units Total
Bldg. 5
2 Story
16 Units Total
Bldg. 6
2 Story
24 Units Total
Bldg. 7
3 Story
24 Units Total
Bldg. 8
3 Story
36 Units Total
Bldg. 9
2 Story
16 Units Total
Bldg. 10
2 Story
16 Units Total
Bldg. 11
2 Story
16 Units Total
Clubhouse
1 Story
Pool
1,365 SF
PICKLEBALL
Dog Park
COACHELLA VALLEY WATER DISTRICT
STORMWATER CHANNEL
(NOT A PART)
CVWD PROPERTY
(NOT A PART)
PROPERTY LINE
INTERIOR SIDEYARD SETBACK LINE
LINE OF IMAGE CORRIDOR HEIGHT RESTRICTION
BUILDING SETBACK LINE
PERIMETER LANDSCAPING SETBACK
TRASH ENCLOSURE
CARPORT
(N) HYDRANT
VEHICLE GATE
PED GATE
6' BLOCK WALL

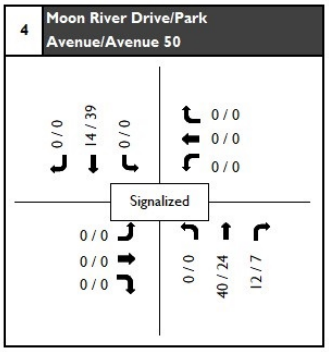


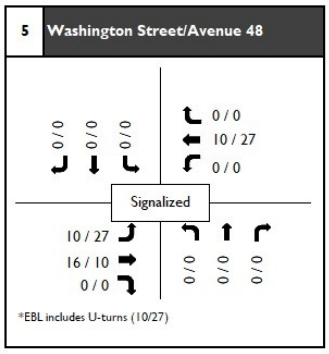
LEGEND # Intersection











Roadway Segment	Project
Total ADT	1556
Washington Street	
North of Avenue 50	1,089
South of Avenue 50	156
Avenue 50	
West of Washington Street	195
East of Washington Street	778

LEGEND
(AM/PM) Peak Hour Volumes

2.0 METHODOLOGIES

This section documents the methodologies and assumptions used to conduct the circulation impact analysis for the proposed project. This section contains the following background information:

- Study scenarios
- Study time periods
- Analysis methodologies

Refer to **Appendix A** for approved scoping agreement.

STUDY SCENARIOS

This report presents an analysis of the intersections which were selected for the following anticipated timeframe scenarios:

- Existing Conditions (2023)
- Project Completion Year 2025 (Existing Plus Ambient Plus Project) Conditions
- Cumulative Year 2025 (Existing Plus Ambient Plus Cumulative Plus Project) Conditions

STUDY TIME PERIODS

The City of La Quinta selected the following peak hours for analysis:

- Weekday AM (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM (peak hour between 4:00 PM and 6:00 PM)

ANALYSIS METHODOLOGIES

Street system operating conditions are typically described in terms of "level of service." Level of service is a report-card scale used to indicate the quality of traffic flow on roadway segments and at intersections. Level of service (LOS) ranges from LOS A (free flow, little congestion) to LOS F (forced flow, extreme congestion). **Table 2-1** describes generalized definitions of auto LOS A through F.

Table 2-1
Vehicular Level of Service Definitions

LOS	Characteristics
A	Primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Controlled delay at the boundary intersections is minimal. The travel speed exceeds 80% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
B	Reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted and control delay at the boundary intersections is not significant. The travel speed is between 67% and 80% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
C	Stable operation. The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at the boundary intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
D	Less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the boundary intersections. The travel speed is between 40% and 50% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
E	Unstable operation and significant delay. Such operations may be due to some combination of adverse signal progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30% and 40% of the base free-flow speed, and the volume-to-capacity ratio is no greater than 1.0.
F	Flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed, or the volume-to-capacity ratio is greater than 1.0.

Source: Highway Capacity Manual 6th Edition, Transportation Research Board (2016)

Intersection Capacity Analysis

The analysis of peak hour intersection performance was conducted using the Synchro 11 software program, which uses methodologies defined in the Highway Capacity Manual (HCM) 6th Edition to calculate LOS. Level of service (LOS) for intersections is determined by control delay. Control delay is defined as the total elapsed time from when a vehicle stops at the end of a queue to the time the vehicle departs from the stop line. The total elapsed time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in the queue.

Signalized Intersections

The HCM analysis methodology for evaluating signalized intersections is based on the "operational analysis" procedure. This technique uses 1,900 passenger cars per hour of green per lane (pcphpl) as the maximum saturation flow of a single lane at an intersection. A factor of 1/1.18 is applied to determine the saturation flow for exclusive right turn lanes (1900/1.18 = 1610 pcphpl) and a factor of 1/1.05 is applied for the saturation flow of exclusive left turns (1900/1.05 = 1810 pcphpl). Average control delay is calculated by taking a volume-weighted average of all the delays for all vehicles entering the intersection. However, HCM6 delay calculation within Synchro 11 does not calculate delay for U-turn volume inputs. Therefore, U-turn volumes are input as left-turns and the saturation flow for the respective left turn movements are reduced to 1600 pcphpl to mimic the increased

perception-reaction time and decreased turning speed of U-turn movements. **Table 2-2** summarizes the level of service criteria for signalized intersections.

Table 2-2
Signalized Intersection Level of Service HCM Operational Analysis Method

Average Control Delay Per Vehicle (seconds)	Level of Service (LOS) Characteristics
≤10.0	*LOS A* occurs when the volume-to-capacity ratio is low and either progression is exceptionally favorable, or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
10.1 – 20.0	*LOS B* occurs when the volume-to-capacity ratio is low and either progression is highly favorable, or the cycle length is short. More vehicles stop than with LOS A.
20.1 – 35.0	*LOS C* occurs when progression is favorable, or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
35.1 – 55.0	*LOS D* occurs when the volume-to-capacity ratio is high and either progression is ineffective, or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.
55.1 – 80.0	*LOS E* occurs when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.
>80.0	*LOS F* occurs when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: Highway Capacity Manual, Transportation Research Board (2016)

Roadway Capacity Analysis

Roadway capacities are theoretical for planning purposes and are affected by factors such as intersection spacing, configuration, traffic control, access control, roadway grade, design geometrics, sight distance and vehicle mix. Roadway segment level of service is estimated by comparing the ADT on a roadway segment to the roadway ADT capacity. The 2035 La Quinta General Plan provides roadway segment volume capacities based on street classifications. **Table 2-3** shows these ADT thresholds.

Table 2-3
La Quinta General Plan Roadway Segment ADT Thresholds

Classification	Roadway Classification	ADT Capacity (Vehicles per day)				
		LOS A	LOS B	LOS C	LOS D	LOS E
Primary	3-Lane Divided[1]	19,170	22,365	25,560	28,755	31,950
Primary	4-Lane Divided	25,560	29,800	34,080	38,340	42,600
Major	6-Lane Divided	36,600	42,700	48,800	54,900	61,000

Source: 2035 La Quinta General Plan Table II-8, November 2013

[1]*Assumed capacity by multiplying thresholds for 4-Lane Primary classification by 3/4*

City of La Quinta General Plan Compliance

In coordination with City staff, the transportation analysis will identify LOS deficiencies for compliance with City of La Quinta General Plan goals. The City of La Quinta has established LOS "D" as the minimum allowable level of service at signalized intersections and LOS "E" as the minimum allowable

LOS for the side street at cross-street stop-controlled intersections. Therefore, any intersection operating at an LOS worse than these minimums will be considered deficient for the purposes of this analysis.

3.0 EXISTING CONDITIONS (2023) SCENARIO

This section documents the circulation system conditions within the study area of the project under Existing Conditions Year 2023. This section also documents operational deficiencies on the existing local and regional circulation networks.

ROADWAY NETWORK

Locally significant roadway located within the study area of the proposed project is discussed below.

Washington Street from Avenue 48 to Avenue 50 functions as a 6-lane major arterial. The posted speed limit on Washington Street is 50 miles per hour (mph). Per the City of La Quinta General Plan Circulation Element, the buildout roadway classification of Washington Street is a divided 6-lane major arterial.

Avenue 50 from Eisenhower Drive to Park Avenue mostly functions as a 3-lane primary arterial along the property frontage and transitions to a 4-lane primary arterial to the east. The posted speed limit on Washington Street is 45 mph. Per the City of La Quinta General Plan Circulation Element, the buildout roadway classification of Avenue 50 is a divided 4-lane primary arterial.

Figures 3-1 and **3-2** show the City of La Quinta General Plan Circulation Network and Recommended Roadway Cross Sections, respectively.

TRANSIT SYSTEM

The SunLine Transit Agency (STA) is the main transit agency servicing the City of La Quinta. Currently, STA operates Route 7 within the vicinity of the project. Route 7 operates seven days a week and connects to Indian Wells and Palm Desert north of the site. Weekday and weekend service frequency is 90 minutes. Bus stops for Route 7 are currently located at the northeast corner of the intersection of Washington Street and Avenue 50 for northbound service and at the southwest corner for southbound service. Pedestrian accessibility and connectivity from the project site to these bus stops is provided along the east and west sides of Washington Street with signalized crossings at the intersection where the bus stops are located. Bus route information is included in **Appendix H**.

ACTIVE TRANSPORTATION SYSTEM

Active transportation facilities including pedestrian and bicycle facilities are provided within the study area of the project. Pedestrian crosswalks are generally provided at signalized intersections along Washington Street with sidewalks on the east side. Buffered Class II bike lanes are provided in both directions along Washington Street and along the southside along Avenue 50, east of the project site.

TRAFFIC VOLUMES

The Existing Year 2023 peak hour intersection turning movement and ADT counts were counted on Thursday March 30, 2023. The turning movement counts are provided in **Appendix B**.

ANALYSIS RESULTS

Tables 3-1 through **3-3** show Existing Conditions intersection operation, intersection queueing, and roadway segment capacity analysis results.

Figure 3-3 shows intersection turning movement counts under Existing Year 2023 scenario.

Table 3-1
Existing Conditions 2023 Scenario Intersection Operation Analysis

Intersection	Intersection Control	Existing Conditions	
		Delay (a)	LOS (b)
AM/PM Peak			
1. Washington Street and Avenue 50	Signalized	22.9/16.3	C/B
2. Washington Street and Sagebrush Avenue	Signalized	5.6/4.4	A/A
3. Washington Street and Eisenhower Drive/Rancho La Quinta Drive	Signalized	16.0/18.8	B/B
4. Washington Street and Avenue 48	Signalized	27.0/12.9	C/B
5. Moon River Drive/Park Avenue and Avenue 50	Signalized	189.4/15.5	**F**/B

Notes:
***Bold** indicates deficient LOS E or F*
(a) Delay refers to the average control delay for the entire intersection, measured in seconds/vehicle.
(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11

Per the analysis results shown in **Table 3-1**, all analyzed intersections are operating at an acceptable LOS under Existing Year 2023 Conditions except for Moon River Drive/Park Avenue and Avenue 50.

Existing Conditions peak hour analysis worksheets are provided in **Appendix C**.

Table 3-2
Existing Conditions 2023 Intersection Queueing Analysis

Intersection	Movement	Stacking Distance (ft)	Queue (ft)		Excess Demand	
			AM	PM	AM	PM
1. Washington Street and Avenue 50	WBL[1]	115	84	71	-	-
5. Moon River Drive/Park Avenue and Avenue 50	EBL	140	280[2]	116	140	-

[1] *Queue values represent higher 95th queue result for the pair of dual left turn pockets at this intersection movement.*
[2] Note that this queue results includes a 72-vehicle queueing penalty and 977 ft of queue in the adjacent EBT lane.

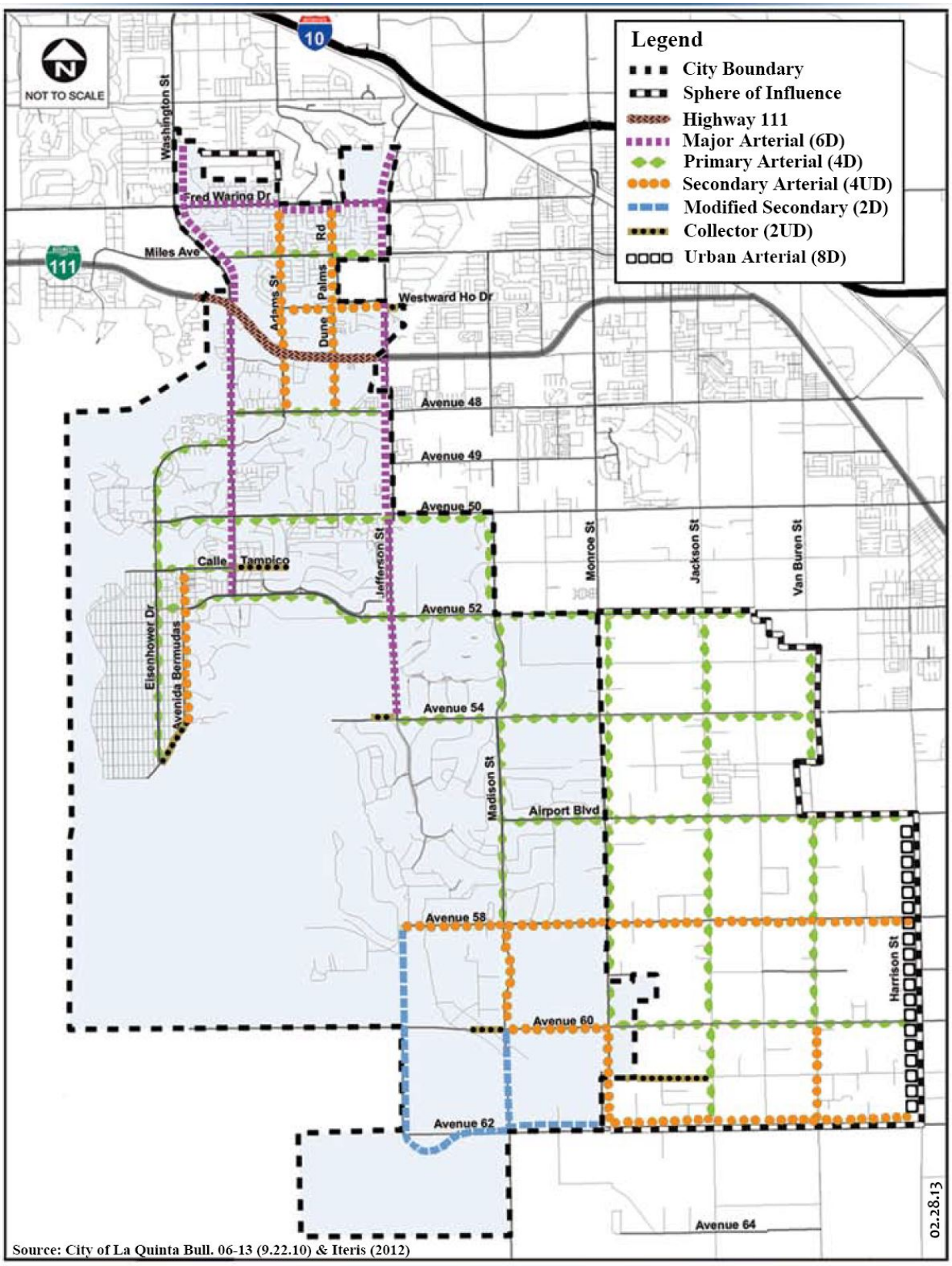
Per the analysis results shown in **Table 3-2**, there is excess queue demand for the eastbound left turn movement at the intersection of Moon River Drive/Park Avenue and Avenue 50 during the AM peak hour under Existing Year 2023 Conditions. Queue analysis worksheets are provided in **Appendix G**.

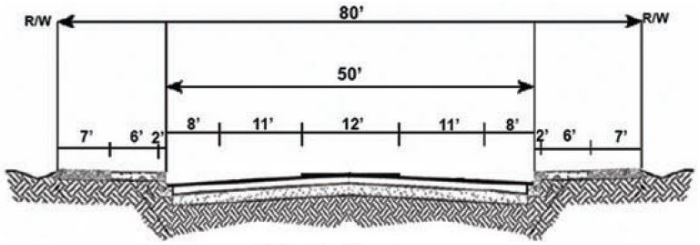
Table 3-3
Existing Year 2023 Roadway Segment Capacity Analysis

Roadway Segment	Classification	LOS E Capacity	Existing Year 2023		
			ADT	v/c ratio	LOS
Washington Street					
North of Avenue 50	6-Lane Major	61,000	31,817	0.522	A
South of Avenue 50	6-Lane Major	61,000	28,890	0.474	A
Avenue 50					
West of Washington Street	4-Lane Primary	42,600	4,313	0.101	A
East of Washington Street	3-Lane Primary[1]	31,950	8,556	0.268	A

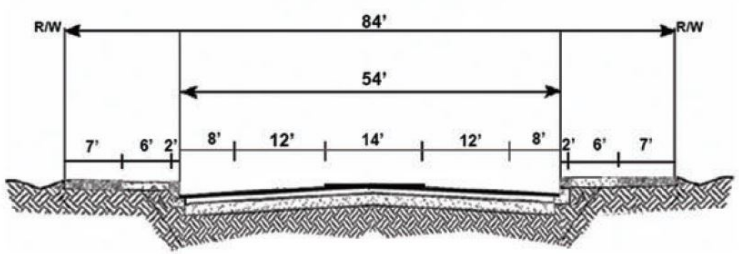
Notes:
[1]Assumed capacity by multiplying thresholds for 4-Lane Divided classification by 3/4

Per the analysis results shown in Table 3-3, all analyzed roadway segments are operating at an acceptable LOS under Existing Conditions.

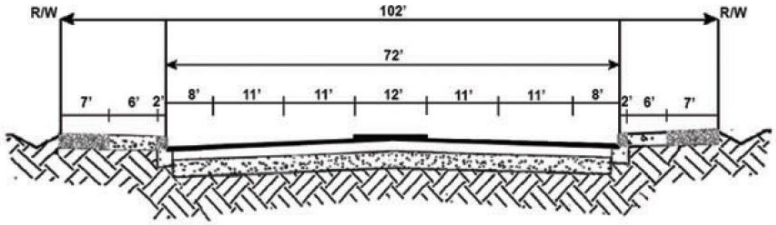

Legend
City Boundary
Sphere of Influence
Highway 111
Major Arterial (6D)
Primary Arterial (4D)
Secondary Arterial (4UD)
Modified Secondary (2D)
Collector (2UD)
Urban Arterial (8D)
NOT TO SCALE
10
111
Washington St
Fred Waring Dr
Miles Ave
Adams St
Palms
Rd
Dune
Westward Ho Dr
Avenue 48
Avenue 49
Avenue 50
Calle Tampico
Jefferson St
Monroe St
Jackson St
Van Buren St
Avenue 52
Eisenhower Dr
Avenida Bermudas
Avenue 54
Madison St
Airport Blvd
Avenue 58
Harrison St
Avenue 60
Avenue 62
Avenue 64
02.28.13
Source: City of La Quinta Bull. 06-13 (9.22.10) & Iteris (2012)



80' Collector



84' Modified Secondary Arterial



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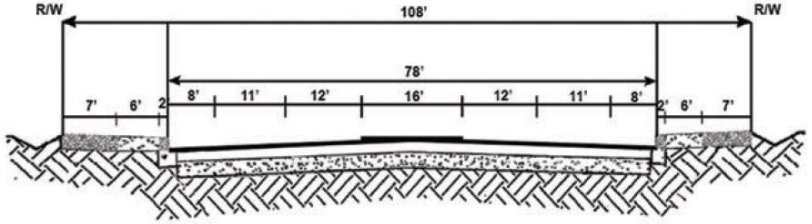

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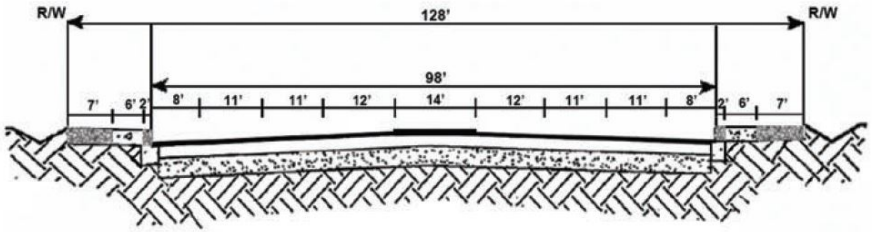

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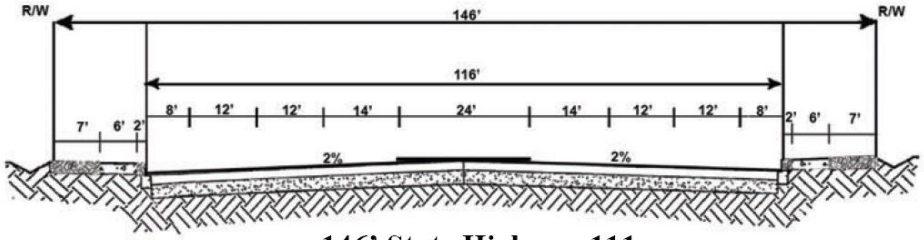

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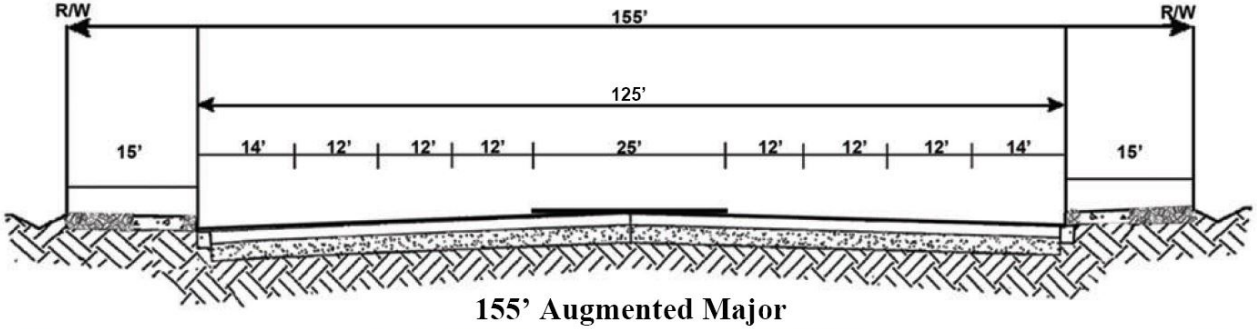

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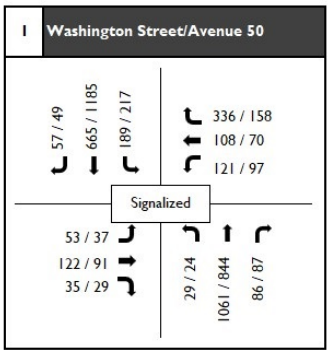
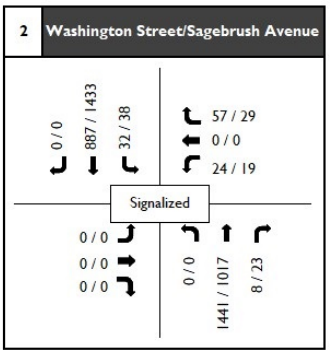
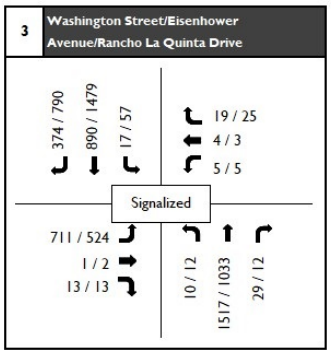
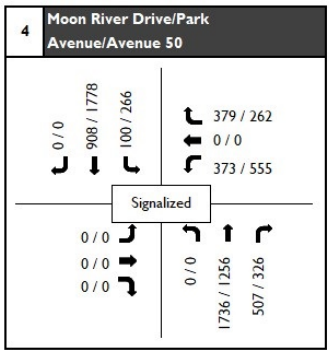
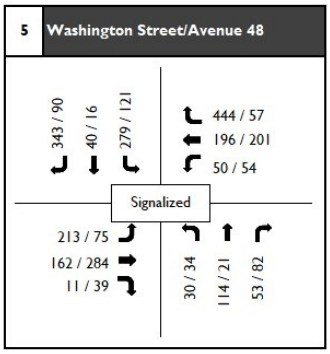










LEGEND
(AM/PM) Peak Hour Volumes

4.0 PROJECT COMPLETION CONDITIONS

This section documents the circulation system conditions within the study area of the project under Project Completion (Existing Plus Ambient Plus Project) Conditions. Since the project is expected to be built and operational in 2025, a 2% annual growth factor for two years was applied to the existing counts. Project traffic volumes are then added to these volumes to develop Project Completion Conditions traffic volumes. This section also documents potential operational deficiencies on the existing local and regional circulation networks.

ANALYSIS RESULTS

Tables 4-1 through **4-3** show Project Completion Conditions intersection operation, intersection queueing, and roadway segment capacity analysis results.

Figures 4-1 shows intersection turning movement volumes under Project Completion Conditions.

Table 4-1
Project Completion Scenario Intersection Operation Analysis

Intersection	Existing Conditions		Project Completion Conditions	
	Delay (a)	LOS (b)	Delay (a)	LOS (b)
AM Peak/PM Peak				
1. Washington Street and Avenue 50	22.9/16.3	C/B	25.1/17.1	C/B
2. Washington Street and Sagebrush Avenue	5.6/4.4	A/A	5.7/4.5	A/A
3. Washington Street and Eisenhower Drive/Rancho La Quinta Drive	16.0/18.8	B/B	17.3/22.4	B/C
4. Washington Street and Avenue 48	27.0/12.9	C/B	29.4/13.8	C/B
5. Moon River Drive/Park Avenue and Avenue 50	189.4/15.5	**F**/B	215.7/16.2	**F**/B

Notes:
***Bold** indicates deficient LOS E or F*
(a) Delay refers to the average control delay for the entire intersection, measured in seconds/vehicle. At unsignalized intersections, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11

Per the analysis results shown in **Table 4-1**, all analyzed intersections are operating at an acceptable LOS under Project Completion Conditions except for Moon River Drive/Park Avenue and Avenue 50. As demonstrated, the deficient operations at this intersection are existing and due to the AM student drop off for Harry S Truman Elementary School. Therefore, no additional improvements are required.

Project Completion Conditions peak hour analysis worksheets are provided in **Appendix D**.

Table 4-2
Project Completion Scenario Intersection Queueing Analysis

Intersection	Movement	Stacking Distance (ft)	Queue (ft)		Excess Demand	
			AM	PM	AM	PM
1. Washington Street and Avenue 50	WBL[1]	115	94	81	-	-
5. Moon River Drive/Park Avenue and Avenue 50	EBL	140	254[2]	101	114	-

[1] Queue values represent higher 95th queue result for the pair of dual left turn pockets at this intersection movement.
[2] Note that although this queue result decreases from an existing queue of 280 ft, the queueing penalty increases to 98 vehicles and the adjacent EBT lane queue increases to 1489 ft.

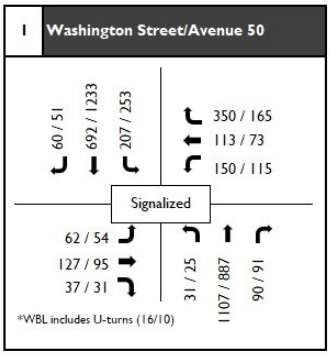
Per the analysis results shown in Table 4-2, excess queue demand is anticipated for the eastbound left turn movement at the intersection of Moon River Drive/Park Avenue and Avenue 50 during the AM peak hour under Project Completion Conditions. However, the excess queue at this intersection movement is existing and due to the AM student drop off for Harry S Truman Elementary School. Therefore, no additional improvements are required. Queue analysis worksheets are provided in **Appendix G**.

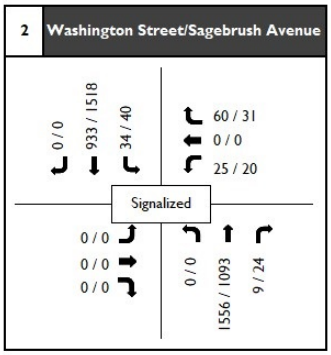
Table 4-3
Project Completion Scenario Roadway Segment Capacity Analysis

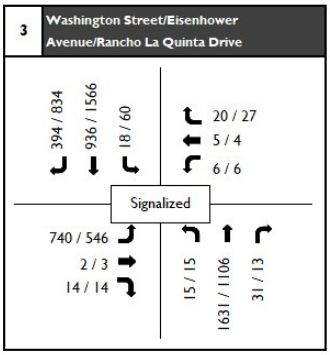
Roadway Segment	Classification	LOS E Capacity	Existing Year 2023		
			ADT	v/c ratio	LOS
Washington Street					
North of Avenue 50	6-Lane Major	61,000	34,191	0.561	A
South of Avenue 50	6-Lane Major	61,000	30,213	0.495	A
Avenue 50					
West of Washington Street	4-Lane Primary	42,600	4,682	0.101	A
East of Washington Street	3-Lane Primary[1]	31,950	9,680	0.268	A

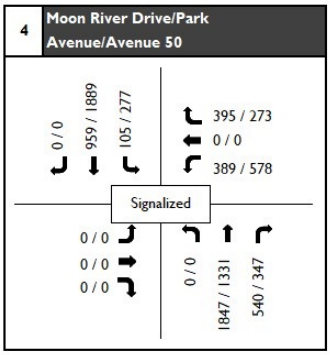
Notes:
[1]Assumed capacity by multiplying thresholds for 4-Lane Divided classification by 3/4

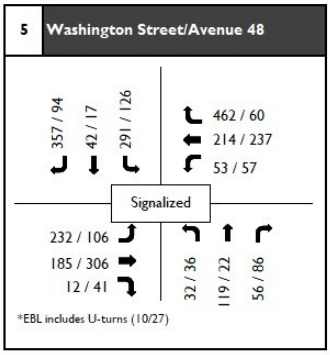
Per the analysis results shown in Table 4-3, all analyzed roadway segments are operating at an acceptable LOS under Project Completion Conditions.











LEGEND
(AM/PM) Peak Hour Volumes

5.0 CUMULATIVE CONDITIONS

This section documents the circulation system conditions within the study area of the Project under Cumulative (Existing Plus Ambient Plus Cumulative Plus Project) Conditions. The Cumulative Conditions traffic volumes were developed by adding cumulative project trips to the Project Completion Conditions traffic volumes. This cumulative project is shown in **Table 5-1** below. The location is shown in **Figure 5-1** and the Cumulative project trip volumes assigned to the study intersections are shown in **Figure 5-2**. This section also documents potential Cumulative Project operational deficiencies on the circulation network. No network improvements are assumed under Cumulative conditions.

Table 5-1
Cumulative Projects

Project	Land Use	Quantity	Units[1]
Crossing at La Quinta	Residential	68	DU

[1]DU = Dwelling Units

ANALYSIS RESULTS

Tables 5-2 through **5-4** show Cumulative Conditions intersection operation, intersection queue, and roadway segment analysis results.

Figures 5-1 and **5-2** show intersection turning movement and roadway segment volumes for the cumulative project in Table 5-1 and under Cumulative Conditions, respectively. Trip distribution for this Cumulative project is included in **Appendix E**.

Table 5-2
Cumulative Condition Intersection Operation Analysis

Intersection	Existing Conditions		Cumulative Conditions	
	Delay (a)	LOS (b)	Delay (a)	LOS (b)
1. Washington Street and Avenue 50	22.9/16.3	C/B	25.4/17.2	C/B
2. Washington Street and Sagebrush Avenue	5.6/4.4	A/A	5.7/4.4	A/A
3. Washington Street and Eisenhower Drive/Rancho La Quinta Drive	16.0/18.8	B/B	17.5/22.5	B/C
4. Washington Street and Avenue 48	27.0/12.9	C/B	29.7/13.9	C/B
5. Moon River Drive/Park Avenue and Avenue 50	189.4/15.5	**F**/B	215.5/16.2	**F**/B

Notes:
***Bold** indicates deficient LOS E or F*
(a) Delay refers to the average control delay for the entire intersection, measured in seconds/vehicle. At unsignalized intersection, delay refers to the worst movement.
(b) LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11

Per the analysis results shown in **Table 5-2**, all analyzed intersections are operating at an acceptable LOS under Cumulative Conditions except for Moon River Drive/Park Avenue and Avenue 50. As demonstrated, the deficient operations at this intersection are existing and due to the AM student drop off for Harry S Truman Elementary School. Therefore, no additional improvements are required.

Cumulative Condition peak hour analysis worksheets are provided in **Appendix F**.

Table 5-3
Cumulative Scenario Intersection Queueing Analysis

Intersection	Movement	Stacking Distance (ft)	Queue (ft)		Excess Demand	
			AM	PM	AM	PM
1. Washington Street and Avenue 50	WBL[1]	115	97	79	-	-
5. Moon River Drive/Park Avenue and Avenue 50	EBL	140	262[2]	99	122	-

[1] Queue values represent higher 95th queue result for the pair of dual left turn pockets at this intersection movement.
[2] Note that although this queue result decreases from an existing queue of 280 ft, the queueing penalty increases to 100 vehicles and the adjacent EBT lane queue increases to 1491 ft.

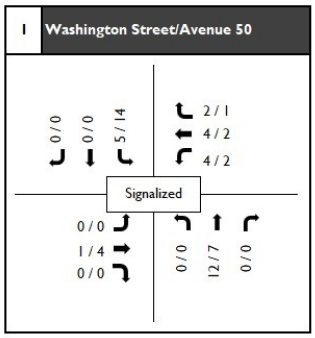
Per the analysis results shown in Table 5-3, excess queue demand is anticipated for the eastbound left turn movement at the intersection of Moon River Drive/Park Avenue and Avenue 50 during the AM peak hour under Cumulative Conditions. However, the excess queue at this intersection movement is existing and due to the AM student drop off for Harry S Truman Elementary School. Therefore, no additional improvements are required. Queue analysis worksheets are provided in **Appendix G**.

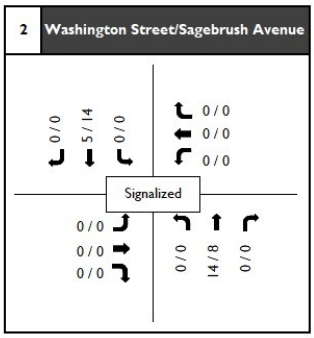
Table 5-4
Cumulative Scenario Roadway Segment Capacity Analysis

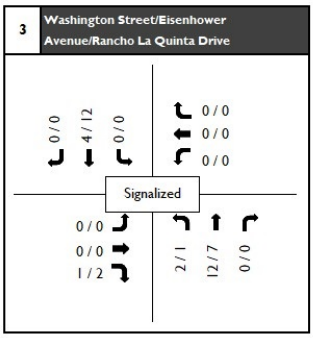
Roadway Segment	Classification	LOS E Capacity	Existing Year 2023		
			ADT	v/c ratio	LOS
Washington Street					
North of Avenue 50	6-Lane Major	61,000	34,490	0.565	A
South of Avenue 50	6-Lane Major	61,000	30,288	0.497	A
Avenue 50					
West of Washington Street	4-Lane Primary	42,600	4,757	0.112	A
East of Washington Street	3-Lane Primary[1]	31,950	9,929	0.311	A

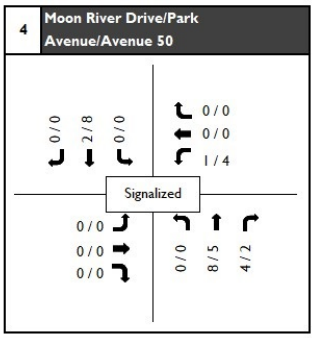
Notes:
[1]Assumed capacity by multiplying thresholds for 4-Lane Divided classification by 3/4

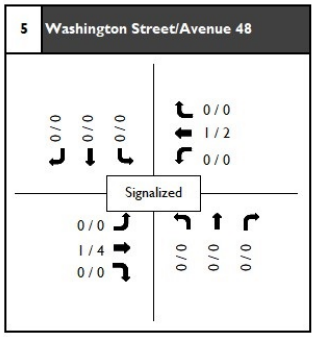
Per the analysis results shown in Table 5-4, all analyzed roadway segments are operating at an acceptable LOS under Cumulative Conditions.



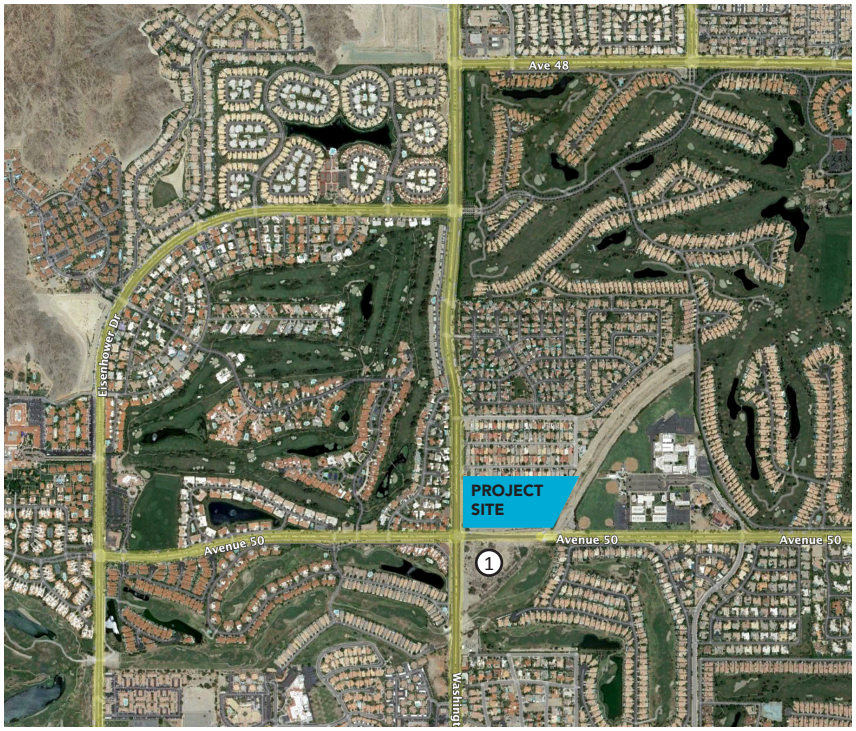




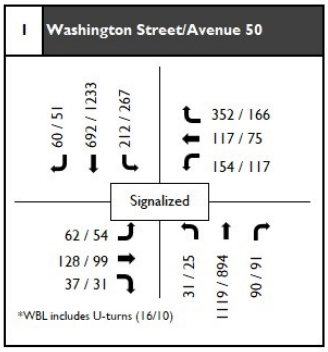


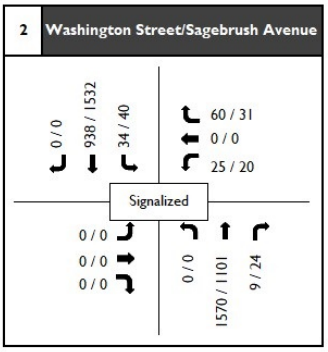


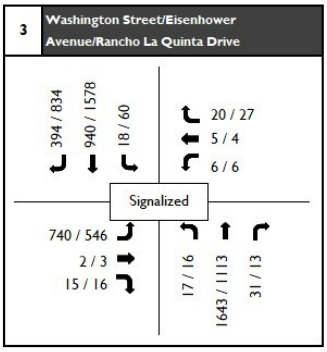
Roadway Segment	Cumulative
Total ADT	**498**
Washington Street	
North of Avenue 50	299
South of Avenue 50	75
Avenue 50	
West of Washington Street	75
East of Washington Street	249

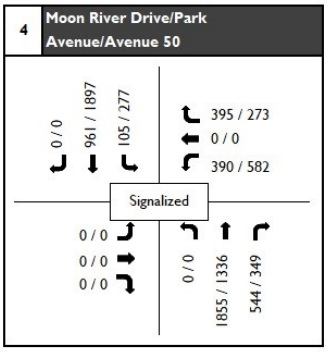


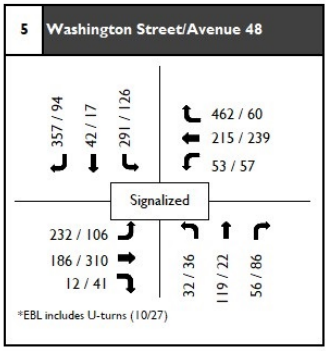
① Crossing at La Quinta











LEGEND
(AM/PM) Peak Hour Volumes

6.0 VEHICLE MILES TRAVELED

This section documents the results of the Project Screening assessment per the City of La Quinta Vehicle Miles Traveled (VMT) Analysis Policy (June 2021).

The VMT Policy provides project screening criteria to determine if a VMT analysis is necessary. A presumption can be made that a project would not have a significant transportation related CEQA impact if a project meets one of project-level assessment screening criteria identified in the City's VMT Analysis Policy.

Per the City of La Quinta VMT Analysis Policy and screening criteria for Development Projects, the proposed project consisting of a combination of 178 multifamily (low-rise) units and 74 affordable housing units can be presumed to not have a significant transportation related CEQA impact by qualifying for multi-family (low-rise) housing projects less than or equal to 200 dwelling units as Small Project and local serving projects screening criteria as affordable housing. A detailed VMT analysis is included in **Appendix I**.

APPENDIX A -

SCOPING AGREEMENT

INTEGRATED ENGINEERING GROUP
TRANSPORTATION PLANNING AND ENGINEERING

Date: October 26, 2021

To: Bryan McKinney, Public Works/Engineering Director, City Engineer, City of La Quinta

From: George Ghossain, Principal Engineer, Integrated Engineering Group

Subject: TRIP GENERATION AND VMT SCOPING AGREEMENT FOR WASHINGTON STREET AND AVENUE 50 MULTI-FAMILY DEVELOPMENT, LA QUINTA

Integrated Engineering Group (IEG) is pleased to submit this scoping agreement for the Washington Street and Avenue 50 Multi-Family Development located on the northeast corner of Washington Street and Avenue 50 in the City of La Quinta, California. The subject project is proposing the construction of 10 residential buildings including 221 multifamily (low-rise) units and 1 clubhouse with amenities on a vacant site.

Our goal is to obtain comments from City of La Quinta staff, to ensure that this memo fully addresses the analysis requirements per the City of La Quinta General Plan and County of Riverside Transportation Analysis (TA) Guidelines for Level of Service (LOS) and Vehicle Miles Traveled (VMT), December 2020.

The preliminary site plan for the proposed Project is shown on **Figure 1**. It is anticipated that the proposed development will be built in one phase which will be discussed in detail with City staff. Access to the Project site will be provided via one full access driveway along Avenue 50 and one right in/right out only driveway along Washington Street.

STUDY AREA

The study area for this project was developed consistent with the County of Riverside TA guidelines in coordination with City staff. **Figure 2** presents the study area that includes the following three key intersections:

Intersections

1. Washington Street and Avenue 50
2. Washington Street and Eisenhower Drive/Rancho La Quinta Drive
3. Washington Street and Avenue 48

ANALYSIS SCENARIOS

Analysis of the intersection operating conditions during the peak periods will be conducted for the following anticipated timeframe scenarios:

- Existing Year 2021
- Project Completion (Existing plus Ambient Growth plus Project)

- Cumulative (Existing plus Ambient Growth plus Project plus Cumulative Projects)

TRIP GENERATION

Trip generation is a measure or forecast of the number of trips that begin or end at the project site. The traffic generated is a function of the extent and type of development proposed for the site. These trips will result in some traffic increases on the streets where they occur. Per Appendix B in the County of Riverside TA Guidelines, trip generation rates from the *Trip Generation Manual, 10th Edition*, published by the Institute of Transportation Engineers (ITE) should be used to determine trip generation.

The proposed Project trip generation rates and trip calculations summary are presented in **Tables 1** and **2**, respectively.

Table 1
Project Trip Generation Rate

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Multifamily Housing (Low Rise)	DU	220	0.11	0.35	0.46	0.35	0.21	0.56	7.32

[1]Trip Generation Rate Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).
[2]DU = Dwelling Unit

Table 2
Project Trip Generation

Land Use	Intensity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Multifamily Housing (Low Rise)	221	DU	23	78	101	78	46	124	1,618
		Total	***23***	***78***	***101***	***78***	***46***	***124***	***1,618***

[1]DU = Dwelling Unit

Table 2 summarizes the trip generation based on the dwelling units associated with the proposed Project. As shown, the proposed project is estimated to generate approximately 1,618 total daily trips, 101 AM peak hour trips and 124 PM peak hour trips.

TRIP DISTRIBUTION/ASSIGNMENT

Trip distribution and assignment is the process of identifying the probable destinations, directions and traffic routes that project related traffic will likely affect. Trip distribution and assignment information can be estimated from observed traffic patterns, experience or through use of the Riverside County Transportation Analysis Model (RivCOM). Once the proposed development trips have been estimated, they are assigned to the study area network. For this development, the project distribution was developed based on the land use characteristics of the proposed project and surrounding area, anticipated travel patterns to and from the project site and existing travel patterns within the study area. **Figures 2** and **3** show project trips distribution percentages and assignment.

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TRANSPORTATION PLANNING AND ENGINEERING

EXISTING AND PROJECTED TRAFFIC VOLUMES

Intersection turning movement and roadway segment average daily traffic counts will be conducted during the weekday morning peak period from 7:00 AM to 9:00 AM and weekday evening peak period from 4:00 PM to 6:00 PM. Opening Year 2023 volumes will be developed by applying two percent per year growth factor over the Existing Year 2021 volumes.

IMPROVEMENT TO ADDRESS LOS DEFICIENCIES

For the purposes of this analysis, LOS D is the minimum LOS standard for intersection analysis is LOS D and improvements should be identified to address intersection deficiencies caused by the project.

VEHICLE MILES TRAVELED (VMT)

The City of La Quinta does provide guidance on evaluating VMT for transportation impacts under CEQA. IEG will conduct a VMT assessment per City's revised VMT Guidelines dated June 2021 and submit for City staff review and approval.

Sincerely,
IEG

George Ghossain, PE, MSCE, MPA
Principal Engineer

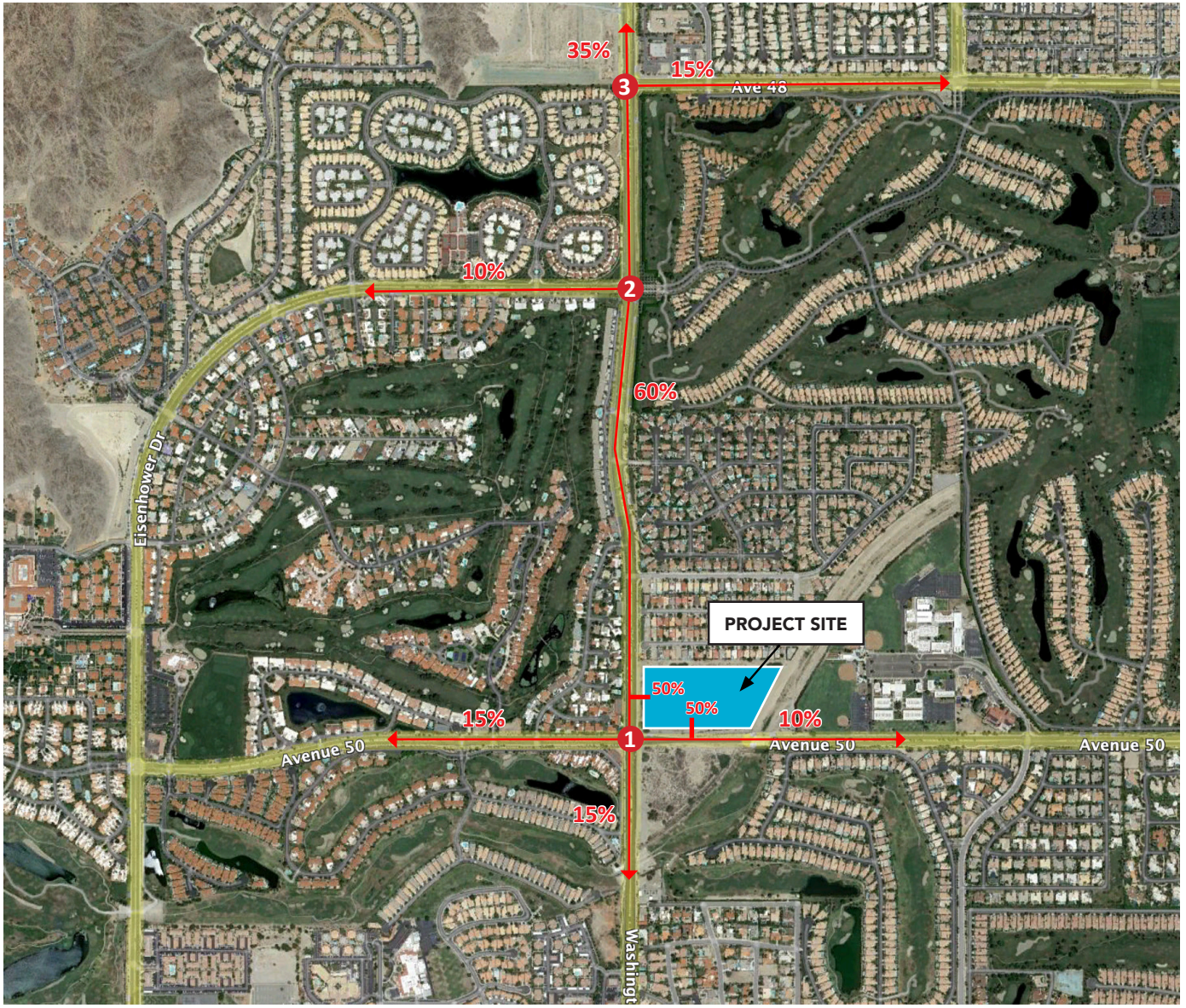
Approved By:

Signature:
Name: _____
Address: _____
_____
_____

Attachments: Figure 1 – Project Site Plan
Figure 2 – Study Area Trip Distribution
Figure 3 – Trip Assignment

INTEGRATED ENGINEERING GROUP
TRANSPORTATION PLANNING AND ENGINEERING

Washington Street & Avenue 50 Multi-Family Development
Project Site Plan
Figure 1



LEGEND # Intersection

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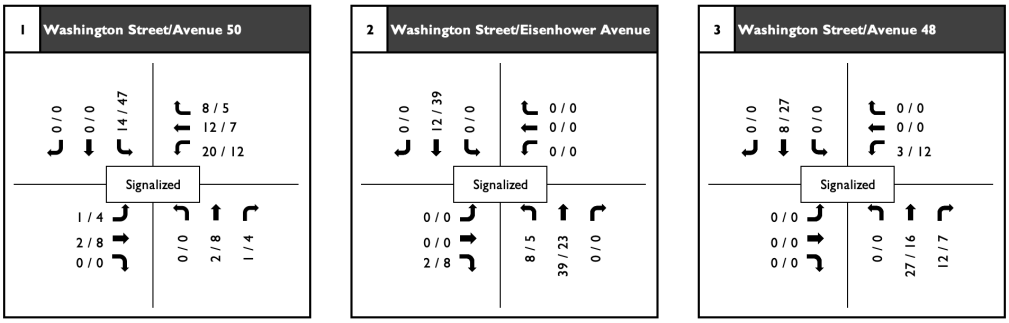
Washington Street & Avenue 50 Multi-Family Development
Project Study Area and Trip Distribution
Figure 2



LEGEND
(AM/PM) Peak Hour Volumes

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Washington Street & Avenue 50 Multi-Family Development Project Peak Hour Intersection Volumes
Figure 3

APPENDIX B -

TRAFFIC COUNT DATA

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Mar 30, 23

LOCATION: La Quinta
NORTH & SOUTH: Washington
EAST & WEST: Avenue 50

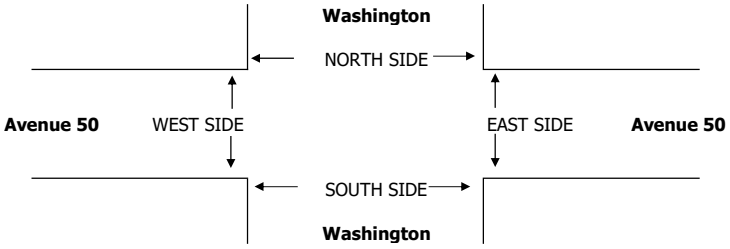
PROJECT #: SC3921
LOCATION #: 1
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Washington			SOUTHBOUND Washington			EASTBOUND Avenue 50			WESTBOUND Avenue 50				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 2	ST 2.5	SR 0.5	EL 1	ET 2	ER 0	WL 2	WT 1	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	6	172	4	28	111	14	10	10	3	5	11	12	386	0	0	0	0	0
	7:15 AM	6	232	13	20	113	10	13	15	1	8	14	38	483	0	0	0	0	0
	7:30 AM	4	271	24	70	140	12	8	27	6	19	19	75	675	0	0	0	0	0
	7:45 AM	9	267	22	43	183	17	10	35	7	40	32	104	769	0	0	0	0	0
	8:00 AM	8	286	23	40	176	12	9	40	9	43	27	89	762	0	0	0	0	0
	8:15 AM	8	237	17	36	166	16	26	20	13	19	30	68	656	1	0	0	0	1
	8:30 AM	9	212	12	27	201	3	16	22	7	24	17	55	605	0	0	0	0	0
	8:45 AM	7	222	13	23	168	13	14	19	6	26	26	49	586	0	0	0	0	0
	VOLUMES	57	1,899	128	287	1,258	97	106	188	52	184	176	490	4,922	1	0	0	0	1
	APPROACH %	3%	91%	6%	17%	77%	6%	31%	54%	15%	22%	21%	58%						
	APP/DEPART	2,084	/	2,495	1,642	/	1,495	346	/	603	850	/	329	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	29	1,061	86	189	665	57	53	122	35	121	108	336	2,862					
	APPROACH %	2%	90%	7%	21%	73%	6%	25%	58%	17%	21%	19%	59%						
	PEAK HR FACTOR		0.927			0.937			0.890			0.803		0.930					
	APP/DEPART	1,176	/	1,450	911	/	822	210	/	397	565	/	193	0					
PM	4:00 PM	5	216	21	62	282	18	10	25	7	22	18	36	722	0	0	0	0	0
	4:15 PM	6	198	29	64	292	8	7	22	9	25	19	40	719	0	0	0	0	0
	4:30 PM	5	225	18	44	291	14	9	17	6	19	21	43	712	0	0	0	0	0
	4:45 PM	8	205	19	47	320	9	11	27	7	31	12	39	735	0	0	0	0	0
	5:00 PM	9	217	20	62	258	12	12	18	7	15	9	27	666	0	0	0	0	0
	5:15 PM	7	204	17	49	320	17	7	21	9	32	17	29	729	0	0	0	0	0
	5:30 PM	6	190	19	43	276	14	10	17	10	38	19	28	670	0	0	0	0	0
	5:45 PM	4	188	15	31	273	12	8	13	12	20	13	32	621	0	0	0	0	0
	VOLUMES	50	1,643	158	402	2,312	104	74	160	67	202	128	274	5,574	0	0	0	0	0
	APPROACH %	3%	89%	9%	14%	82%	4%	25%	53%	22%	33%	21%	45%						
	APP/DEPART	1,851	/	1,991	2,818	/	2,581	301	/	720	604	/	282	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	24	844	87	217	1,185	49	37	91	29	97	70	158	2,888					
	APPROACH %	3%	88%	9%	15%	82%	3%	24%	58%	18%	30%	22%	49%						
	PEAK HR FACTOR		0.963			0.965			0.872			0.967		0.982					
	APP/DEPART	955	/	1,039	1,451	/	1,311	157	/	395	325	/	143	0					



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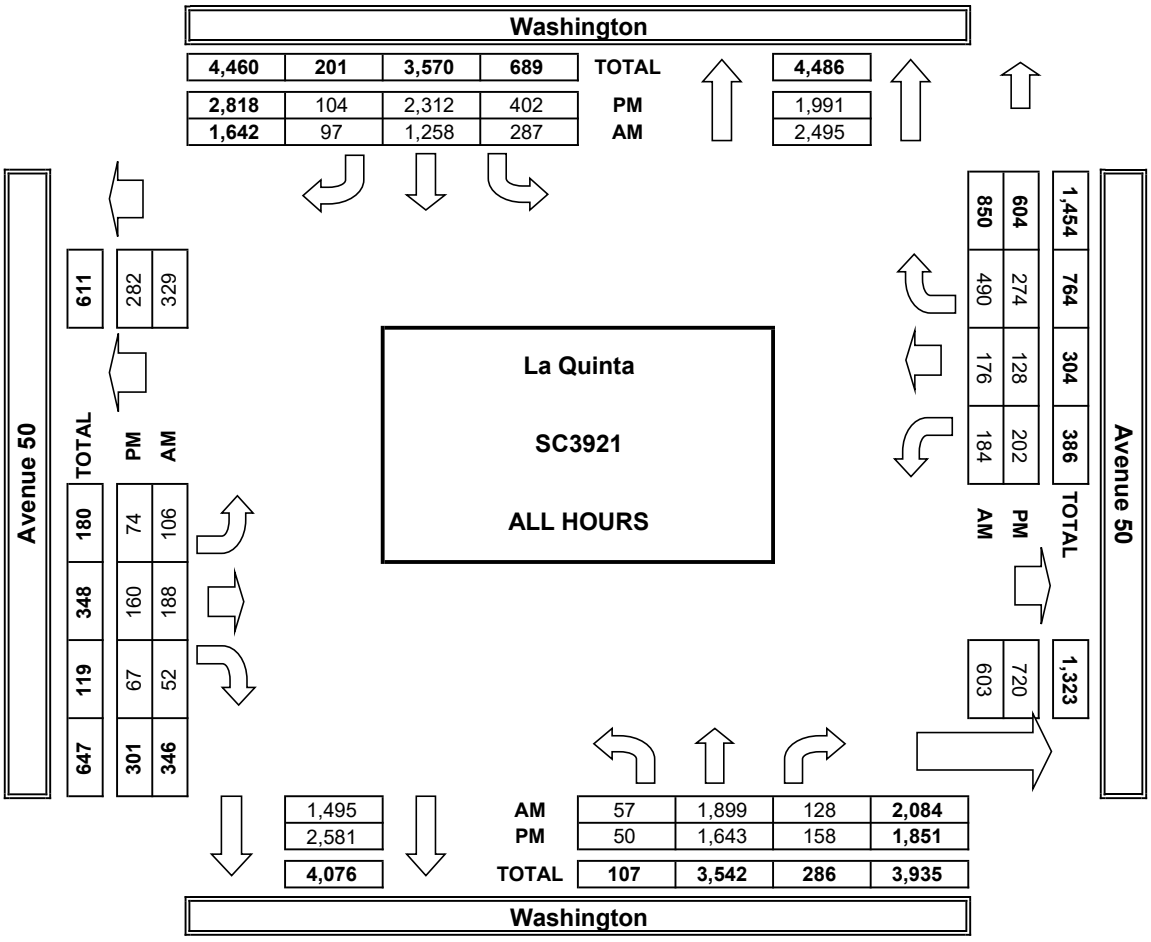
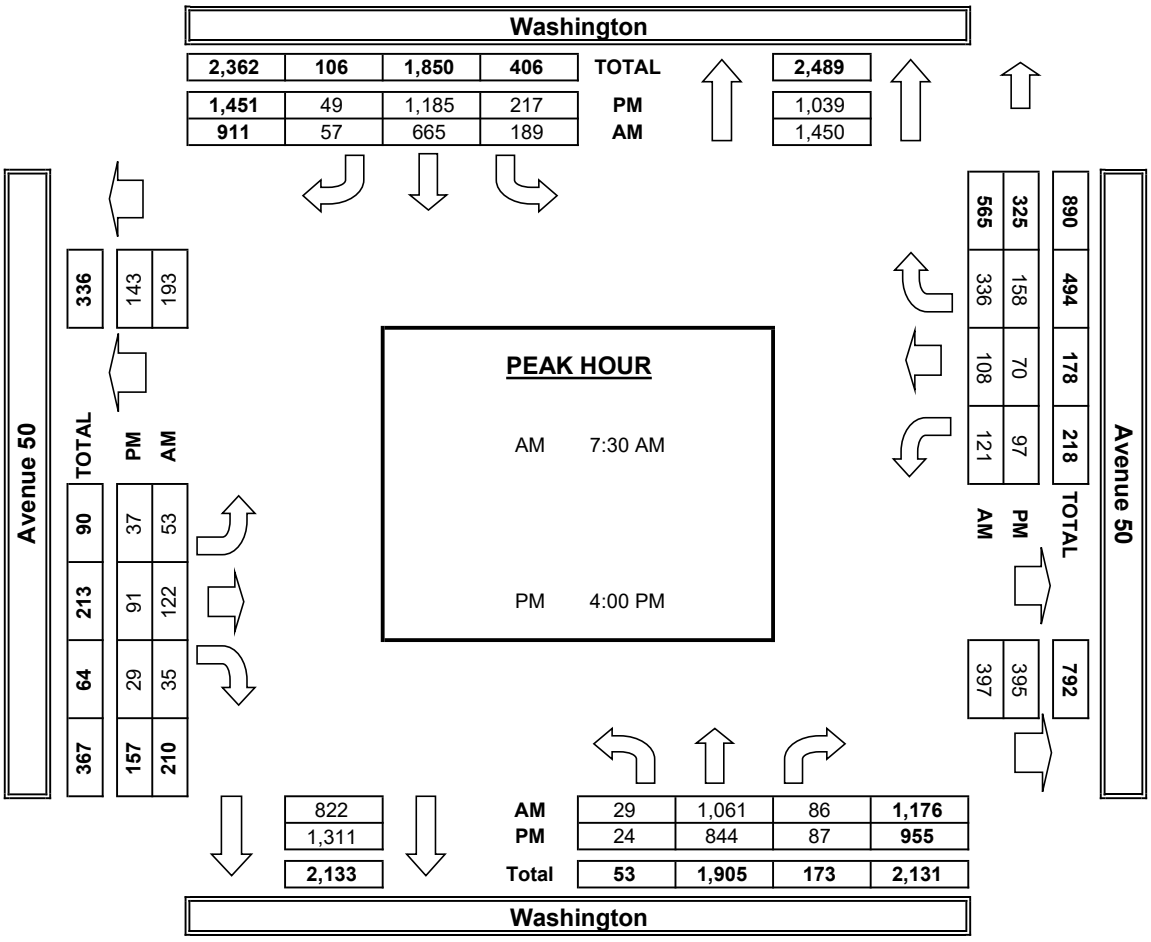
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Mar 30, 23

LOCATION: La Quinta
NORTH & SOUTH: Washington
EAST & WEST: Sagebrush

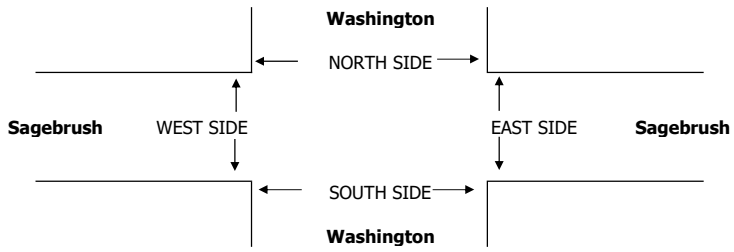
PROJECT #: SC3921
LOCATION #: 2
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Washington			SOUTHBOUND Washington			EASTBOUND Sagebrush			WESTBOUND Sagebrush				U-TURNS				
	LANES:	NL X	NT 2.5	NR 0.5	SL 1	ST 3	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	196	0	2	138	0	0	0	0	2	0	6	344	0	0	0	0	0
	7:15 AM	0	280	2	5	160	0	0	0	0	2	0	6	455	0	1	0	0	1
	7:30 AM	0	351	1	6	198	0	0	0	0	7	0	18	581	0	2	0	0	2
	7:45 AM	0	377	2	4	244	0	0	0	0	6	0	8	641	0	0	0	0	0
	8:00 AM	0	381	1	10	229	0	0	0	0	7	0	15	643	0	3	0	0	3
	8:15 AM	0	332	4	12	216	0	0	0	0	4	0	16	584	0	0	0	0	0
	8:30 AM	0	282	4	7	224	0	0	0	0	3	0	8	528	0	0	0	0	0
	8:45 AM	0	276	3	5	203	0	0	0	0	4	0	8	499	0	3	0	0	3
	VOLUMES	0	2,475	17	51	1,612	0	0	0	0	35	0	85	4,275	0	9	0	0	9
	APPROACH %	0%	99%	1%	3%	97%	0%	0%	0%	0%	29%	0%	71%						
	APP/DEPART	2,492	/	2,569	1,663	/	1,647	0	/	59	120	/	0	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	1,441	8	32	887	0	0	0	0	24	0	57	2,449					
	APPROACH %	0%	99%	1%	3%	97%	0%	0%	0%	0%	30%	0%	70%						
	PEAK HR FACTOR		0.948			0.926			0.000			0.810		0.952					
	APP/DEPART	1,449	/	1,503	919	/	911	0	/	35	81	/	0	0					
PM	4:00 PM	0	254	7	17	361	0	0	0	0	2	0	10	651	0	2	0	0	2
	4:15 PM	0	248	5	6	358	0	0	0	0	6	0	7	630	0	1	0	0	1
	4:30 PM	0	268	4	12	347	0	0	0	0	3	0	5	639	0	1	0	0	1
	4:45 PM	0	247	7	3	367	0	0	0	0	8	0	7	639	0	0	0	0	0
	5:00 PM	0	249	6	9	336	0	0	0	0	5	0	9	614	0	1	0	0	1
	5:15 PM	0	237	3	11	369	0	0	0	0	7	0	7	634	0	1	0	0	1
	5:30 PM	0	226	4	11	330	0	0	0	0	4	0	5	580	0	0	0	0	0
	5:45 PM	0	224	3	6	314	0	0	0	0	3	0	5	555	0	0	0	0	0
	VOLUMES	0	1,953	39	75	2,782	0	0	0	0	38	0	55	4,942	0	6	0	0	6
	APPROACH %	0%	98%	2%	3%	97%	0%	0%	0%	0%	41%	0%	59%						
	APP/DEPART	1,992	/	2,014	2,857	/	2,820	0	/	108	93	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	1,017	23	38	1,433	0	0	0	0	19	0	29	2,559					
	APPROACH %	0%	98%	2%	3%	97%	0%	0%	0%	0%	40%	0%	60%						
	PEAK HR FACTOR		0.956			0.973			0.000			0.800		0.983					
	APP/DEPART	1,040	/	1,050	1,471	/	1,452	0	/	57	48	/	0	0					



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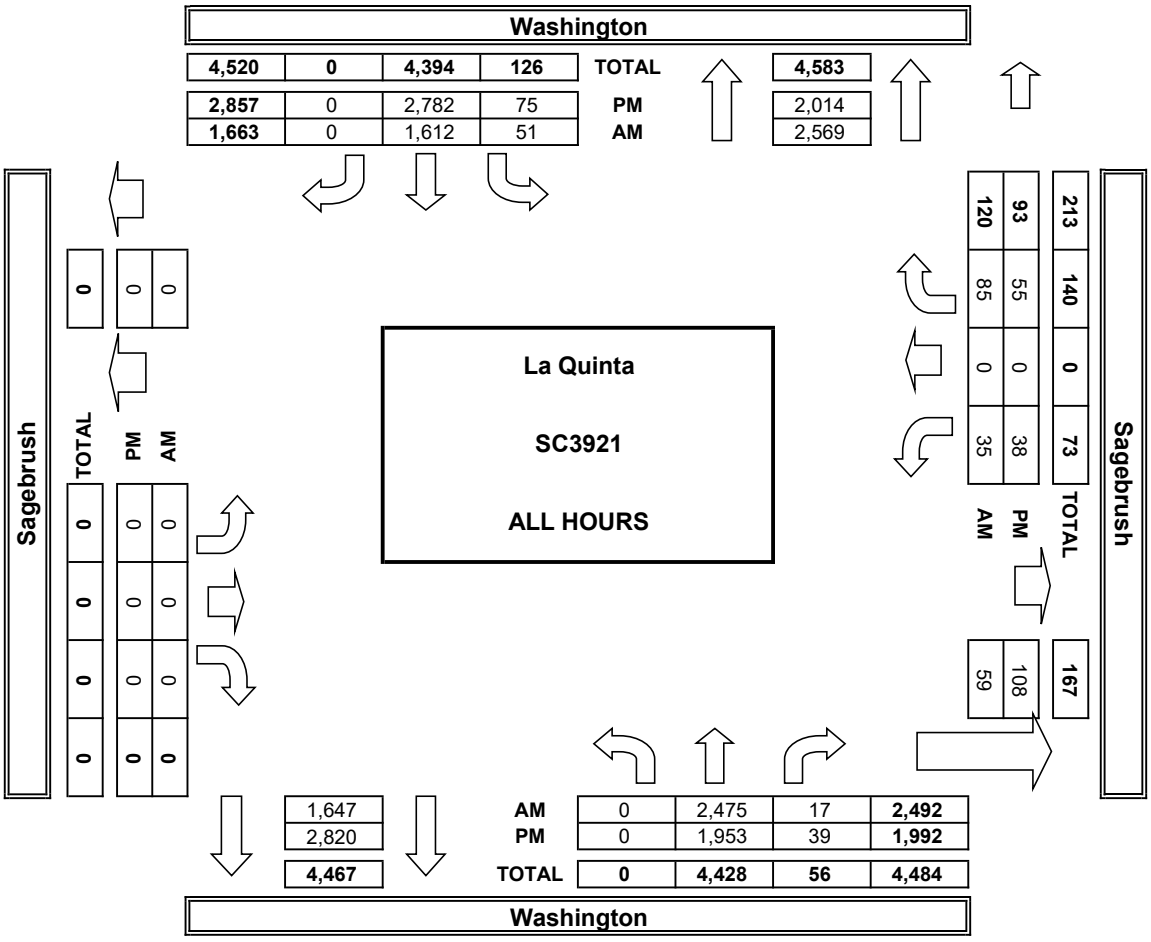
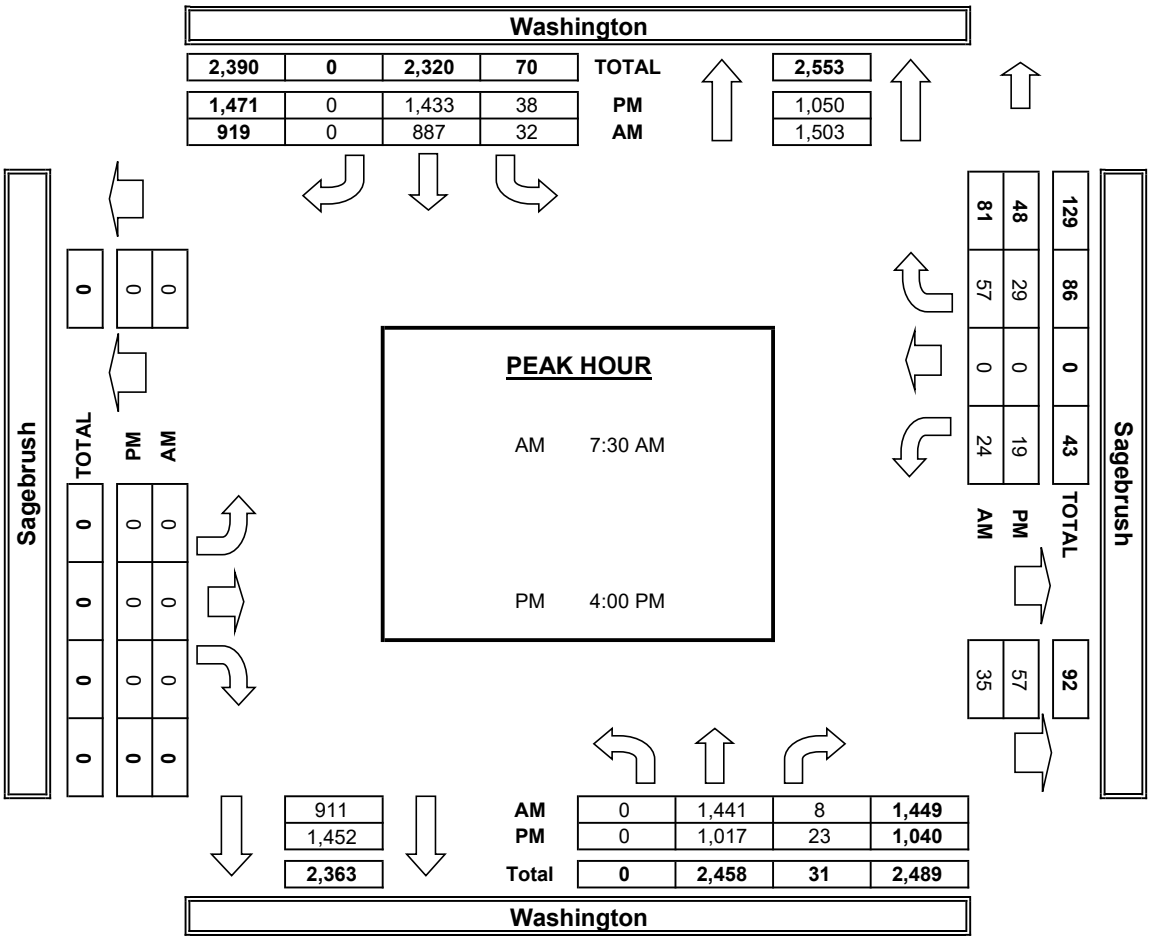
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Mar 30, 23

LOCATION: La Quinta
NORTH & SOUTH: Washington
EAST & WEST: Rancho La Quinta

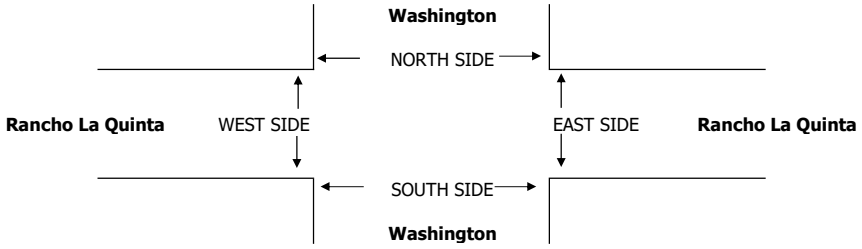
PROJECT #: SC3921
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Washington			SOUTHBOUND Washington			EASTBOUND Rancho La Quinta			WESTBOUND Eisenhower				U-TURNS				
	LANES:	NL 1	NT 3	NR 1	SL 1	ST 3	SR 1	EL 2.3	ET 0.3	ER 0.3	WL 0.5	WT 0.5	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	3	203	2	7	147	62	113	0	5	0	0	3	545	0	0	0	0	0
	7:15 AM	2	297	1	4	153	60	137	0	2	1	0	3	660	0	0	0	0	0
	7:30 AM	1	376	0	4	208	77	183	0	6	2	1	2	860	0	0	0	0	0
	7:45 AM	3	397	1	4	225	89	176	0	3	1	1	5	905	0	0	0	0	0
	8:00 AM	4	383	28	2	233	91	190	0	0	0	2	6	939	0	0	1	0	1
	8:15 AM	2	361	0	7	224	117	162	1	4	2	0	6	886	0	0	0	0	0
	8:30 AM	2	296	3	6	219	91	184	1	5	1	1	7	816	0	1	0	0	1
	8:45 AM	5	289	2	12	204	105	138	2	1	4	1	10	773	1	1	0	0	2
	VOLUMES	22	2,602	37	46	1,613	692	1,283	4	26	11	6	42	6,384	1	2	1	0	4
	APPROACH %	1%	98%	1%	2%	69%	29%	98%	0%	2%	19%	10%	71%						
	APP/DEPART	2,661	/	3,928	2,351	/	1,651	1,313	/	85	59	/	720	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	10	1,517	29	17	890	374	711	1	13	5	4	19	3,590					
	APPROACH %	1%	97%	2%	1%	69%	29%	98%	0%	2%	18%	14%	68%						
	PEAK HR FACTOR		0.937			0.920			0.954			0.875		0.956					
	APP/DEPART	1,556	/	2,246	1,281	/	908	725	/	47	28	/	389	0					
PM	4:00 PM	6	257	2	21	361	199	124	0	3	1	2	7	983	1	0	0	0	1
	4:15 PM	2	248	4	15	379	219	135	0	3	1	0	5	1,011	0	1	0	0	1
	4:30 PM	2	273	4	8	366	196	135	0	5	0	1	5	995	0	0	0	0	0
	4:45 PM	2	255	2	13	373	176	130	2	2	3	0	8	966	0	1	0	0	1
	5:00 PM	1	258	3	14	353	168	126	0	2	1	1	6	933	0	0	0	0	0
	5:15 PM	1	241	4	8	368	200	125	1	2	6	0	7	963	0	1	0	0	1
	5:30 PM	0	230	2	10	343	164	104	0	6	3	2	5	869	0	0	0	0	0
	5:45 PM	2	237	2	5	305	167	129	0	4	5	0	7	863	0	0	0	0	0
	VOLUMES	16	1,999	23	94	2,848	1,489	1,008	3	27	20	6	50	7,583	1	3	0	0	4
	APPROACH %	1%	98%	1%	2%	64%	34%	97%	0%	3%	26%	8%	66%						
	APP/DEPART	2,038	/	3,060	4,431	/	2,896	1,038	/	117	76	/	1,510	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	12	1,033	12	57	1,479	790	524	2	13	5	3	25	3,955					
	APPROACH %	1%	98%	1%	2%	64%	34%	97%	0%	2%	15%	9%	76%						
	PEAK HR FACTOR		0.947			0.949			0.963			0.750		0.978					
	APP/DEPART	1,057	/	1,584	2,326	/	1,498	539	/	69	33	/	804	0					



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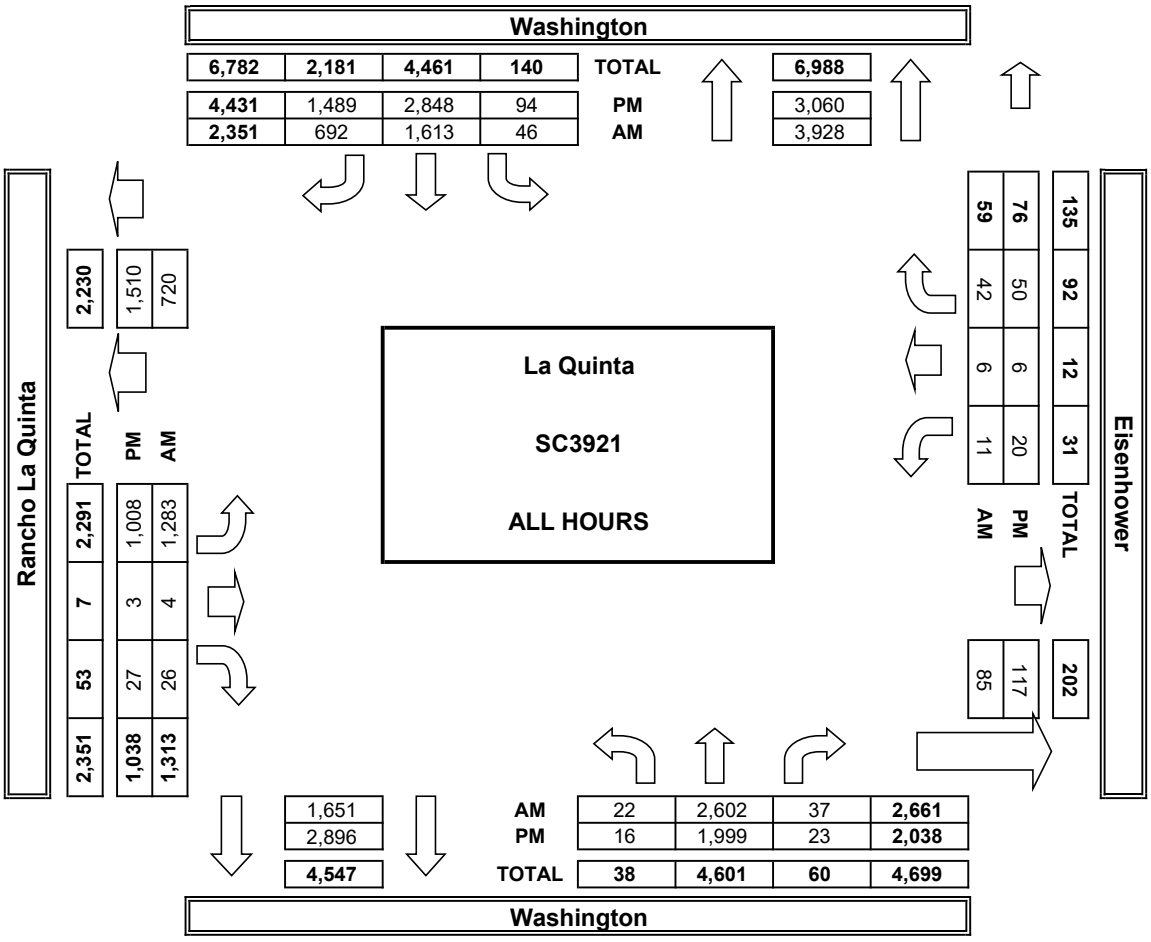
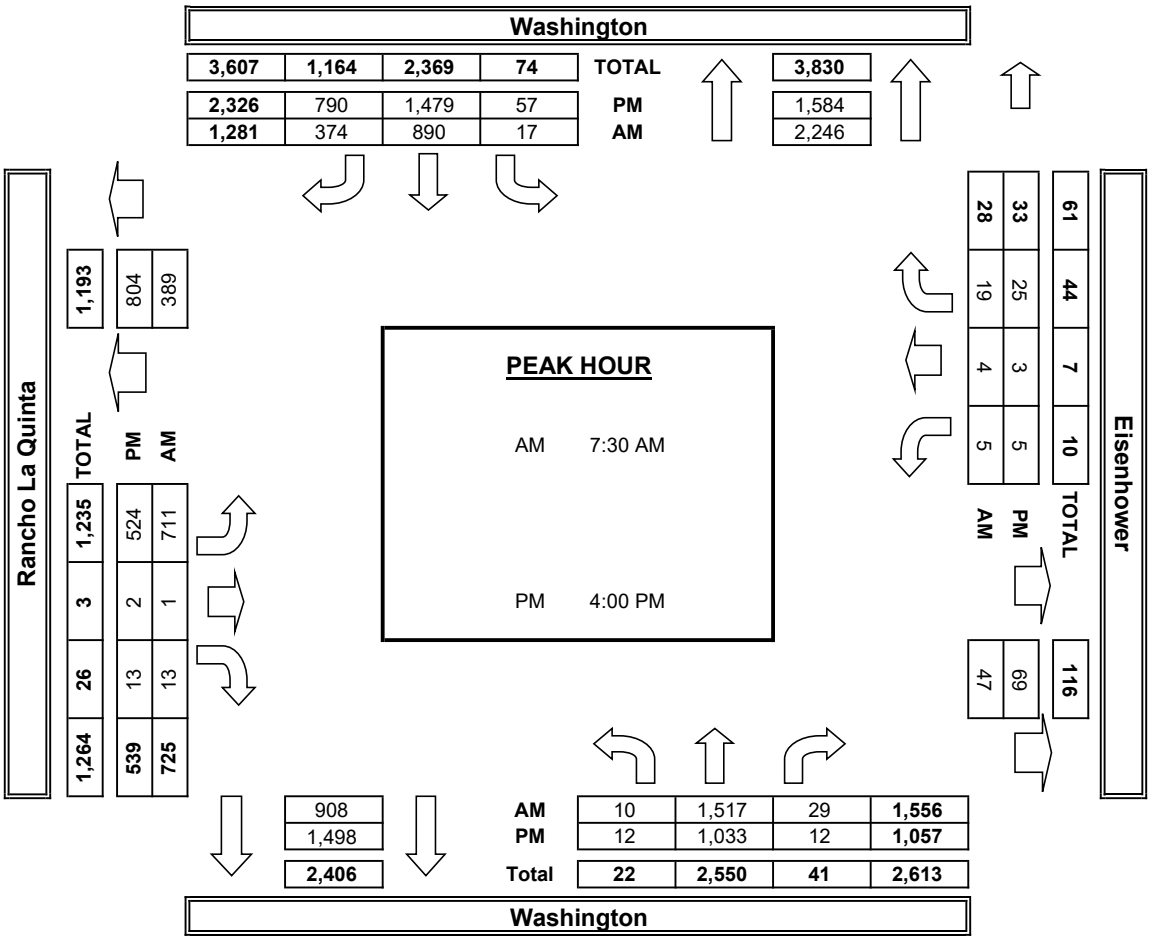
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Mar 30, 23

LOCATION: La Quinta
NORTH & SOUTH: Washington
EAST & WEST: Avenue 48

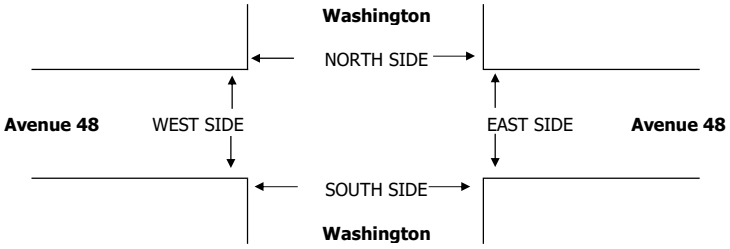
PROJECT #: SC3921
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

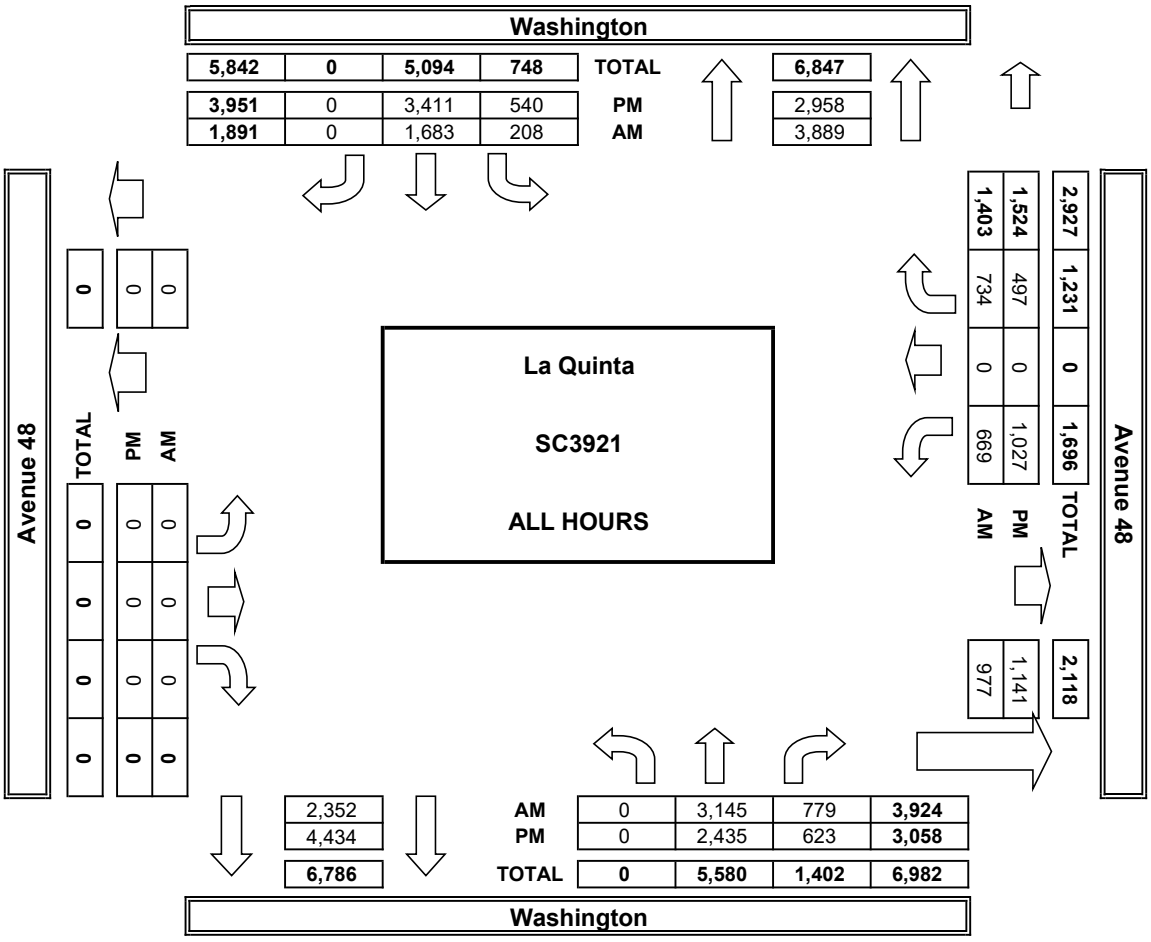
☑ Add U-Turns to Left Turns

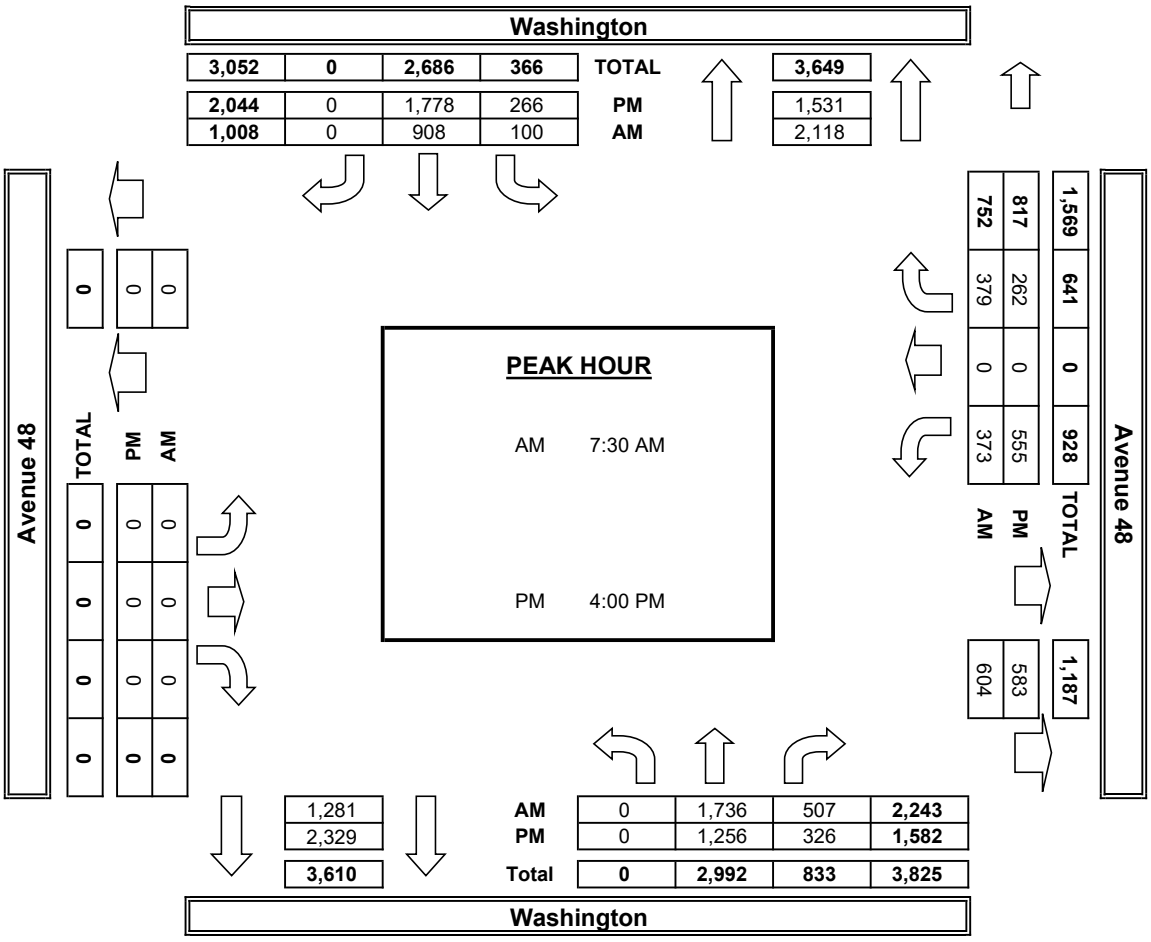
		NORTHBOUND Washington			SOUTHBOUND Washington			EASTBOUND Avenue 48			WESTBOUND Avenue 48				U-TURNS				
	LANES:	NL X	NT 3	NR 0	SL 1	ST 3	SR X	EL X	ET X	ER X	WL 3	WT X	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	281	39	23	159	0	0	0	0	57	0	77	636	0	0	0	0	0
	7:15 AM	0	362	73	14	170	0	0	0	0	49	0	97	765	0	0	0	0	0
	7:30 AM	0	478	77	20	223	0	0	0	0	66	0	101	965	0	0	0	0	0
	7:45 AM	0	433	146	16	238	0	0	0	0	78	0	112	1,023	0	0	0	0	0
	8:00 AM	0	417	161	36	220	0	0	0	0	109	0	95	1,038	0	1	0	0	1
	8:15 AM	0	408	123	28	227	0	0	0	0	120	0	71	977	0	2	0	0	2
	8:30 AM	0	397	90	44	212	0	0	0	0	108	0	93	944	0	4	0	0	4
	8:45 AM	0	369	70	27	234	0	0	0	0	82	0	88	870	0	3	0	0	3
	VOLUMES	0	3,145	779	208	1,683	0	0	0	0	669	0	734	7,218	0	10	0	0	10
	APPROACH %	0%	80%	20%	11%	89%	0%	0%	0%	0%	48%	0%	52%						
	APP/DEPART	3,924	/	3,889	1,891	/	2,352	0	/	977	1,403	/	0	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	1,736	507	100	908	0	0	0	0	373	0	379	4,003					
	APPROACH %	0%	77%	23%	10%	90%	0%	0%	0%	0%	50%	0%	50%						
	PEAK HR FACTOR		0.968			0.984			0.000			0.922		0.964					
	APP/DEPART	2,243	/	2,118	1,008	/	1,281	0	/	604	752	/	0	0					
PM	4:00 PM	0	286	103	75	455	0	0	0	0	133	0	59	1,111	0	4	0	2	6
	4:15 PM	0	296	92	71	463	0	0	0	0	144	0	66	1,132	0	4	0	1	5
	4:30 PM	0	341	70	60	426	0	0	0	0	154	0	72	1,123	0	3	0	1	4
	4:45 PM	0	333	61	60	434	0	0	0	0	124	0	65	1,077	0	2	0	0	2
	5:00 PM	0	319	70	84	392	0	0	0	0	149	0	46	1,060	0	5	0	0	5
	5:15 PM	0	302	71	75	447	0	0	0	0	120	0	75	1,090	0	4	0	0	4
	5:30 PM	0	269	78	47	423	0	0	0	0	94	0	56	967	0	1	0	0	1
	5:45 PM	0	289	78	68	371	0	0	0	0	109	0	58	973	0	3	0	0	3
	VOLUMES	0	2,435	623	540	3,411	0	0	0	0	1,027	0	497	8,533	0	26	0	4	30
	APPROACH %	0%	80%	20%	14%	86%	0%	0%	0%	0%	67%	0%	33%						
	APP/DEPART	3,058	/	2,958	3,951	/	4,434	0	/	1,141	1,524	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	1,256	326	266	1,778	0	0	0	0	555	0	262	4,443					
	APPROACH %	0%	79%	21%	13%	87%	0%	0%	0%	0%	68%	0%	32%						
	PEAK HR FACTOR		0.962			0.957			0.000			0.904		0.981					
	APP/DEPART	1,582	/	1,531	2,044	/	2,329	0	/	583	817	/	0	0					



AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Mar 30, 23

LOCATION: La Quinta
NORTH & SOUTH: Moon River Ave/Park Dr
EAST & WEST: Avenue 50

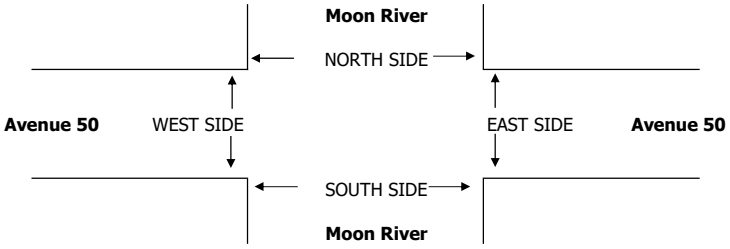
PROJECT #: SC3921
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Moon River			SOUTHBOUND Park			EASTBOUND Avenue 50			WESTBOUND Avenue 50				U-TURNS				
	LANES:	NL 1	NT 3	NR 1	SL 1	ST 3	SR 1	EL 2.3	ET 0.3	ER 0.3	WL 0.5	WT 0.5	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	2	1	6	2	1	1	10	24	4	7	27	18	103	0	0	1	0	1
	7:15 AM	9	5	12	11	2	13	20	25	6	4	42	39	188	0	0	0	0	0
	7:30 AM	11	29	10	47	4	64	52	35	5	8	44	120	429	0	0	0	0	0
	7:45 AM	9	42	9	76	18	103	69	39	3	6	60	135	569	0	0	0	0	0
	8:00 AM	7	30	15	87	8	101	50	45	2	22	52	104	523	0	0	0	0	0
	8:15 AM	3	13	19	69	10	75	42	43	1	14	40	85	414	0	0	0	0	0
	8:30 AM	8	4	14	37	4	27	15	40	7	14	53	31	254	0	0	0	0	0
	8:45 AM	18	1	11	18	1	11	4	49	2	16	73	5	209	0	0	0	0	0
	VOLUMES	67	125	96	347	48	395	262	300	30	91	391	537	2,689	0	0	1	0	1
	APPROACH %	23%	43%	33%	44%	6%	50%	44%	51%	5%	9%	38%	53%						
	APP/DEPART	288	/	923	790	/	169	592	/	743	1,019	/	854	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	30	114	53	279	40	343	213	162	11	50	196	444	1,935					
	APPROACH %	15%	58%	27%	42%	6%	52%	55%	42%	3%	7%	28%	64%						
	PEAK HR FACTOR		0.821			0.840			0.869			0.858		0.850					
	APP/DEPART	197	/	771	662	/	101	386	/	494	690	/	569	0					
PM	4:00 PM	10	4	25	33	2	15	22	81	13	8	48	10	271	0	0	0	1	1
	4:15 PM	9	9	15	22	0	18	18	89	9	22	58	10	279	0	0	0	0	0
	4:30 PM	7	6	17	44	12	39	16	52	10	12	40	14	269	0	0	0	0	0
	4:45 PM	8	2	25	22	2	18	19	62	7	12	55	23	255	0	0	4	0	4
	5:00 PM	4	3	19	16	0	9	28	63	6	17	43	30	238	0	0	3	0	3
	5:15 PM	2	2	15	34	2	20	27	59	8	20	72	41	302	0	0	2	0	2
	5:30 PM	4	7	24	23	5	12	18	57	4	13	53	27	247	0	0	1	1	2
	5:45 PM	4	1	21	9	1	12	12	48	2	15	45	26	196	0	0	0	1	1
	VOLUMES	48	34	161	203	24	143	160	511	59	119	414	181	2,057	0	0	10	3	13
	APPROACH %	20%	14%	66%	55%	6%	39%	22%	70%	8%	17%	58%	25%						
	APP/DEPART	243	/	365	370	/	199	730	/	878	714	/	615	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	34	21	82	121	16	90	75	284	39	54	201	57	1,074					
	APPROACH %	25%	15%	60%	53%	7%	40%	19%	71%	10%	17%	64%	18%						
	PEAK HR FACTOR		0.878			0.597			0.858			0.867		0.962					
	APP/DEPART	137	/	149	227	/	108	398	/	488	312	/	329	0					



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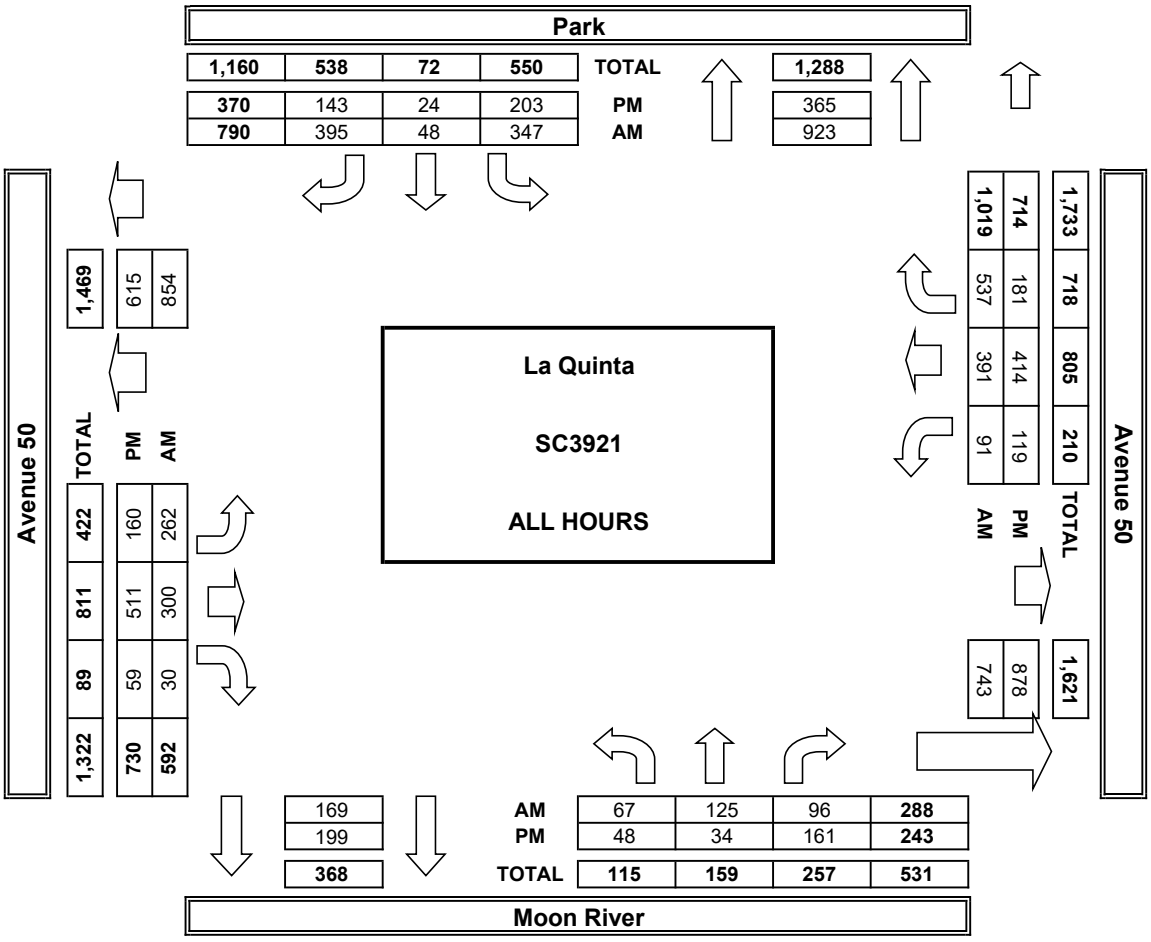
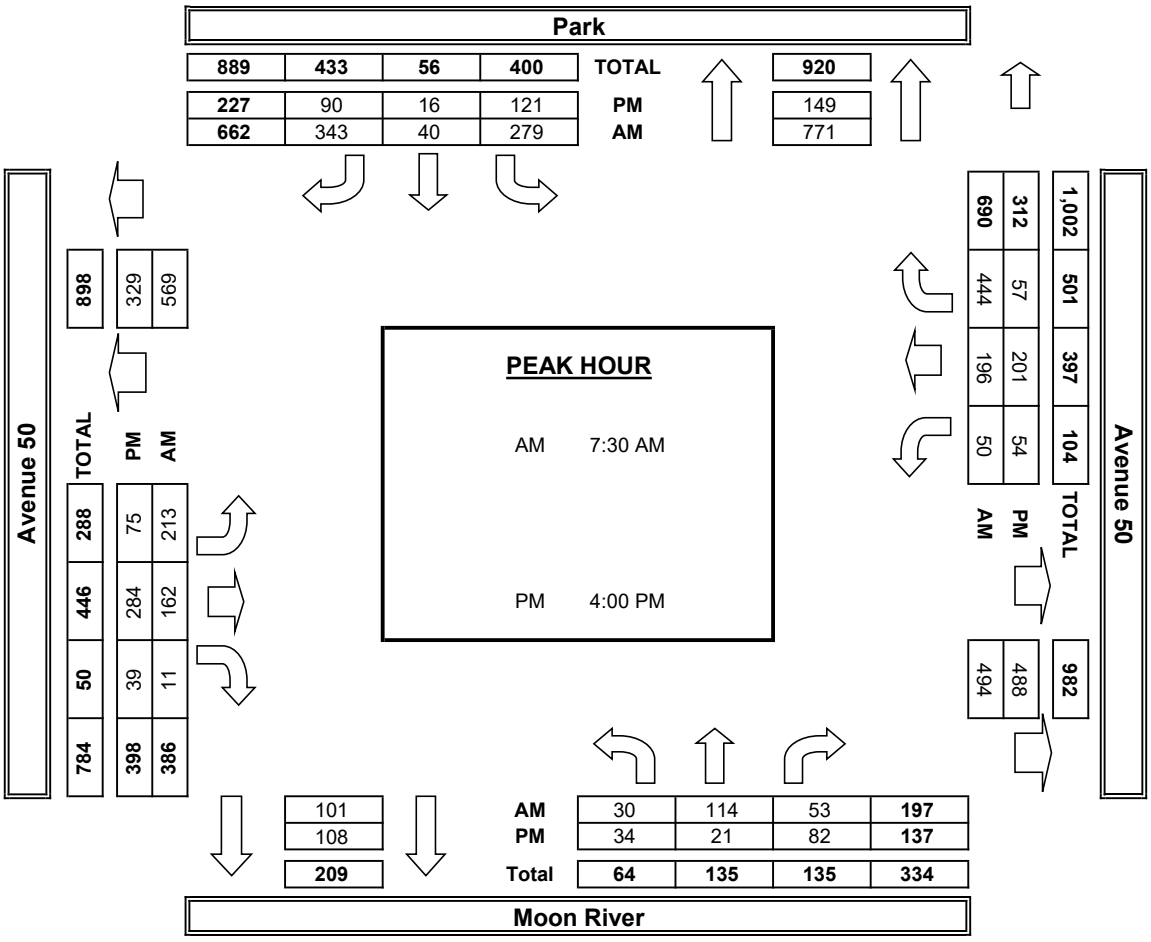
TURNING MOVEMENT COUNTS





Thursday, March 30, 2023 CITY: La Quinta PROJECT: SC3921

ADT1 Washington north of Avenue 50. **Prepared by AimTD LLC tel. 714 253 7888**

AM Period	NB		SB			PM Period	NB		SB		
0:00	7		25			12:00	263		271		
0:15	7		22			12:15	325		258		
0:30	4		17			12:30	243		230		
0:45	7	25	19	83	108	12:45	246	1077	266	1025	2102
1:00	11		15			13:00	231		274		
1:15	5		14			13:15	282		257		
1:30	6		10			13:30	315		288		
1:45	6	28	20	59	87	13:45	252	1080	302	1121	2201
2:00	7		6			14:00	277		324		
2:15	0		9			14:15	277		274		
2:30	4		9			14:30	332		362		
2:45	6	17	5	29	46	14:45	330	1216	354	1314	2530
3:00	11		4			15:00	341		291		
3:15	8		5			15:15	299		375		
3:30	12		8			15:30	269		335		
3:45	15	46	5	22	68	15:45	261	1170	364	1365	2535
4:00	11		12			16:00	262		362		
4:15	17		4			16:15	245		364		
4:30	36		17			16:30	277		349		
4:45	47	111	12	45	156	16:45	255	1039	376	1451	2490
5:00	39		17			17:00	256		332		
5:15	43		27			17:15	240		386		
5:30	56		43			17:30	228		333		
5:45	91	229	32	119	348	17:45	228	952	316	1367	2319
6:00	72		50			18:00	192		263		
6:15	112		57			18:15	193		243		
6:30	158		89			18:30	205		260		
6:45	185	527	145	341	868	18:45	174	764	204	970	1734
7:00	194		143			19:00	138		225		
7:15	283		133			19:15	162		192		
7:30	354		222			19:30	161		171		
7:45	381	1212	253	751	1963	19:45	146	607	188	776	1383
8:00	384		238			20:00	93		175		
8:15	331		218			20:15	98		168		
8:30	283		231			20:30	112		159		
8:45	285	1283	204	891	2174	20:45	96	399	137	639	1038
9:00	254		194			21:00	100		144		
9:15	284		215			21:15	93		145		
9:30	258		182			21:30	73		137		
9:45	263	1059	199	790	1849	21:45	75	341	141	567	908
10:00	237		218			22:00	98		103		
10:15	244		219			22:15	54		68		
10:30	287		209			22:30	55		69		
10:45	246	1014	231	877	1891	22:45	32	239	55	295	534
11:00	327		273			23:00	40		47		
11:15	279		269			23:15	21		46		
11:30	283		233			23:30	22		45		
11:45	285	1174	270	1045	2219	23:45	15	98	30	168	266
Total Vol.		6725		5052	**11777**			8982		11058	**20040**

Daily Totals

NB	SB	**Combined**
15707	16110	**31817**

	AM			**PM**		
Split %	57.1%	42.9%	**37.0%**	44.8%	55.2%	**63.0%**
Peak Hour	7:30	11:00	**7:30**	14:30	16:00	**14:30**
Volume	1450	1045	**2381**	1302	1451	**2684**
P.H.F.	0.94	0.96	**0.94**	0.99	0.96	**0.97**

Thursday, March 30, 2023 CITY: La Quinta PROJECT: SC3921

ADT2 Washington south of Avenue 50. **Prepared by AimTD LLC tel. 714 253 7888**

AM Period	NB		SB			PM Period	NB		SB		
0:00	4		22			12:00	232		240		
0:15	6		21			12:15	302		233		
0:30	4		14			12:30	226		216		
0:45	7	21	18	75	96	12:45	233	993	248	937	1930
1:00	10		14			13:00	209		242		
1:15	5		14			13:15	233		218		
1:30	5		10			13:30	272		262		
1:45	9	29	21	59	88	13:45	222	936	262	984	1920
2:00	6		8			14:00	251		302		
2:15	1		8			14:15	252		242		
2:30	5		8			14:30	288		340		
2:45	5	17	5	29	46	14:45	272	1063	313	1197	2260
3:00	10		3			15:00	271		264		
3:15	4		5			15:15	274		324		
3:30	12		9			15:30	246		293		
3:45	17	43	6	23	66	15:45	226	1017	330	1211	2228
4:00	10		14			16:00	242		311		
4:15	15		5			16:15	233		326		
4:30	36		18			16:30	248		316		
4:45	48	109	16	53	162	16:45	232	955	358	1311	2266
5:00	38		14			17:00	246		280		
5:15	42		25			17:15	228		361		
5:30	58		41			17:30	215		324		
5:45	94	232	33	113	345	17:45	207	896	305	1270	2166
6:00	68		52			18:00	184		241		
6:15	109		57			18:15	169		219		
6:30	149		90			18:30	197		244		
6:45	178	504	126	325	829	18:45	172	722	197	901	1623
7:00	182		109			19:00	125		204		
7:15	251		112			19:15	148		179		
7:30	299		165			19:30	138		173		
7:45	298	1030	240	626	1656	19:45	137	548	180	736	1284
8:00	317		238			20:00	100		149		
8:15	262		199			20:15	95		152		
8:30	233		232			20:30	113		147		
8:45	242	1054	200	869	1923	20:45	98	406	122	570	976
9:00	244		184			21:00	90		125		
9:15	248		198			21:15	94		134		
9:30	228		164			21:30	88		127		
9:45	225	945	187	733	1678	21:45	80	352	119	505	857
10:00	206		208			22:00	100		94		
10:15	213		199			22:15	52		62		
10:30	260		193			22:30	53		61		
10:45	215	894	216	816	1710	22:45	44	249	52	269	518
11:00	283		249			23:00	38		43		
11:15	245		259			23:15	20		45		
11:30	277		206			23:30	20		36		
11:45	253	1058	244	958	2016	23:45	15	93	30	154	247
Total Vol.		5936		4679	**10615**			8230		10045	**18275**

Daily Totals

NB	SB	**Combined**
14166	14724	**28890**

	AM			**PM**		
Split %	55.9%	44.1%	**36.7%**	45.0%	55.0%	**63.3%**
Peak Hour	7:30	11:00	**7:45**	14:30	16:45	**14:30**
Volume	1176	958	**2019**	1105	1323	**2346**
P.H.F.	0.93	0.92	**0.91**	0.96	0.92	**0.93**

Thursday, March 30, 2023 | CITY: La Quinta | PROJECT: SC3921

ADT3 Avenue 50 west of Washington.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	EB		WB			PM Period	EB		WB		
0:00	0		3			12:00	32		38		
0:15	0		1			12:15	37		35		
0:30	1		1			12:30	36		39		
0:45	2	3	1	6	9	12:45	41	146	39	151	297
1:00	1		2			13:00	39		33		
1:15	0		1			13:15	45		33		
1:30	1		1			13:30	50		34		
1:45	0	2	3	7	9	13:45	36	170	25	125	295
2:00	2		0			14:00	36		44		
2:15	0		0			14:15	64		40		
2:30	2		1			14:30	53		46		
2:45	1	5	1	2	7	14:45	60	213	51	181	394
3:00	2		1			15:00	53		45		
3:15	1		0			15:15	47		38		
3:30	1		1			15:30	45		45		
3:45	0	4	2	4	8	15:45	35	180	46	174	354
4:00	4		4			16:00	42		41		
4:15	1		0			16:15	38		33		
4:30	2		1			16:30	32		40		
4:45	4	11	4	9	20	16:45	45	157	29	143	300
5:00	3		5			17:00	37		30		
5:15	2		5			17:15	37		41		
5:30	7		14			17:30	37		39		
5:45	1	13	21	45	58	17:45	33	144	29	139	283
6:00	5		7			18:00	27		26		
6:15	6		11			18:15	39		22		
6:30	19		24			18:30	27		26		
6:45	10	40	39	81	121	18:45	23	116	23	97	213
7:00	23		31			19:00	17		15		
7:15	29		30			19:15	19		18		
7:30	41		35			19:30	26		24		
7:45	52	145	58	154	299	19:45	14	76	23	80	156
8:00	58		47			20:00	10		12		
8:15	59		53			20:15	6		14		
8:30	45		29			20:30	9		11		
8:45	39	201	46	175	376	20:45	11	36	14	51	87
9:00	30		22			21:00	9		14		
9:15	39		33			21:15	4		15		
9:30	34		31			21:30	1		11		
9:45	39	142	30	116	258	21:45	9	23	12	52	75
10:00	45		28			22:00	8		10		
10:15	37		24			22:15	5		10		
10:30	43		35			22:30	7		2		
10:45	44	169	26	113	282	22:45	2	22	7	29	51
11:00	40		28			23:00	3		8		
11:15	52		29			23:15	4		1		
11:30	36		62			23:30	4		6		
11:45	32	160	53	172	332	23:45	1	12	2	17	29
Total Vol.		895		884	**1779**		1295		1239		**2534**

	Daily Totals EB	WB	**Combined**
	2190	2123	**4313**

	AM			**PM**		
Split %	50.3%	49.7%	**41.2%**	51.1%	48.9%	**58.8%**
Peak Hour	7:45	7:30	**7:30**	14:15	14:15	**14:15**
Volume	214	193	**403**	230	182	**412**
P.H.F.	0.91	0.83	**0.90**	0.90	0.89	**0.93**

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Thursday, March 30, 2023 | CITY: La Quinta | PROJECT: SC3921

ADT4 Avenue 50 east of Washington.

Prepared by AimTD LLC tel. 714 253 7888

AM Period	EB		WB			PM Period	EB		WB		
0:00	2		5			12:00	66		72		
0:15	2		3			12:15	69		65		
0:30	3		0			12:30	59		65		
0:45	3	10	1	9	19	12:45	77	271	70	272	543
1:00	2		3			13:00	75		59		
1:15	1		2			13:15	90		88		
1:30	1		2			13:30	67		68		
1:45	4	8	5	12	20	13:45	85	317	64	279	596
2:00	0		1			14:00	65		77		
2:15	2		0			14:15	106		75		
2:30	3		0			14:30	123		138		
2:45	0	5	1	2	7	14:45	95	389	103	393	782
3:00	2		1			15:00	94		129		
3:15	1		4			15:15	104		69		
3:30	1		2			15:30	107		88		
3:45	0	4	1	8	12	15:45	85	390	97	383	773
4:00	2		5			16:00	108		76		
4:15	1		3			16:15	115		84		
4:30	5		5			16:30	79		83		
4:45	4	12	7	20	32	16:45	93	395	82	325	720
5:00	5		5			17:00	100		51		
5:15	5		7			17:15	87		78		
5:30	11		14			17:30	79		85		
5:45	5	26	23	49	75	17:45	59	325	65	279	604
6:00	7		15			18:00	60		45		
6:15	16		24			18:15	59		42		
6:30	16		31			18:30	55		46		
6:45	25	64	42	112	176	18:45	49	223	44	177	400
7:00	42		28			19:00	52		42		
7:15	48		60			19:15	54		54		
7:30	121		113			19:30	34		57		
7:45	100	311	176	377	688	19:45	24	164	34	187	351
8:00	103		159			20:00	42		11		
8:15	73		117			20:15	29		24		
8:30	61		96			20:30	29		18		
8:45	55	292	101	473	765	20:45	32	132	18	71	203
9:00	51		43			21:00	32		28		
9:15	42		55			21:15	26		25		
9:30	41		50			21:30	30		15		
9:45	52	186	69	217	403	21:45	31	119	7	75	194
10:00	50		54			22:00	24		15		
10:15	54		52			22:15	14		15		
10:30	58		61			22:30	19		8		
10:45	60	222	58	225	447	22:45	13	70	3	41	111
11:00	66		74			23:00	7		10		
11:15	69		70			23:15	7		4		
11:30	77		82			23:30	8		3		
11:45	62	274	89	315	589	23:45	3	25	4	21	46
Total Vol.		1414		1819	**3233**			2820		2503	**5323**

	Daily Totals EB	WB	**Combined**
	4234	4322	**8556**

	AM			**PM**		
Split %	43.7%	56.3%	**37.8%**	53.0%	47.0%	**62.2%**
Peak Hour	7:30	7:30	**7:30**	14:15	14:15	**14:15**
Volume	397	565	**962**	418	445	**863**
P.H.F.	0.82	0.80	**0.87**	0.85	0.81	**0.83**

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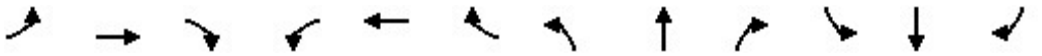
APPENDIX C -

EXISTING CONDITIONS PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	122	35	121	108	336	29	1061	86	189	665	57
Future Volume (veh/h)	53	122	35	121	108	336	29	1061	86	189	665	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	57	131	38	130	116	361	31	1141	92	203	715	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	738	206	303	553	521	77	1492	120	323	1739	147
Arrive On Green	0.07	0.27	0.27	0.09	0.30	0.30	0.05	0.31	0.31	0.10	0.36	0.36
Sat Flow, veh/h	1697	2729	762	3292	1870	1316	1697	4807	387	3292	4787	406
Grp Volume(v), veh/h	57	84	85	130	116	361	31	808	425	203	507	269
Grp Sat Flow(s),veh/h/ln	1697	1777	1714	1646	1870	1316	1697	1702	1790	1646	1702	1788
Q Serve(g_s), s	2.3	2.5	2.7	2.6	3.3	16.0	1.2	15.0	15.0	4.1	7.8	7.9
Cycle Q Clear(g_c), s	2.3	2.5	2.7	2.6	3.3	16.0	1.2	15.0	15.0	4.1	7.8	7.9
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.22	1.00		0.23
Lane Grp Cap(c), veh/h	114	481	464	303	553	521	77	1056	555	323	1236	650
V/C Ratio(X)	0.50	0.17	0.18	0.43	0.21	0.69	0.40	0.76	0.77	0.63	0.41	0.41
Avail Cap(c_a), veh/h	170	737	711	330	776	678	170	1217	640	377	1266	665
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	31.5	19.5	19.6	30.0	18.5	17.7	32.5	21.8	21.8	30.3	16.7	16.7
Incr Delay (d2), s/veh	3.4	0.2	0.2	1.0	0.2	2.1	3.4	2.6	4.8	2.6	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.9	1.0	1.0	1.2	4.3	0.5	5.5	6.1	1.6	2.6	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	19.7	19.8	31.0	18.7	19.8	35.8	24.4	26.6	32.9	16.9	17.1
LnGrp LOS	C	B	B	C	B	B	D	C	C	C	B	B
Approach Vol, veh/h		226			607			1264			979	
Approach Delay, s/veh		23.5			22.0			25.4			20.3	
Approach LOS		C			C			C			C	

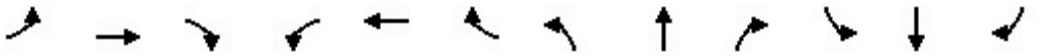
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	25.7	10.4	22.9	7.2	29.4	8.7	24.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	25.0	7.0	29.0	7.0	26.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	6.1	17.0	4.6	4.7	3.2	9.9	4.3	18.0
Green Ext Time (p_c), s	0.1	4.3	0.1	0.8	0.0	4.0	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	24	57	1441	8	32	887
Future Volume (veh/h)	24	57	1441	8	32	887
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	25	60	1517	8	34	934
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	186	147	2699	14	94	3457
Arrive On Green	0.11	0.11	0.51	0.51	0.06	0.68
Sat Flow, veh/h	1697	1343	5410	28	1697	5274
Grp Volume(v), veh/h	25	60	985	540	34	934
Grp Sat Flow(s),veh/h/ln	1697	1343	1702	1865	1697	1702
Q Serve(g_s), s	0.5	1.6	7.4	7.4	0.7	2.7
Cycle Q Clear(g_c), s	0.5	1.6	7.4	7.4	0.7	2.7
Prop In Lane	1.00	1.00		0.01	1.00	
Lane Grp Cap(c), veh/h	186	147	1752	960	94	3457
V/C Ratio(X)	0.13	0.41	0.56	0.56	0.36	0.27
Avail Cap(c_a), veh/h	407	322	2813	1541	362	5853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	15.6	6.2	6.2	17.1	2.4
Incr Delay (d2), s/veh	0.3	1.8	0.3	0.5	2.3	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	0.2	0.5	1.0	1.1	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.4	17.4	6.5	6.7	19.4	2.4
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	85		1525			968
Approach Delay, s/veh	16.8		6.6			3.0
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.1	23.3			29.4	8.1
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	8.0	31.0			43.0	9.0
Max Q Clear Time (g_c+I1), s	2.7	9.4			4.7	3.6
Green Ext Time (p_c), s	0.0	9.9			6.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	711	1	13	5	4	19	10	1517	29	17	890	374
Future Volume (veh/h)	711	1	13	5	4	19	10	1517	29	17	890	374
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	755	0	0	5	4	20	10	1580	30	18	927	390
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1185	435	0	72	58	93	30	2046	529	51	2109	854
Arrive On Green	0.23	0.00	0.00	0.07	0.07	0.07	0.02	0.40	0.40	0.03	0.41	0.41
Sat Flow, veh/h	5091	1870	0	1011	809	1297	1697	5106	1319	1697	5106	1312
Grp Volume(v), veh/h	755	0	0	9	0	20	10	1580	30	18	927	390
Grp Sat Flow(s),veh/h/ln	1697	1870	0	1820	0	1297	1697	1702	1319	1697	1702	1312
Q Serve(g_s), s	8.1	0.0	0.0	0.3	0.0	0.9	0.4	16.2	0.8	0.6	7.9	9.1
Cycle Q Clear(g_c), s	8.1	0.0	0.0	0.3	0.0	0.9	0.4	16.2	0.8	0.6	7.9	9.1
Prop In Lane	1.00		0.00	0.56		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1185	435	0	130	0	93	30	2046	529	51	2109	854
V/C Ratio(X)	0.64	0.00	0.00	0.07	0.00	0.22	0.33	0.77	0.06	0.35	0.44	0.46
Avail Cap(c_a), veh/h	2950	1084	0	1055	0	751	197	2283	590	197	2283	899
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	0.0	0.0	26.2	0.0	26.4	29.3	15.7	11.1	28.7	12.7	5.4
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.2	0.0	1.2	6.2	1.5	0.0	4.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	0.1	0.0	0.3	0.2	5.1	0.2	0.3	2.3	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	0.0	0.0	26.4	0.0	27.6	35.5	17.2	11.1	32.8	12.9	5.8
LnGrp LOS	C	A	A	C	A	C	D	B	B	C	B	A
Approach Vol, veh/h		755			29			1620			1335	
Approach Delay, s/veh		21.5			27.2			17.2			11.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	28.2		18.1	5.1	28.9		8.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	27.0		35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+I1), s	2.6	18.2		10.1	2.4	11.1		2.9				
Green Ext Time (p_c), s	0.0	6.0		2.9	0.0	6.6		0.1				

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

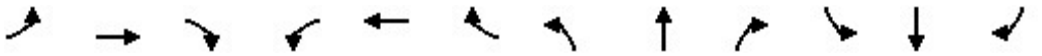
Notes

User approved volume balancing among the lanes for turning movement.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	373	379	1736	507	100	908
Future Volume (veh/h)	373	379	1736	507	100	908
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	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	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	389	395	1808	528	104	946
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1637	459	1977	509	296	2744
Arrive On Green	0.34	0.34	0.39	0.39	0.09	0.54
Sat Flow, veh/h	4785	1343	5274	1315	3292	5274
Grp Volume(v), veh/h	389	395	1808	528	104	946
Grp Sat Flow(s),veh/h/ln	1595	1343	1702	1315	1646	1702
Q Serve(g_s), s	3.9	18.2	22.3	25.7	2.0	7.0
Cycle Q Clear(g_c), s	3.9	18.2	22.3	25.7	2.0	7.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1637	459	1977	509	296	2744
V/C Ratio(X)	0.24	0.86	0.91	1.04	0.35	0.34
Avail Cap(c_a), veh/h	2522	708	1999	515	347	2845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	20.4	19.3	20.3	28.4	8.7
Incr Delay (d2), s/veh	0.1	6.7	7.0	49.7	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	5.5	8.3	13.3	0.7	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.7	27.0	26.3	70.1	29.1	8.8
LnGrp LOS	B	C	C	F	C	A
Approach Vol, veh/h	784		2336			1050
Approach Delay, s/veh	21.4		36.2			10.8
Approach LOS	C		D			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.0	29.7			39.7	26.7
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	7.0	26.0			37.0	35.0
Max Q Clear Time (g_c+I1), s	4.0	24.3			9.0	20.2
Green Ext Time (p_c), s	0.1	1.4			6.5	2.5

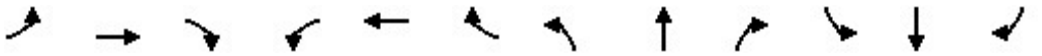
Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	162	11	50	196	444	30	114	53	279	40	343
Future Volume (veh/h)	213	162	11	50	196	444	30	114	53	279	40	343
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	251	191	13	59	231	522	35	134	62	328	47	404
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	822	311	113	577	218	44	168	78	504	72	432
Arrive On Green	0.14	0.23	0.23	0.07	0.16	0.16	0.16	0.16	0.16	0.32	0.32	0.32
Sat Flow, veh/h	1697	3554	1343	1697	3554	1343	268	1028	475	1567	225	1343
Grp Volume(v), veh/h	251	191	13	59	231	522	231	0	0	375	0	404
Grp Sat Flow(s),veh/h/ln	1697	1777	1343	1697	1777	1343	1771	0	0	1792	0	1343
Q Serve(g_s), s	10.0	3.2	0.6	2.5	4.3	12.0	9.3	0.0	0.0	13.3	0.0	21.5
Cycle Q Clear(g_c), s	10.0	3.2	0.6	2.5	4.3	12.0	9.3	0.0	0.0	13.3	0.0	21.5
Prop In Lane	1.00		1.00	1.00		1.00	0.15		0.27	0.87		1.00
Lane Grp Cap(c), veh/h	230	822	311	113	577	218	290	0	0	577	0	432
V/C Ratio(X)	1.09	0.23	0.04	0.52	0.40	2.39	0.80	0.00	0.00	0.65	0.00	0.93
Avail Cap(c_a), veh/h	230	822	311	161	577	218	552	0	0	582	0	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.9	23.1	22.0	33.3	27.7	30.9	29.7	0.0	0.0	21.5	0.0	24.3
Incr Delay (d2), s/veh	86.2	0.1	0.1	3.7	0.4	640.2	5.0	0.0	0.0	2.5	0.0	27.3
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	9.2	1.2	0.2	1.1	1.7	42.3	4.1	0.0	0.0	5.7	0.0	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	118.2	23.2	22.1	37.0	28.2	671.1	34.7	0.0	0.0	24.0	0.0	51.6
LnGrp LOS	F	C	C	D	C	F	C	A	A	C	A	D
Approach Vol, veh/h		455			812			231			779	
Approach Delay, s/veh		75.6			442.2			34.7			38.3	
Approach LOS		E			F			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.1	8.9	21.1		27.8	14.0	16.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		23.0	7.0	15.0		24.0	10.0	12.0				
Max Q Clear Time (g_c+I1), s		11.3	4.5	5.2		23.5	12.0	14.0				
Green Ext Time (p_c), s		0.9	0.0	0.7		0.2	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			189.4									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	91	29	97	70	158	24	844	87	217	1185	49
Future Volume (veh/h)	37	91	29	97	70	158	24	844	87	217	1185	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	38	93	30	99	71	161	24	861	89	221	1209	50
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	458	141	333	406	454	67	1407	145	416	1945	80
Arrive On Green	0.06	0.17	0.17	0.10	0.22	0.22	0.04	0.30	0.30	0.13	0.39	0.39
Sat Flow, veh/h	1697	2657	817	3292	1870	1312	1697	4691	483	3292	5025	208
Grp Volume(v), veh/h	38	61	62	99	71	161	24	624	326	221	819	440
Grp Sat Flow(s),veh/h/ln	1697	1777	1697	1646	1870	1312	1697	1702	1770	1646	1702	1829
Q Serve(g_s), s	1.2	1.6	1.7	1.5	1.6	4.9	0.7	8.4	8.4	3.4	10.3	10.4
Cycle Q Clear(g_c), s	1.2	1.6	1.7	1.5	1.6	4.9	0.7	8.4	8.4	3.4	10.3	10.4
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.27	1.00		0.11
Lane Grp Cap(c), veh/h	96	306	293	333	406	454	67	1021	531	416	1318	708
V/C Ratio(X)	0.40	0.20	0.21	0.30	0.18	0.35	0.36	0.61	0.61	0.53	0.62	0.62
Avail Cap(c_a), veh/h	223	967	924	432	1018	883	223	1533	797	556	1661	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	18.9	18.9	22.2	17.0	13.1	24.9	16.0	16.0	21.8	13.2	13.2
Incr Delay (d2), s/veh	2.6	0.3	0.4	0.5	0.2	0.5	3.2	0.6	1.2	1.1	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.6	0.6	0.5	0.6	1.1	0.3	2.6	2.8	1.1	2.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	19.2	19.3	22.7	17.2	13.6	28.2	16.6	17.2	22.9	13.7	14.1
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		161			331			974			1480	
Approach Delay, s/veh		21.1			17.1			17.1			15.2	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	20.0	9.4	13.2	6.1	24.6	7.0	15.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	24.0	7.0	29.0	7.0	26.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	5.4	10.4	3.5	3.7	2.7	12.4	3.2	6.9
Green Ext Time (p_c), s	0.2	4.7	0.1	0.5	0.0	6.3	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	19	29	1017	23	38	1433
Future Volume (veh/h)	19	29	1017	23	38	1433
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	19	30	1038	23	39	1462
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	134	106	2260	50	111	3286
Arrive On Green	0.08	0.08	0.44	0.44	0.07	0.64
Sat Flow, veh/h	1697	1343	5308	114	1697	5274
Grp Volume(v), veh/h	19	30	687	374	39	1462
Grp Sat Flow(s),veh/h/ln	1697	1343	1702	1850	1697	1702
Q Serve(g_s), s	0.3	0.6	4.1	4.1	0.6	4.1
Cycle Q Clear(g_c), s	0.3	0.6	4.1	4.1	0.6	4.1
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	134	106	1497	813	111	3286
V/C Ratio(X)	0.14	0.28	0.46	0.46	0.35	0.44
Avail Cap(c_a), veh/h	530	419	3425	1861	589	7618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.4	12.5	5.7	5.7	12.9	2.6
Incr Delay (d2), s/veh	0.5	1.4	0.2	0.4	1.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.3	0.4	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.8	14.0	5.9	6.1	14.8	2.7
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	49		1061			1501
Approach Delay, s/veh	13.5		6.0			3.0
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.9	16.7			22.6	6.3
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	10.0	29.0			43.0	9.0
Max Q Clear Time (g_c+I1), s	2.6	6.1			6.1	2.6
Green Ext Time (p_c), s	0.0	6.5			12.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.4
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	524	2	13	5	3	25	12	1033	12	57	1479	790
Future Volume (veh/h)	524	2	13	5	3	25	12	1033	12	57	1479	790
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	549	0	0	5	3	26	12	1054	12	58	1509	806
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	948	348	0	87	52	100	36	2034	525	123	2295	840
Arrive On Green	0.19	0.00	0.00	0.08	0.08	0.08	0.02	0.40	0.40	0.07	0.45	0.45
Sat Flow, veh/h	5091	1870	0	1134	680	1297	1697	5106	1319	1697	5106	1312
Grp Volume(v), veh/h	549	0	0	8	0	26	12	1054	12	58	1509	806
Grp Sat Flow(s),veh/h/ln	1697	1870	0	1814	0	1297	1697	1702	1319	1697	1702	1312
Q Serve(g_s), s	5.9	0.0	0.0	0.2	0.0	1.1	0.4	9.4	0.3	2.0	13.9	27.0
Cycle Q Clear(g_c), s	5.9	0.0	0.0	0.2	0.0	1.1	0.4	9.4	0.3	2.0	13.9	27.0
Prop In Lane	1.00		0.00	0.62		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	948	348	0	140	0	100	36	2034	525	123	2295	840
V/C Ratio(X)	0.58	0.00	0.00	0.06	0.00	0.26	0.33	0.52	0.02	0.47	0.66	0.96
Avail Cap(c_a), veh/h	2965	1090	0	1057	0	755	198	2295	593	198	2295	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	0.0	25.7	0.0	26.1	29.0	13.7	11.0	26.8	12.9	8.9
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.2	0.0	1.4	5.4	0.2	0.0	2.8	0.7	21.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.1	0.0	0.4	0.2	2.8	0.1	0.8	4.0	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	0.0	25.9	0.0	27.5	34.3	13.9	11.0	29.6	13.6	30.7
LnGrp LOS	C	A	A	C	A	C	C	B	B	C	B	C
Approach Vol, veh/h		549			34			1078			2373	
Approach Delay, s/veh		22.9			27.1			14.1			19.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	27.9		15.2	5.3	31.0		8.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	27.0		35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+I1), s	4.0	11.4		7.9	2.4	29.0		3.1				
Green Ext Time (p_c), s	0.0	5.9		2.0	0.0	0.0		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		18.8	
HCM 6th LOS		B	

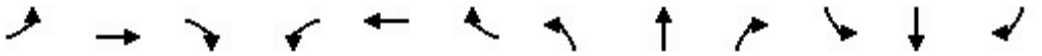
Notes

User approved volume balancing among the lanes for turning movement.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	555	262	1256	326	266	1778
Future Volume (veh/h)	555	262	1256	326	266	1778
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	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	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	566	267	1282	333	271	1814
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1325	372	1813	467	440	2895
Arrive On Green	0.28	0.28	0.36	0.36	0.13	0.57
Sat Flow, veh/h	4785	1343	5274	1315	3292	5274
Grp Volume(v), veh/h	566	267	1282	333	271	1814
Grp Sat Flow(s),veh/h/ln	1595	1343	1702	1315	1646	1702
Q Serve(g_s), s	5.0	9.2	11.1	11.2	4.0	12.2
Cycle Q Clear(g_c), s	5.0	9.2	11.1	11.2	4.0	12.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1325	372	1813	467	440	2895
V/C Ratio(X)	0.43	0.72	0.71	0.71	0.62	0.63
Avail Cap(c_a), veh/h	3270	918	2393	616	578	3689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	16.7	14.2	14.3	20.9	7.5
Incr Delay (d2), s/veh	0.2	2.6	0.6	2.6	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.4	3.2	2.7	1.3	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.4	19.3	14.9	16.9	22.3	7.7
LnGrp LOS	B	B	B	B	C	A
Approach Vol, veh/h	833		1615			2085
Approach Delay, s/veh	16.7		15.3			9.6
Approach LOS	B		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.9	22.2			33.0	18.2
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	9.0	24.0			37.0	35.0
Max Q Clear Time (g_c+I1), s	6.0	13.1			14.2	11.2
Green Ext Time (p_c), s	0.3	5.1			13.3	3.0

Intersection Summary	
HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B



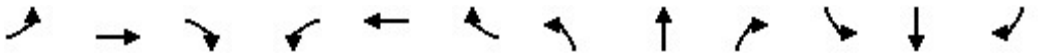
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	284	39	54	201	57	34	21	82	121	16	90
Future Volume (veh/h)	75	284	39	54	201	57	34	21	82	121	16	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	78	296	41	56	209	59	35	22	85	126	17	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	713	269	139	639	241	58	36	141	262	35	223
Arrive On Green	0.10	0.20	0.20	0.08	0.18	0.18	0.14	0.14	0.14	0.17	0.17	0.17
Sat Flow, veh/h	1697	3554	1343	1697	3554	1343	412	259	1000	1578	213	1343
Grp Volume(v), veh/h	78	296	41	56	209	59	142	0	0	143	0	94
Grp Sat Flow(s),veh/h/ln	1697	1777	1343	1697	1777	1343	1670	0	0	1791	0	1343
Q Serve(g_s), s	1.7	2.8	1.0	1.2	2.0	1.5	3.1	0.0	0.0	2.8	0.0	2.4
Cycle Q Clear(g_c), s	1.7	2.8	1.0	1.2	2.0	1.5	3.1	0.0	0.0	2.8	0.0	2.4
Prop In Lane	1.00		1.00	1.00		1.00	0.25		0.60	0.88		1.00
Lane Grp Cap(c), veh/h	174	713	269	139	639	241	236	0	0	297	0	223
V/C Ratio(X)	0.45	0.42	0.15	0.40	0.33	0.24	0.60	0.00	0.00	0.48	0.00	0.42
Avail Cap(c_a), veh/h	392	1278	483	305	1095	414	1029	0	0	1104	0	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	13.6	12.8	17.0	13.9	13.7	15.7	0.0	0.0	14.7	0.0	14.6
Incr Delay (d2), s/veh	1.8	0.4	0.3	1.9	0.3	0.5	2.5	0.0	0.0	1.2	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.8	0.2	0.4	0.6	0.3	1.1	0.0	0.0	1.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	14.0	13.1	18.9	14.2	14.2	18.2	0.0	0.0	15.9	0.0	15.8
LnGrp LOS	B	B	B	B	B	B	B	A	A	B	A	B
Approach Vol, veh/h		415			324			142			237	
Approach Delay, s/veh		14.7			15.0			18.2			15.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.5	7.2	11.8		10.5	8.0	11.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	7.0	14.0		24.0	9.0	12.0				
Max Q Clear Time (g_c+I1), s		5.1	3.2	4.8		4.8	3.7	4.0				
Green Ext Time (p_c), s		0.7	0.0	1.2		1.1	0.1	0.8				

Intersection Summary												
HCM 6th Ctrl Delay			15.5									
HCM 6th LOS			B									

APPENDIX D -

PROJECT COMPLETION CONDITIONS PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	127	37	150	113	350	31	1107	90	207	692	60
Future Volume (veh/h)	62	127	37	150	113	350	31	1107	90	207	692	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1575	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	67	137	40	161	122	376	33	1190	97	223	744	65
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	766	215	269	566	526	79	1492	122	314	1715	149
Arrive On Green	0.07	0.28	0.28	0.09	0.30	0.30	0.05	0.31	0.31	0.10	0.36	0.36
Sat Flow, veh/h	1697	2724	766	2910	1870	1316	1697	4802	391	3292	4776	415
Grp Volume(v), veh/h	67	88	89	161	122	376	33	843	444	223	529	280
Grp Sat Flow(s),veh/h/ln	1697	1777	1713	1455	1870	1316	1697	1702	1789	1646	1702	1787
Q Serve(g_s), s	2.8	2.7	2.9	3.9	3.5	17.5	1.4	16.5	16.5	4.8	8.6	8.7
Cycle Q Clear(g_c), s	2.8	2.7	2.9	3.9	3.5	17.5	1.4	16.5	16.5	4.8	8.6	8.7
Prop In Lane	1.00		0.45	1.00		1.00	1.00		0.22	1.00		0.23
Lane Grp Cap(c), veh/h	121	500	482	269	566	526	79	1058	556	314	1222	642
V/C Ratio(X)	0.55	0.18	0.19	0.60	0.22	0.71	0.42	0.80	0.80	0.71	0.43	0.44
Avail Cap(c_a), veh/h	163	709	684	280	747	653	163	1171	616	362	1222	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	19.7	19.8	31.7	18.9	18.5	33.7	22.9	23.0	31.9	17.7	17.7
Incr Delay (d2), s/veh	3.9	0.2	0.2	3.2	0.2	2.8	3.4	3.6	6.7	5.4	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.0	1.0	1.4	1.4	4.8	0.6	6.2	7.0	2.0	2.9	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	19.9	20.0	34.9	19.1	21.3	37.1	26.6	29.6	37.3	17.9	18.2
LnGrp LOS	D	B	B	C	B	C	D	C	C	D	B	B
Approach Vol, veh/h		244			659			1320			1032	
Approach Delay, s/veh		24.5			24.2			27.9			22.2	
Approach LOS		C			C			C			C	

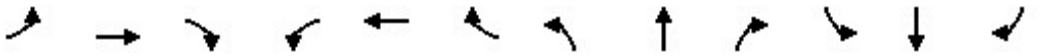
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	26.6	10.7	24.4	7.4	30.1	9.2	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	25.0	7.0	29.0	7.0	26.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	6.8	18.5	5.9	4.9	3.4	10.7	4.8	19.5
Green Ext Time (p_c), s	0.1	3.8	0.1	0.8	0.0	4.1	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	60	1556	9	34	933
Future Volume (veh/h)	25	60	1556	9	34	933
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	26	63	1638	9	36	982
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	186	147	2807	15	98	3535
Arrive On Green	0.11	0.11	0.54	0.54	0.06	0.69
Sat Flow, veh/h	1697	1343	5409	29	1697	5274
Grp Volume(v), veh/h	26	63	1064	583	36	982
Grp Sat Flow(s),veh/h/ln	1697	1343	1702	1865	1697	1702
Q Serve(g_s), s	0.6	1.8	8.5	8.5	0.8	3.0
Cycle Q Clear(g_c), s	0.6	1.8	8.5	8.5	0.8	3.0
Prop In Lane	1.00	1.00		0.02	1.00	
Lane Grp Cap(c), veh/h	186	147	1823	999	98	3535
V/C Ratio(X)	0.14	0.43	0.58	0.58	0.37	0.28
Avail Cap(c_a), veh/h	336	266	2783	1525	294	5565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	16.8	6.3	6.3	18.3	2.4
Incr Delay (d2), s/veh	0.3	2.0	0.3	0.5	2.3	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	0.2	0.6	1.2	1.3	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.6	18.8	6.6	6.9	20.6	2.4
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	89		1647			1018
Approach Delay, s/veh	18.1		6.7			3.1
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.3	25.6			31.9	8.4
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	7.0	33.0			44.0	8.0
Max Q Clear Time (g_c+I1), s	2.8	10.5			5.0	3.8
Green Ext Time (p_c), s	0.0	11.1			7.2	0.1

Intersection Summary		
HCM 6th Ctrl Delay	5.7	
HCM 6th LOS	A	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	740	2	14	6	5	20	15	1631	31	18	936	394
Future Volume (veh/h)	740	2	14	6	5	20	15	1631	31	18	936	394
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	786	0	0	6	5	21	16	1699	32	19	975	410
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1203	442	0	74	61	96	46	2064	533	53	2086	853
Arrive On Green	0.24	0.00	0.00	0.07	0.07	0.07	0.03	0.40	0.40	0.03	0.41	0.41
Sat Flow, veh/h	5091	1870	0	993	828	1295	1697	5106	1319	1697	5106	1312
Grp Volume(v), veh/h	786	0	0	11	0	21	16	1699	32	19	975	410
Grp Sat Flow(s),veh/h/ln	1697	1870	0	1821	0	1295	1697	1702	1319	1697	1702	1312
Q Serve(g_s), s	8.8	0.0	0.0	0.4	0.0	1.0	0.6	18.7	0.9	0.7	8.8	10.2
Cycle Q Clear(g_c), s	8.8	0.0	0.0	0.4	0.0	1.0	0.6	18.7	0.9	0.7	8.8	10.2
Prop In Lane	1.00		0.00	0.55		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1203	442	0	135	0	96	46	2064	533	53	2086	853
V/C Ratio(X)	0.65	0.00	0.00	0.08	0.00	0.22	0.35	0.82	0.06	0.36	0.47	0.48
Avail Cap(c_a), veh/h	2826	1038	0	1011	0	719	188	2187	565	188	2187	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	0.0	27.2	0.0	27.5	30.1	16.8	11.5	29.9	13.6	5.8
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.0	1.1	4.4	2.6	0.0	4.0	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	0.2	0.0	0.3	0.3	6.1	0.2	0.3	2.7	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	0.0	0.0	27.4	0.0	28.6	34.5	19.3	11.5	33.9	13.8	6.2
LnGrp LOS	C	A	A	C	A	C	C	B	B	C	B	A
Approach Vol, veh/h		786			32			1747			1404	
Approach Delay, s/veh		22.3			28.2			19.3			11.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	29.5		18.9	5.7	29.8		8.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	27.0		35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+I1), s	2.7	20.7		10.8	2.6	12.2		3.0				
Green Ext Time (p_c), s	0.0	4.8		3.0	0.0	6.7		0.1				

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

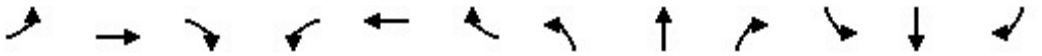
Notes

User approved volume balancing among the lanes for turning movement.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	389	395	1847	540	105	959
Future Volume (veh/h)	389	395	1847	540	105	959
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	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	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	405	411	1924	562	109	999
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1659	466	2090	538	276	2790
Arrive On Green	0.35	0.35	0.41	0.41	0.08	0.55
Sat Flow, veh/h	4785	1343	5274	1315	3292	5274
Grp Volume(v), veh/h	405	411	1924	562	109	999
Grp Sat Flow(s),veh/h/ln	1595	1343	1702	1315	1646	1702
Q Serve(g_s), s	4.5	21.6	26.7	30.6	2.3	8.3
Cycle Q Clear(g_c), s	4.5	21.6	26.7	30.6	2.3	8.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1659	466	2090	538	276	2790
V/C Ratio(X)	0.24	0.88	0.92	1.04	0.40	0.36
Avail Cap(c_a), veh/h	2237	628	2114	544	308	2864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	23.0	21.0	22.1	32.5	9.6
Incr Delay (d2), s/veh	0.1	11.0	7.2	50.8	0.9	0.1
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	7.2	10.1	15.4	0.9	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.5	34.1	28.1	72.9	33.4	9.7
LnGrp LOS	B	C	C	F	C	A
Approach Vol, veh/h	816		2486			1108
Approach Delay, s/veh	25.9		38.3			12.0
Approach LOS	C		D			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.3	34.6			44.9	30.0
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0			42.0	35.0
Max Q Clear Time (g_c+I1), s	4.3	28.7			10.3	23.6
Green Ext Time (p_c), s	0.1	1.9			7.1	2.4

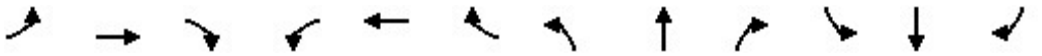
Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	185	12	53	214	462	32	119	56	291	42	357
Future Volume (veh/h)	232	185	12	53	214	462	32	119	56	291	42	357
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1575	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	273	218	14	62	252	544	38	140	66	342	49	420
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	770	291	116	579	219	47	175	82	510	73	437
Arrive On Green	0.12	0.22	0.22	0.07	0.16	0.16	0.17	0.17	0.17	0.33	0.33	0.33
Sat Flow, veh/h	1500	3554	1343	1697	3554	1343	276	1016	479	1567	225	1343
Grp Volume(v), veh/h	273	218	14	62	252	544	244	0	0	391	0	420
Grp Sat Flow(s),veh/h/ln	1500	1777	1343	1697	1777	1343	1770	0	0	1792	0	1343
Q Serve(g_s), s	9.0	3.8	0.6	2.6	4.7	12.0	9.8	0.0	0.0	13.9	0.0	22.6
Cycle Q Clear(g_c), s	9.0	3.8	0.6	2.6	4.7	12.0	9.8	0.0	0.0	13.9	0.0	22.6
Prop In Lane	1.00		1.00	1.00		1.00	0.16		0.27	0.87		1.00
Lane Grp Cap(c), veh/h	183	770	291	116	579	219	305	0	0	584	0	437
V/C Ratio(X)	1.49	0.28	0.05	0.54	0.44	2.49	0.80	0.00	0.00	0.67	0.00	0.96
Avail Cap(c_a), veh/h	183	770	291	161	579	219	577	0	0	584	0	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.3	24.1	22.8	33.2	27.8	30.8	29.3	0.0	0.0	21.4	0.0	24.4
Incr Delay (d2), s/veh	247.3	0.2	0.1	3.8	0.5	682.8	4.8	0.0	0.0	3.0	0.0	32.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	1.4	0.2	1.1	1.9	45.0	4.3	0.0	0.0	6.0	0.0	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	279.6	24.3	22.9	37.0	28.3	713.7	34.1	0.0	0.0	24.4	0.0	57.2
LnGrp LOS	F	C	C	D	C	F	C	A	A	C	A	E
Approach Vol, veh/h		505			858			244			811	
Approach Delay, s/veh		162.3			463.5			34.1			41.4	
Approach LOS		F			F			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.7	9.0	20.0		28.0	13.0	16.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	7.0	14.0		24.0	9.0	12.0				
Max Q Clear Time (g_c+I1), s		11.8	4.6	5.8		24.6	11.0	14.0				
Green Ext Time (p_c), s		1.0	0.0	0.7		0.0	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			215.7									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	95	31	115	73	165	25	887	91	253	1233	51
Future Volume (veh/h)	54	95	31	115	73	165	25	887	91	253	1233	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1575	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	55	97	32	117	74	168	26	905	93	258	1258	52
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	123	447	140	310	380	435	71	1436	147	413	1958	81
Arrive On Green	0.07	0.17	0.17	0.11	0.20	0.20	0.04	0.31	0.31	0.13	0.39	0.39
Sat Flow, veh/h	1697	2641	830	2910	1870	1311	1697	4694	481	3292	5025	208
Grp Volume(v), veh/h	55	64	65	117	74	168	26	655	343	258	852	458
Grp Sat Flow(s),veh/h/ln	1697	1777	1694	1455	1870	1311	1697	1702	1771	1646	1702	1829
Q Serve(g_s), s	1.7	1.7	1.8	2.0	1.8	5.4	0.8	9.0	9.1	4.1	11.1	11.1
Cycle Q Clear(g_c), s	1.7	1.7	1.8	2.0	1.8	5.4	0.8	9.0	9.1	4.1	11.1	11.1
Prop In Lane	1.00		0.49	1.00		1.00	1.00		0.27	1.00		0.11
Lane Grp Cap(c), veh/h	123	301	287	310	380	435	71	1042	542	413	1327	713
V/C Ratio(X)	0.45	0.21	0.23	0.38	0.19	0.39	0.37	0.63	0.63	0.62	0.64	0.64
Avail Cap(c_a), veh/h	217	943	899	373	993	864	217	1495	778	542	1620	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	19.6	19.6	22.7	18.1	14.1	25.5	16.3	16.3	22.7	13.6	13.6
Incr Delay (d2), s/veh	2.5	0.3	0.4	0.8	0.2	0.6	3.1	0.6	1.2	1.5	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.6	0.6	0.6	0.7	1.3	0.3	2.8	3.0	1.4	3.2	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	19.9	20.0	23.5	18.3	14.7	28.6	16.9	17.5	24.2	14.2	14.7
LnGrp LOS	C	B	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		184			359			1024			1568	
Approach Delay, s/veh		22.0			18.3			17.4			16.0	
Approach LOS		C			B			B			B	

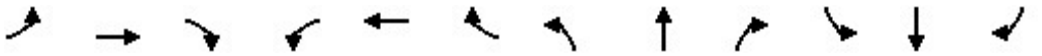
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	20.7	9.8	13.2	6.3	25.3	8.0	15.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	24.0	7.0	29.0	7.0	26.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	6.1	11.1	4.0	3.8	2.8	13.1	3.7	7.4
Green Ext Time (p_c), s	0.2	4.8	0.1	0.6	0.0	6.3	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	20	31	1093	24	40	1518
Future Volume (veh/h)	20	31	1093	24	40	1518
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	20	32	1115	24	41	1549
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	139	110	2357	51	114	3352
Arrive On Green	0.08	0.08	0.46	0.46	0.07	0.66
Sat Flow, veh/h	1697	1343	5312	111	1697	5274
Grp Volume(v), veh/h	20	32	738	401	41	1549
Grp Sat Flow(s),veh/h/ln	1697	1343	1702	1850	1697	1702
Q Serve(g_s), s	0.3	0.7	4.6	4.6	0.7	4.6
Cycle Q Clear(g_c), s	0.3	0.7	4.6	4.6	0.7	4.6
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	139	110	1560	848	114	3352
V/C Ratio(X)	0.14	0.29	0.47	0.47	0.36	0.46
Avail Cap(c_a), veh/h	500	396	3342	1817	500	7186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	13.2	5.7	5.7	13.6	2.6
Incr Delay (d2), s/veh	0.5	1.5	0.2	0.4	1.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.4	0.5	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.5	14.6	5.9	6.1	15.5	2.7
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	52		1139			1590
Approach Delay, s/veh	14.2		6.0			3.0
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.1	18.0			24.1	6.5
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	9.0	30.0			43.0	9.0
Max Q Clear Time (g_c+I1), s	2.7	6.6			6.6	2.7
Green Ext Time (p_c), s	0.0	7.1			13.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	546	3	14	6	4	27	15	1106	13	60	1566	834
Future Volume (veh/h)	546	3	14	6	4	27	15	1106	13	60	1566	834
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	572	0	0	6	4	28	15	1129	13	61	1598	851
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	969	356	0	88	59	105	44	2009	519	125	2255	835
Arrive On Green	0.19	0.00	0.00	0.08	0.08	0.08	0.03	0.39	0.39	0.07	0.44	0.44
Sat Flow, veh/h	5091	1870	0	1090	726	1296	1697	5106	1319	1697	5106	1312
Grp Volume(v), veh/h	572	0	0	10	0	28	15	1129	13	61	1598	851
Grp Sat Flow(s),veh/h/ln	1697	1870	0	1816	0	1296	1697	1702	1319	1697	1702	1312
Q Serve(g_s), s	6.3	0.0	0.0	0.3	0.0	1.2	0.5	10.5	0.4	2.1	15.6	27.0
Cycle Q Clear(g_c), s	6.3	0.0	0.0	0.3	0.0	1.2	0.5	10.5	0.4	2.1	15.6	27.0
Prop In Lane	1.00		0.00	0.60		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	969	356	0	146	0	105	44	2009	519	125	2255	835
V/C Ratio(X)	0.59	0.00	0.00	0.07	0.00	0.27	0.34	0.56	0.03	0.49	0.71	1.02
Avail Cap(c_a), veh/h	2914	1071	0	1039	0	742	194	2255	582	194	2255	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	0.0	0.0	26.0	0.0	26.4	29.3	14.4	11.4	27.2	13.9	9.1
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.2	0.0	1.4	4.6	0.2	0.0	2.9	1.0	36.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	0.1	0.0	0.4	0.2	3.2	0.1	0.9	4.6	19.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	0.0	26.2	0.0	27.8	33.9	14.7	11.4	30.1	14.9	45.1
LnGrp LOS	C	A	A	C	A	C	C	B	B	C	B	F
Approach Vol, veh/h		572			38			1157			2510	
Approach Delay, s/veh		23.2			27.3			14.9			25.5	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	28.1		15.6	5.6	31.0		8.9				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	27.0		35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+I1), s	4.1	12.5		8.3	2.5	29.0		3.2				
Green Ext Time (p_c), s	0.0	6.1		2.1	0.0	0.0		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		22.4	
HCM 6th LOS		C	

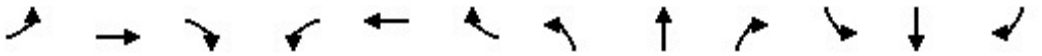
Notes

User approved volume balancing among the lanes for turning movement.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	578	273	1331	347	277	1889
Future Volume (veh/h)	578	273	1331	347	277	1889
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	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	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	590	279	1358	354	283	1928
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1358	381	1850	477	425	2892
Arrive On Green	0.28	0.28	0.36	0.36	0.13	0.57
Sat Flow, veh/h	4785	1343	5274	1315	3292	5274
Grp Volume(v), veh/h	590	279	1358	354	283	1928
Grp Sat Flow(s),veh/h/ln	1595	1343	1702	1315	1646	1702
Q Serve(g_s), s	5.4	10.0	12.3	12.5	4.4	14.0
Cycle Q Clear(g_c), s	5.4	10.0	12.3	12.5	4.4	14.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1358	381	1850	477	425	2892
V/C Ratio(X)	0.43	0.73	0.73	0.74	0.67	0.67
Avail Cap(c_a), veh/h	3136	880	2295	591	555	3538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	17.3	14.8	14.9	22.2	8.1
Incr Delay (d2), s/veh	0.2	2.7	1.0	3.9	1.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.7	3.7	3.3	1.5	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.8	20.0	15.7	18.8	24.1	8.4
LnGrp LOS	B	C	B	B	C	A
Approach Vol, veh/h	869		1712			2211
Approach Delay, s/veh	17.2		16.4			10.4
Approach LOS	B		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.9	23.4			34.2	19.2
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	9.0	24.0			37.0	35.0
Max Q Clear Time (g_c+I1), s	6.4	14.3			16.0	12.0
Green Ext Time (p_c), s	0.2	5.0			13.5	3.1

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	306	41	57	237	60	36	22	86	126	17	94
Future Volume (veh/h)	106	306	41	57	237	60	36	22	86	126	17	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1575	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	110	319	43	59	247	62	38	23	90	131	18	98
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	758	286	143	619	234	60	36	141	257	35	219
Arrive On Green	0.12	0.21	0.21	0.08	0.17	0.17	0.14	0.14	0.14	0.16	0.16	0.16
Sat Flow, veh/h	1500	3554	1343	1697	3554	1343	420	254	995	1575	216	1343
Grp Volume(v), veh/h	110	319	43	59	247	62	151	0	0	149	0	98
Grp Sat Flow(s),veh/h/ln	1500	1777	1343	1697	1777	1343	1670	0	0	1792	0	1343
Q Serve(g_s), s	2.8	3.1	1.0	1.3	2.5	1.6	3.4	0.0	0.0	3.1	0.0	2.6
Cycle Q Clear(g_c), s	2.8	3.1	1.0	1.3	2.5	1.6	3.4	0.0	0.0	3.1	0.0	2.6
Prop In Lane	1.00		1.00	1.00		1.00	0.25		0.60	0.88		1.00
Lane Grp Cap(c), veh/h	185	758	286	143	619	234	237	0	0	292	0	219
V/C Ratio(X)	0.60	0.42	0.15	0.41	0.40	0.27	0.64	0.00	0.00	0.51	0.00	0.45
Avail Cap(c_a), veh/h	373	1326	501	295	1060	401	955	0	0	1069	0	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	13.7	12.9	17.5	14.7	14.4	16.3	0.0	0.0	15.4	0.0	15.2
Incr Delay (d2), s/veh	3.0	0.4	0.2	1.9	0.4	0.6	2.8	0.0	0.0	1.4	0.0	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	0.9	0.9	0.2	0.5	0.8	0.4	1.3	0.0	0.0	1.2	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	14.0	13.1	19.4	15.2	15.0	19.1	0.0	0.0	16.7	0.0	16.6
LnGrp LOS	B	B	B	B	B	B	B	A	A	B	A	B
Approach Vol, veh/h		472			368			151			247	
Approach Delay, s/veh		15.3			15.8			19.1			16.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.7	7.4	12.6		10.6	9.0	11.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		23.0	7.0	15.0		24.0	10.0	12.0				
Max Q Clear Time (g_c+I1), s		5.4	3.3	5.1		5.1	4.8	4.5				
Green Ext Time (p_c), s		0.7	0.0	1.3		1.1	0.1	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									

APPENDIX E -

CUMULATIVE PROJECT TRIP DISTRIBUTION

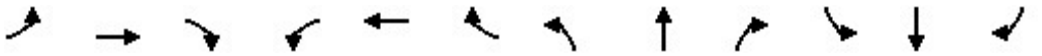
LEGEND # Intersection

INTEGRATED ENGINEERING GROUP
TRANSPORTATION PLANNING AND ENGINEERING

Crossing at La Quinta
Project Study Area and Trip Distribution
Figure 1-2

APPENDIX F -

CUMULATIVE CONDITIONS PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	128	37	154	117	352	31	1119	90	212	692	60
Future Volume (veh/h)	62	128	37	154	117	352	31	1119	90	212	692	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1575	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	67	138	40	166	126	378	33	1203	97	228	744	65
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	770	215	269	567	527	79	1496	121	313	1717	149
Arrive On Green	0.07	0.28	0.28	0.09	0.30	0.30	0.05	0.31	0.31	0.09	0.36	0.36
Sat Flow, veh/h	1697	2729	762	2910	1870	1316	1697	4807	387	3292	4776	415
Grp Volume(v), veh/h	67	88	90	166	126	378	33	852	448	228	529	280
Grp Sat Flow(s),veh/h/ln	1697	1777	1714	1455	1870	1316	1697	1702	1790	1646	1702	1787
Q Serve(g_s), s	2.8	2.7	2.9	4.0	3.7	17.7	1.4	16.8	16.8	4.9	8.6	8.7
Cycle Q Clear(g_c), s	2.8	2.7	2.9	4.0	3.7	17.7	1.4	16.8	16.8	4.9	8.6	8.7
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.22	1.00		0.23
Lane Grp Cap(c), veh/h	121	501	483	269	567	527	79	1060	557	313	1224	642
V/C Ratio(X)	0.55	0.18	0.19	0.62	0.22	0.72	0.42	0.80	0.80	0.73	0.43	0.44
Avail Cap(c_a), veh/h	163	706	681	279	743	650	163	1165	613	361	1224	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	19.8	19.9	31.9	19.0	18.5	33.8	23.1	23.1	32.1	17.7	17.8
Incr Delay (d2), s/veh	3.9	0.2	0.2	3.8	0.2	2.9	3.4	3.9	7.1	6.3	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.0	1.0	1.4	1.4	4.9	0.6	6.3	7.2	2.1	2.9	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	20.0	20.0	35.7	19.2	21.5	37.3	27.0	30.2	38.4	18.0	18.2
LnGrp LOS	D	B	C	D	B	C	D	C	C	D	B	B
Approach Vol, veh/h		245			670			1333			1037	
Approach Delay, s/veh		24.6			24.6			28.3			22.5	
Approach LOS		C			C			C			C	

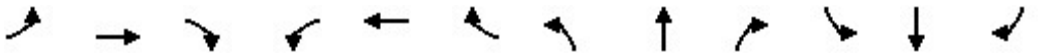
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	26.7	10.8	24.6	7.4	30.2	9.2	26.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	25.0	7.0	29.0	7.0	26.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	6.9	18.8	6.0	4.9	3.4	10.7	4.8	19.7
Green Ext Time (p_c), s	0.1	3.7	0.0	0.8	0.0	4.1	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	25.4
HCM 6th LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	60	1570	9	34	938
Future Volume (veh/h)	25	60	1570	9	34	938
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	26	63	1653	9	36	987
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	185	147	2818	15	98	3543
Arrive On Green	0.11	0.11	0.54	0.54	0.06	0.69
Sat Flow, veh/h	1697	1343	5409	29	1697	5274
Grp Volume(v), veh/h	26	63	1074	588	36	987
Grp Sat Flow(s),veh/h/ln	1697	1343	1702	1865	1697	1702
Q Serve(g_s), s	0.6	1.8	8.6	8.6	0.8	3.0
Cycle Q Clear(g_c), s	0.6	1.8	8.6	8.6	0.8	3.0
Prop In Lane	1.00	1.00		0.02	1.00	
Lane Grp Cap(c), veh/h	185	147	1831	1003	98	3543
V/C Ratio(X)	0.14	0.43	0.59	0.59	0.37	0.28
Avail Cap(c_a), veh/h	334	265	2766	1516	292	5532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.4	16.9	6.3	6.3	18.4	2.4
Incr Delay (d2), s/veh	0.3	2.0	0.3	0.5	2.3	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	0.2	0.6	1.2	1.4	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.7	18.9	6.6	6.9	20.7	2.4
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	89		1662			1023
Approach Delay, s/veh	18.2		6.7			3.0
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.3	25.8			32.2	8.4
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	7.0	33.0			44.0	8.0
Max Q Clear Time (g_c+I1), s	2.8	10.6			5.0	3.8
Green Ext Time (p_c), s	0.0	11.2			7.3	0.1

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	740	2	15	6	5	20	17	1643	31	18	940	394
Future Volume (veh/h)	740	2	15	6	5	20	17	1643	31	18	940	394
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	787	0	0	6	5	21	18	1711	32	19	979	410
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1203	442	0	74	61	96	51	2067	534	53	2074	850
Arrive On Green	0.24	0.00	0.00	0.07	0.07	0.07	0.03	0.40	0.40	0.03	0.41	0.41
Sat Flow, veh/h	5091	1870	0	993	828	1295	1697	5106	1319	1697	5106	1312
Grp Volume(v), veh/h	787	0	0	11	0	21	18	1711	32	19	979	410
Grp Sat Flow(s),veh/h/ln	1697	1870	0	1821	0	1295	1697	1702	1319	1697	1702	1312
Q Serve(g_s), s	8.8	0.0	0.0	0.4	0.0	1.0	0.7	19.0	0.9	0.7	8.9	10.3
Cycle Q Clear(g_c), s	8.8	0.0	0.0	0.4	0.0	1.0	0.7	19.0	0.9	0.7	8.9	10.3
Prop In Lane	1.00		0.00	0.55		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1203	442	0	135	0	96	51	2067	534	53	2074	850
V/C Ratio(X)	0.65	0.00	0.00	0.08	0.00	0.22	0.35	0.83	0.06	0.36	0.47	0.48
Avail Cap(c_a), veh/h	2820	1036	0	1009	0	717	188	2182	564	188	2182	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	0.0	27.3	0.0	27.5	30.0	16.8	11.5	30.0	13.8	5.9
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.0	1.1	4.1	2.7	0.0	4.0	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	0.2	0.0	0.3	0.3	6.2	0.2	0.3	2.7	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	0.0	0.0	27.5	0.0	28.7	34.2	19.5	11.5	34.0	13.9	6.3
LnGrp LOS	C	A	A	C	A	C	C	B	B	C	B	A
Approach Vol, veh/h		787			32			1761			1408	
Approach Delay, s/veh		22.4			28.3			19.5			12.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	29.6		18.9	5.9	29.7		8.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	27.0		35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+I1), s	2.7	21.0		10.8	2.7	12.3		3.0				
Green Ext Time (p_c), s	0.0	4.6		3.0	0.0	6.7		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

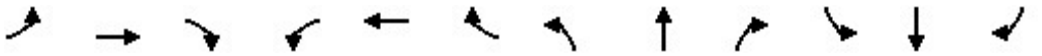
Notes

User approved volume balancing among the lanes for turning movement.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	390	395	1855	544	105	961
Future Volume (veh/h)	390	395	1855	544	105	961
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	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	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	406	411	1932	567	109	1001
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1657	465	2099	541	274	2796
Arrive On Green	0.35	0.35	0.41	0.41	0.08	0.55
Sat Flow, veh/h	4785	1343	5274	1315	3292	5274
Grp Volume(v), veh/h	406	411	1932	567	109	1001
Grp Sat Flow(s),veh/h/ln	1595	1343	1702	1315	1646	1702
Q Serve(g_s), s	4.6	21.7	27.0	31.0	2.4	8.3
Cycle Q Clear(g_c), s	4.6	21.7	27.0	31.0	2.4	8.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1657	465	2099	541	274	2796
V/C Ratio(X)	0.24	0.88	0.92	1.05	0.40	0.36
Avail Cap(c_a), veh/h	2221	623	2099	541	306	2844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	23.2	21.0	22.2	32.8	9.6
Incr Delay (d2), s/veh	0.1	11.3	7.2	52.1	0.9	0.1
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	7.3	10.3	15.7	0.9	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.7	34.5	28.2	74.3	33.7	9.7
LnGrp LOS	B	C	C	F	C	A
Approach Vol, veh/h	817		2499			1110
Approach Delay, s/veh	26.1		38.7			12.0
Approach LOS	C		D			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.3	35.0			45.3	30.1
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0			42.0	35.0
Max Q Clear Time (g_c+I1), s	4.4	33.0			10.3	23.7
Green Ext Time (p_c), s	0.1	0.0			7.1	2.4

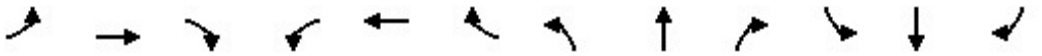
Intersection Summary	
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	186	12	53	215	462	32	119	56	291	42	357
Future Volume (veh/h)	232	186	12	53	215	462	32	119	56	291	42	357
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1575	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	273	219	14	62	253	544	38	140	66	342	49	420
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	770	291	116	579	219	47	175	82	510	73	437
Arrive On Green	0.12	0.22	0.22	0.07	0.16	0.16	0.17	0.17	0.17	0.33	0.33	0.33
Sat Flow, veh/h	1500	3554	1343	1697	3554	1343	276	1016	479	1567	225	1343
Grp Volume(v), veh/h	273	219	14	62	253	544	244	0	0	391	0	420
Grp Sat Flow(s),veh/h/ln	1500	1777	1343	1697	1777	1343	1770	0	0	1792	0	1343
Q Serve(g_s), s	9.0	3.8	0.6	2.6	4.7	12.0	9.8	0.0	0.0	13.9	0.0	22.6
Cycle Q Clear(g_c), s	9.0	3.8	0.6	2.6	4.7	12.0	9.8	0.0	0.0	13.9	0.0	22.6
Prop In Lane	1.00		1.00	1.00		1.00	0.16		0.27	0.87		1.00
Lane Grp Cap(c), veh/h	183	770	291	116	579	219	305	0	0	584	0	437
V/C Ratio(X)	1.49	0.28	0.05	0.54	0.44	2.49	0.80	0.00	0.00	0.67	0.00	0.96
Avail Cap(c_a), veh/h	183	770	291	161	579	219	577	0	0	584	0	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.3	24.1	22.8	33.2	27.8	30.8	29.3	0.0	0.0	21.4	0.0	24.4
Incr Delay (d2), s/veh	247.3	0.2	0.1	3.8	0.5	682.8	4.8	0.0	0.0	3.0	0.0	32.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	1.5	0.2	1.1	1.9	45.0	4.3	0.0	0.0	6.0	0.0	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	279.6	24.3	22.9	37.0	28.3	713.7	34.1	0.0	0.0	24.4	0.0	57.2
LnGrp LOS	F	C	C	D	C	F	C	A	A	C	A	E
Approach Vol, veh/h		506			859			244			811	
Approach Delay, s/veh		162.0			463.0			34.1			41.4	
Approach LOS		F			F			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.7	9.0	20.0		28.0	13.0	16.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	7.0	14.0		24.0	9.0	12.0				
Max Q Clear Time (g_c+I1), s		11.8	4.6	5.8		24.6	11.0	14.0				
Green Ext Time (p_c), s		1.0	0.0	0.7		0.0	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			215.5									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	99	31	117	75	166	25	894	91	267	1233	51
Future Volume (veh/h)	54	99	31	117	75	166	25	894	91	267	1233	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1575	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	55	101	32	119	77	169	26	912	93	272	1258	52
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	123	451	136	311	380	435	71	1441	146	414	1963	81
Arrive On Green	0.07	0.17	0.17	0.11	0.20	0.20	0.04	0.31	0.31	0.13	0.39	0.39
Sat Flow, veh/h	1697	2669	807	2910	1870	1311	1697	4698	477	3292	5025	208
Grp Volume(v), veh/h	55	66	67	119	77	169	26	660	345	272	852	458
Grp Sat Flow(s),veh/h/ln	1697	1777	1699	1455	1870	1311	1697	1702	1771	1646	1702	1829
Q Serve(g_s), s	1.7	1.7	1.9	2.1	1.9	5.4	0.8	9.1	9.2	4.3	11.2	11.2
Cycle Q Clear(g_c), s	1.7	1.7	1.9	2.1	1.9	5.4	0.8	9.1	9.2	4.3	11.2	11.2
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.27	1.00		0.11
Lane Grp Cap(c), veh/h	123	300	287	311	380	435	71	1044	543	414	1330	714
V/C Ratio(X)	0.45	0.22	0.23	0.38	0.20	0.39	0.37	0.63	0.64	0.66	0.64	0.64
Avail Cap(c_a), veh/h	217	940	899	372	989	862	217	1490	775	540	1614	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	19.7	19.7	22.8	18.1	14.2	25.6	16.3	16.4	22.8	13.6	13.6
Incr Delay (d2), s/veh	2.5	0.4	0.4	0.8	0.3	0.6	3.1	0.6	1.2	1.8	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.6	0.7	0.6	0.7	1.3	0.3	2.9	3.1	1.5	3.2	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	20.0	20.1	23.6	18.4	14.7	28.7	17.0	17.6	24.7	14.2	14.7
LnGrp LOS	C	C	C	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		188			365			1031			1582	
Approach Delay, s/veh		22.1			18.4			17.5			16.2	
Approach LOS		C			B			B			B	

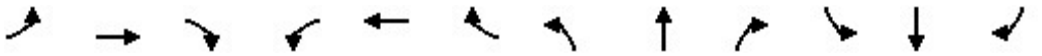
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	20.8	9.9	13.3	6.3	25.4	8.0	15.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	24.0	7.0	29.0	7.0	26.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	6.3	11.2	4.1	3.9	2.8	13.2	3.7	7.4
Green Ext Time (p_c), s	0.2	4.8	0.1	0.6	0.0	6.3	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	20	31	1101	24	40	1532
Future Volume (veh/h)	20	31	1101	24	40	1532
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	20	32	1123	24	41	1563
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	138	110	2375	51	114	3364
Arrive On Green	0.08	0.08	0.46	0.46	0.07	0.66
Sat Flow, veh/h	1697	1343	5313	110	1697	5274
Grp Volume(v), veh/h	20	32	743	404	41	1563
Grp Sat Flow(s),veh/h/ln	1697	1343	1702	1851	1697	1702
Q Serve(g_s), s	0.3	0.7	4.6	4.6	0.7	4.6
Cycle Q Clear(g_c), s	0.3	0.7	4.6	4.6	0.7	4.6
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	138	110	1572	854	114	3364
V/C Ratio(X)	0.14	0.29	0.47	0.47	0.36	0.46
Avail Cap(c_a), veh/h	496	392	3314	1802	496	7126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	13.3	5.7	5.7	13.7	2.6
Incr Delay (d2), s/veh	0.5	1.5	0.2	0.4	1.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.4	0.5	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.6	14.8	5.9	6.1	15.6	2.7
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	52		1147			1604
Approach Delay, s/veh	14.3		6.0			3.0
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.1	18.2			24.3	6.5
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	9.0	30.0			43.0	9.0
Max Q Clear Time (g_c+I1), s	2.7	6.6			6.6	2.7
Green Ext Time (p_c), s	0.0	7.2			13.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.4
HCM 6th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	546	3	16	6	4	27	16	1113	13	60	1578	834
Future Volume (veh/h)	546	3	16	6	4	27	16	1113	13	60	1578	834
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1782	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	574	0	0	6	4	28	16	1136	13	61	1610	851
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	970	357	0	88	59	105	46	2012	520	125	2249	834
Arrive On Green	0.19	0.00	0.00	0.08	0.08	0.08	0.03	0.39	0.39	0.07	0.44	0.44
Sat Flow, veh/h	5091	1870	0	1090	726	1296	1697	5106	1319	1697	5106	1312
Grp Volume(v), veh/h	574	0	0	10	0	28	16	1136	13	61	1610	851
Grp Sat Flow(s),veh/h/ln	1697	1870	0	1816	0	1296	1697	1702	1319	1697	1702	1312
Q Serve(g_s), s	6.3	0.0	0.0	0.3	0.0	1.2	0.6	10.6	0.4	2.1	15.8	27.0
Cycle Q Clear(g_c), s	6.3	0.0	0.0	0.3	0.0	1.2	0.6	10.6	0.4	2.1	15.8	27.0
Prop In Lane	1.00		0.00	0.60		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	970	357	0	146	0	105	46	2012	520	125	2249	834
V/C Ratio(X)	0.59	0.00	0.00	0.07	0.00	0.27	0.35	0.56	0.03	0.49	0.72	1.02
Avail Cap(c_a), veh/h	2907	1068	0	1037	0	740	194	2249	581	194	2249	834
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	0.0	0.0	26.0	0.0	26.5	29.3	14.5	11.4	27.3	14.0	9.2
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.2	0.0	1.4	4.4	0.3	0.0	2.9	1.1	36.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	0.1	0.0	0.4	0.3	3.2	0.1	0.9	4.7	19.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	0.0	26.2	0.0	27.8	33.7	14.7	11.4	30.2	15.1	45.5
LnGrp LOS	C	A	A	C	A	C	C	B	B	C	B	F
Approach Vol, veh/h		574			38			1165			2522	
Approach Delay, s/veh		23.2			27.4			15.0			25.8	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	28.1		15.7	5.7	31.0		8.9				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.0	27.0		35.0	7.0	27.0		35.0				
Max Q Clear Time (g_c+I1), s	4.1	12.6		8.3	2.6	29.0		3.2				
Green Ext Time (p_c), s	0.0	6.2		2.1	0.0	0.0		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		22.5	
HCM 6th LOS		C	

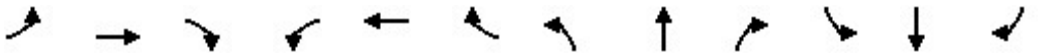
Notes

User approved volume balancing among the lanes for turning movement.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	582	273	1336	349	277	1897
Future Volume (veh/h)	582	273	1336	349	277	1897
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	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	1782	1585	1870	1585	1782	1870
Adj Flow Rate, veh/h	594	279	1363	356	283	1936
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1345	378	1927	496	411	2933
Arrive On Green	0.28	0.28	0.38	0.38	0.12	0.57
Sat Flow, veh/h	4785	1343	5274	1315	3292	5274
Grp Volume(v), veh/h	594	279	1363	356	283	1936
Grp Sat Flow(s),veh/h/ln	1595	1343	1702	1315	1646	1702
Q Serve(g_s), s	5.6	10.4	12.6	12.8	4.6	14.4
Cycle Q Clear(g_c), s	5.6	10.4	12.6	12.8	4.6	14.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1345	378	1927	496	411	2933
V/C Ratio(X)	0.44	0.74	0.71	0.72	0.69	0.66
Avail Cap(c_a), veh/h	3023	849	2212	570	535	3410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	18.1	14.6	14.7	23.2	8.1
Incr Delay (d2), s/veh	0.2	2.8	0.9	3.7	2.5	0.4
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	0.3	3.8	3.3	1.6	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.6	20.9	15.5	18.4	25.7	8.5
LnGrp LOS	B	C	B	B	C	A
Approach Vol, veh/h	873		1719			2219
Approach Delay, s/veh	18.0		16.1			10.7
Approach LOS	B		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.9	24.9			35.8	19.6
Change Period (Y+Rc), s	4.0	4.0			4.0	4.0
Max Green Setting (Gmax), s	9.0	24.0			37.0	35.0
Max Q Clear Time (g_c+I1), s	6.6	14.8			16.4	12.4
Green Ext Time (p_c), s	0.2	6.1			13.4	3.1

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	310	41	57	239	60	36	22	86	126	17	94
Future Volume (veh/h)	106	310	41	57	239	60	36	22	86	126	17	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1575	1870	1585	1782	1870	1585	1782	1870	1585	1782	1870	1585
Adj Flow Rate, veh/h	110	323	43	59	249	62	38	23	90	131	18	98
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	758	286	143	619	234	60	36	141	257	35	219
Arrive On Green	0.12	0.21	0.21	0.08	0.17	0.17	0.14	0.14	0.14	0.16	0.16	0.16
Sat Flow, veh/h	1500	3554	1343	1697	3554	1343	420	254	995	1575	216	1343
Grp Volume(v), veh/h	110	323	43	59	249	62	151	0	0	149	0	98
Grp Sat Flow(s),veh/h/ln	1500	1777	1343	1697	1777	1343	1670	0	0	1792	0	1343
Q Serve(g_s), s	2.8	3.2	1.0	1.3	2.5	1.6	3.4	0.0	0.0	3.1	0.0	2.6
Cycle Q Clear(g_c), s	2.8	3.2	1.0	1.3	2.5	1.6	3.4	0.0	0.0	3.1	0.0	2.6
Prop In Lane	1.00		1.00	1.00		1.00	0.25		0.60	0.88		1.00
Lane Grp Cap(c), veh/h	185	758	286	143	619	234	237	0	0	292	0	219
V/C Ratio(X)	0.60	0.43	0.15	0.41	0.40	0.27	0.64	0.00	0.00	0.51	0.00	0.45
Avail Cap(c_a), veh/h	373	1326	501	295	1060	401	955	0	0	1069	0	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	13.7	12.9	17.5	14.7	14.4	16.3	0.0	0.0	15.4	0.0	15.2
Incr Delay (d2), s/veh	3.0	0.4	0.2	1.9	0.4	0.6	2.8	0.0	0.0	1.4	0.0	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	0.9	0.9	0.2	0.5	0.8	0.4	1.3	0.0	0.0	1.2	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	14.1	13.1	19.4	15.2	15.0	19.1	0.0	0.0	16.7	0.0	16.6
LnGrp LOS	B	B	B	B	B	B	B	A	A	B	A	B
Approach Vol, veh/h		476			370			151			247	
Approach Delay, s/veh		15.3			15.8			19.1			16.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.7	7.4	12.6		10.6	9.0	11.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		23.0	7.0	15.0		24.0	10.0	12.0				
Max Q Clear Time (g_c+I1), s		5.4	3.3	5.2		5.1	4.8	4.5				
Green Ext Time (p_c), s		0.7	0.0	1.3		1.1	0.1	0.9				

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

APPENDIX G -

INTERSECTION QUEUE ANALYSIS

Intersection: 1: Washington Street & Avenue 50

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	L	T	R	L	T	T	TR	L
Maximum Queue (ft)	91	118	90	85	101	114	171	67	308	270	221	140
Average Queue (ft)	37	54	29	29	52	55	83	27	195	157	110	68
95th Queue (ft)	76	98	68	67	84	97	146	59	282	253	195	119
Link Distance (ft)		711	711			358			482	482	482	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	110			115	115		115	250				290
Storage Blk Time (%)	0	0		0	0	0	3		2			
Queuing Penalty (veh)	0	0		0	0	2	6		1			

Intersection: 1: Washington Street & Avenue 50

Movement	SB	SB	SB	SB
Directions Served	L	T	T	TR
Maximum Queue (ft)	133	159	193	232
Average Queue (ft)	63	67	83	102
95th Queue (ft)	111	137	165	199
Link Distance (ft)		331	331	331
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	290			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Park Avenue/Moon River Drive & Avenue 50

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LTR	LT	R
Maximum Queue (ft)	230	771	639	38	95	502	639	165	208	257	342
Average Queue (ft)	209	447	107	6	42	161	316	152	103	163	95
95th Queue (ft)	280	977	412	27	79	479	761	194	175	254	233
Link Distance (ft)		1457	1457			929	929		606		435
Upstream Blk Time (%)						0	8				0
Queuing Penalty (veh)						0	0				0
Storage Bay Dist (ft)	140			100	160			105		200	
Storage Blk Time (%)	76		0			1	0	65		6	0
Queuing Penalty (veh)	72		0			1	1	74		23	1

Zone Summary

Zone wide Queuing Penalty: 183

Intersection: 1: Washington Street & Avenue 50

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	L	T	R	L	T	T	TR	L
Maximum Queue (ft)	81	88	67	64	78	99	93	66	248	230	166	117
Average Queue (ft)	30	38	28	19	42	41	40	21	146	100	73	55
95th Queue (ft)	66	75	61	50	71	82	73	53	224	195	135	101
Link Distance (ft)		711	711			358			482	482	482	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	110			115	115		115	250				290
Storage Blk Time (%)	0	0				0	0		0			
Queuing Penalty (veh)	0	0				0	0		0			

Intersection: 1: Washington Street & Avenue 50

Movement	SB	SB	SB	SB
Directions Served	L	T	T	TR
Maximum Queue (ft)	133	202	237	266
Average Queue (ft)	71	88	111	131
95th Queue (ft)	116	173	214	244
Link Distance (ft)		331	331	331
Upstream Blk Time (%)				0
Queuing Penalty (veh)				0
Storage Bay Dist (ft)	290			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Park Avenue/Moon River Drive & Avenue 50

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LTR	LT	R
Maximum Queue (ft)	91	96	118	57	81	146	82	50	114	127	62
Average Queue (ft)	41	35	48	11	32	62	13	21	45	56	22
95th Queue (ft)	78	74	93	35	66	115	50	42	88	106	47
Link Distance (ft)		1457	1457			929	929		606		435
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	140			100	160			105		200	
Storage Blk Time (%)	0		0			0	0			0	
Queuing Penalty (veh)	0		0			0	0			0	

Zone Summary

Zone wide Queuing Penalty: 1

Intersection: 1: Washington Street & Avenue 50

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	UL	L	T	R	L	T	T	TR	L
Maximum Queue (ft)	99	130	82	85	112	131	202	73	345	302	261	141
Average Queue (ft)	45	52	31	38	59	60	91	28	209	173	126	75
95th Queue (ft)	87	100	68	75	94	109	160	64	304	271	217	126
Link Distance (ft)		711	711			358			482	482	482	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	110			115	115		115	250				290
Storage Blk Time (%)	0	0		0	0	1	4		3			
Queuing Penalty (veh)	0	0		0	1	4	10		1			

Intersection: 1: Washington Street & Avenue 50

Movement	SB	SB	SB	SB
Directions Served	L	T	T	TR
Maximum Queue (ft)	146	158	188	230
Average Queue (ft)	67	69	88	106
95th Queue (ft)	118	138	176	206
Link Distance (ft)		331	331	331
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	290			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Park Avenue/Moon River Drive & Avenue 50

Movement	EB	EB	EB	EB	B20	WB	WB	WB	WB	NB	SB	SB
Directions Served	UL	T	T	R	T	L	T	T	R	LTR	LT	R
Maximum Queue (ft)	230	1291	1008	21	33	98	504	713	165	196	259	381
Average Queue (ft)	226	828	161	4	3	45	155	420	157	99	173	113
95th Queue (ft)	254	1489	621	16	38	85	538	999	190	169	264	276
Link Distance (ft)		1457	1457		1173		2054	2054		606		435
Upstream Blk Time (%)		3										0
Queuing Penalty (veh)		7										0
Storage Bay Dist (ft)	140			100		160			105		200	
Storage Blk Time (%)	91	0	0				1	0	74		6	0
Queuing Penalty (veh)	98	0	0				0	2	93		26	1

Zone Summary

Zone wide Queuing Penalty: 246

Intersection: 1: Washington Street & Avenue 50

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	L	T	R	L	T	T	TR	L
Maximum Queue (ft)	91	96	92	87	92	100	100	68	276	246	214	137
Average Queue (ft)	41	41	29	27	48	44	44	21	158	113	90	68
95th Queue (ft)	80	82	69	66	81	82	79	55	243	212	170	118
Link Distance (ft)		711	711			358			482	482	482	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	110			115	115		115	250				290
Storage Blk Time (%)	0	0		0	0	0	0		1			
Queuing Penalty (veh)	0	0		0	0	0	0		0			

Intersection: 1: Washington Street & Avenue 50

Movement	SB	SB	SB	SB
Directions Served	L	T	T	TR
Maximum Queue (ft)	164	247	290	313
Average Queue (ft)	83	108	132	153
95th Queue (ft)	138	209	250	277
Link Distance (ft)		331	331	331
Upstream Blk Time (%)		0	0	0
Queuing Penalty (veh)		0	0	1
Storage Bay Dist (ft)	290			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 5: Park Avenue/Moon River Drive & Avenue 50

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LTR	LT	R
Maximum Queue (ft)	125	105	110	55	80	170	123	65	130	130	56
Average Queue (ft)	54	40	52	13	38	80	24	22	53	59	22
95th Queue (ft)	101	87	97	37	72	141	79	47	102	106	44
Link Distance (ft)		1457	1457			929	929		606		435
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	140			100	160			105		200	
Storage Blk Time (%)	0		1			0	0	0			
Queuing Penalty (veh)	0		0			0	0	0			

Zone Summary

Zone wide Queuing Penalty: 2

Intersection: 1: Washington Street & Avenue 50

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	UL	L	T	R	L	T	T	TR	L
Maximum Queue (ft)	102	115	103	111	110	129	170	70	323	283	251	135
Average Queue (ft)	43	56	32	44	61	63	89	28	205	165	129	74
95th Queue (ft)	83	100	73	88	97	113	151	62	290	258	218	122
Link Distance (ft)		711	711			358			482	482	482	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	110			115	115		115	250				290
Storage Blk Time (%)	0	1		0	1	1	4		2			
Queuing Penalty (veh)	0	0		2	3	5	11		1			

Intersection: 1: Washington Street & Avenue 50

Movement	SB	SB	SB	SB
Directions Served	L	T	T	TR
Maximum Queue (ft)	132	163	210	226
Average Queue (ft)	71	69	91	106
95th Queue (ft)	119	141	178	204
Link Distance (ft)		331	331	331
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	290			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Park Avenue/Moon River Drive & Avenue 50

Movement	EB	EB	EB	EB	B20	WB	WB	WB	WB	NB	SB	SB
Directions Served	UL	T	T	R	T	L	T	T	R	LTR	LT	R
Maximum Queue (ft)	230	1256	834	24	16	96	556	874	165	231	259	400
Average Queue (ft)	224	813	156	5	1	44	155	523	159	111	176	105
95th Queue (ft)	262	1491	618	19	15	82	502	1075	191	192	269	262
Link Distance (ft)		1457	1457		1173		2054	2054		606		435
Upstream Blk Time (%)		4	0									0
Queuing Penalty (veh)		9	0									0
Storage Bay Dist (ft)	140			100		160			105		200	
Storage Blk Time (%)	90	0	0				1	0	79		7	0
Queuing Penalty (veh)	100	0	0				0	1	100		29	1

Zone Summary

Zone wide Queuing Penalty: 261

Intersection: 1: Washington Street & Avenue 50

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	L	T	R	L	T	T	TR	L
Maximum Queue (ft)	84	95	78	87	98	118	110	67	259	240	191	150
Average Queue (ft)	37	41	28	30	49	44	45	22	160	118	87	77
95th Queue (ft)	73	80	64	67	79	85	82	56	241	215	159	132
Link Distance (ft)		711	711			358			482	482	482	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	110			115	115		115	250				290
Storage Blk Time (%)	0	0		0	0	0	0		0			
Queuing Penalty (veh)	0	0		0	0	1	0		0			

Intersection: 1: Washington Street & Avenue 50

Movement	SB	SB	SB	SB
Directions Served	L	T	T	TR
Maximum Queue (ft)	155	246	291	296
Average Queue (ft)	91	108	131	151
95th Queue (ft)	142	209	248	274
Link Distance (ft)		331	331	331
Upstream Blk Time (%)			0	0
Queuing Penalty (veh)			0	0
Storage Bay Dist (ft)	290			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 5: Park Avenue/Moon River Drive & Avenue 50

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LTR	LT	R
Maximum Queue (ft)	126	111	125	42	83	167	110	50	128	134	51
Average Queue (ft)	54	42	55	11	36	79	18	22	55	60	22
95th Queue (ft)	99	88	102	30	74	142	66	45	102	112	42
Link Distance (ft)		1457	1457			929	929		606		435
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	140			100	160			105		200	
Storage Blk Time (%)	0	0	1			0	0				
Queuing Penalty (veh)	0	0	0			0	0				

Zone Summary

Zone wide Queuing Penalty: 3

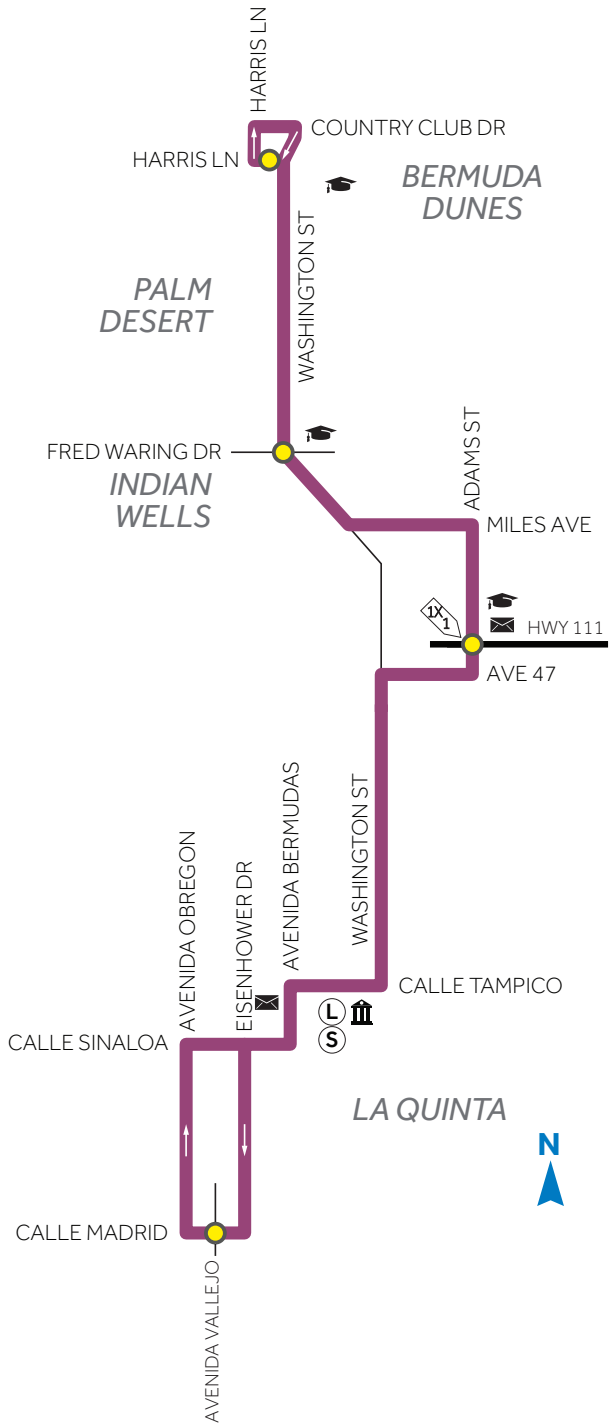
APPENDIX H -

TRANSIT ROUTE INFORMATION

ROUTE RUTA 7

BERMUDA DUNES
INDIAN WELLS
LA QUINTA

LEVEL 2 SCHEDULE 7 DAYS
NIVEL 2 HORARIO 7 DÍAS



- ROUTE / RUTA
- CITY HALL / AYUNTAMIENTO
- SCHOOL / ESCUELA
- LIBRARY / BIBLIOTECA
- SENIOR CENTER / CENTRO PARA ADULTOS MAYORES
- POST OFFICE / OFICINA POSTAL
- TIMEPOINT / PUNTO DE TIEMPO
- TRANSFER POINT / PUNTO DE TRANSFERENCIA

ROUTE
RUTA
7

BERMUDA DUNES
INDIAN WELLS
LA QUINTA

LEVEL 2 SCHEDULE 7 DAYS
NIVEL 2 HORARIO 7 DÍAS

NORTHBOUND | *HACIA EL NORTE*

Calle Madrid @ Avenida Vallejo	Adams @ Hwy 111	Washington @ Fred Waring	Harris Lane @ Washington
5:45a	6:08a	6:15a	6:20a
7:15a	7:39a	7:45a	7:50a
8:45a	9:09a	9:15a	9:20a
10:15a	10:39a	10:47a	10:54a
11:45a	12:09p	12:17p	12:24p
1:15p	1:39p	1:47p	1:54p
2:45p	3:09p	3:17p	3:24p
4:15p	4:39p	4:47p	4:54p
5:45p	6:08p	6:14p	6:19p
7:15p	7:38p	7:44p	7:49p
8:45p	9:08p	9:15p	9:20p

SOUTHBOUND | *HACIA EL SUR*

Harris Lane @ Washington	Washington @ Fred Waring	Adams @ Hwy 111	Calle Madrid @ Avenida Vallejo
5:10a	5:18a	5:24a	5:39a
6:40a	6:49a	6:56a	7:14a
8:10a	8:19a	8:26a	8:44a
9:40a	9:49a	9:56a	10:14a
11:10a	11:19a	11:26a	11:44a
12:40p	12:49p	12:56p	1:14p
2:10p	2:19p	2:26p	2:44p
3:40p	3:49p	3:56p	4:14p
5:10p	5:20p	5:27p	5:44p
6:40p	6:50p	6:57p	7:14p
8:10p	8:18p	8:24p	8:39p

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APPENDIX I -

VEHICLE MILES TRAVELED

Troutdale Village
Vehicle Miles Traveled
Screening Assessment

Prepared for:

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Prepared by:

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Wildomar, CA 92595

April 2023

1.0 PROJECT INTRODUCTION

The purpose of this report is to evaluate the project's Vehicle Miles Traveled (VMT) analysis requirements and compliance with Senate Bill 743 (SB 743) and The California Environmental Quality Act (CEQA).

1.1 PROJECT DESCRIPTION

The project will be developed on a vacant site located on the northeast corner of Washington Street and Avenue 50. Access to the project site will be provided via two driveways along Washington Street and Avenue 50 respectively. The subject project is proposing the construction of eleven (11) residential buildings including one hundred seventy-eight (178) multifamily (low-rise) housing units, seventy four (74) affordable housing units and one (1) clubhouse with amenities. Access to the project site will be provided via two driveways along Washington Street and Avenue 50 respectively.

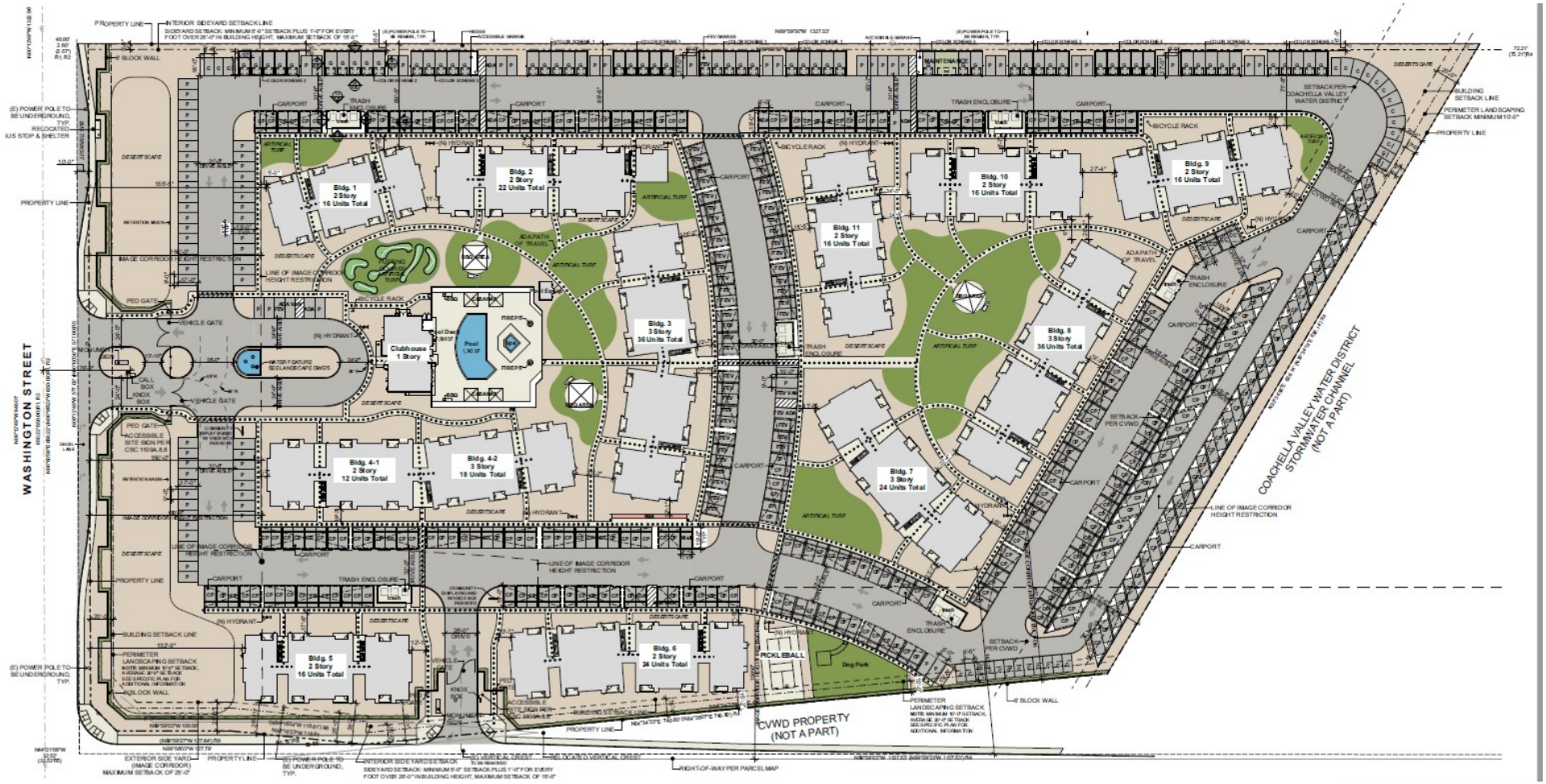
Figure 1-1 shows the Project site plan.

1.2 SENATE BILL 743

On September 27, 2013, SB 743 was signed into State law and started a process intended to fundamentally change transportation impact analysis as part of the CEQA compliance. The California Natural Resource Agency updated the CEQA transportation analysis guidelines in 2018. In this update automobile delay and LOS metrics are no longer to be used in determining transportation impacts. Instead VMT metrics will serve as the basis in determining impacts. Furthermore, the guidelines stated that after July 1, 2020, transportation analysis under CEQA must use VMT to determine impacts for land use projects.

1.3 GUIDANCE DOCUMENTS

The project is within the jurisdiction of the City of La Quinta. The City has adopted guidance on evaluating VMT for transportation impacts under CEQA. Therefore, the City of La Quinta Vehicle Miles Traveled (VMT) Analysis Policy (June 2021), hereafter referred to as Guidelines, will be used for this analysis.



INTEGRATED ENGINEERING GROUP
TRANSPORTATION PLANNING AND ENGINEERING

Troutdale Village
Project Site Plan
Figure 1-1

2.0 ANALYSIS METHODOLGY

The Guidelines outline 4 major-steps for CEQA assessment and VMT analysis:

- Screening criteria under which projects are not required to submit a detailed VMT analysis
- VMT analysis methodologies
- Significance thresholds
- Mitigation measures for significant and unavoidable impacts

2.1 SCREENING CRITERIA

The Guidelines recognize that certain projects based on type, location, size and other contexts could lead to a *presumption of less than significance* (i.e. the project's VMT would not cause a transportation impact under CEQA) and would not need additional VMT analysis. The Guidelines provide the following screening criteria:

1. The project is located within a Transit Priority Area or a High-Quality Transit Corridor and the project is consistent with the City's General Plan and zoning, has a floor-to-area ratio (FAR) greater than 0.75, provides parking less than or equal to the City's Municipal Code requirements, consistent with the applicable Sustainable Communities Strategy and does not replaces affordable residential units with a smaller number of moderate or high-income residential units.
2. Residential and office projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low VMT area.
3. Small Projects that applies to projects with low trip generation per existing CEQA exemptions or result in a 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) per year screening level threshold, based on the Riverside County Climate Action Plan and South Coast Air Quality Management District's draft interim guidance for assessing project-level greenhouse gas impacts.
    a. Single Family Housing projects less than or equal to 140 Dwelling Units (DU); or
    b. Multi Family (low-rise) Housing projects less than or equal to 200 DU; or
    c. Multi Family (mid-rise) Housing projects less than or equal to 245 DU; or
    d. General Office Building with area less than or equal to 160,000 SF; or
    e. Retail buildings with area less than or equal to 70,000 SF; or
    f. Warehouse (unrefrigerated) buildings with area less than or equal to 410,000 SF; or
    g. General Light Industrial buildings with area less than or equal to 170,000 SF; or
    h. Small Infill Projects; or
    i. Transportation Projects that reduce or do not increase VMT; or
    j. Project GHG emissions less than 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) as determined by a methodology acceptable to the Design and Development Department; or
    k. Unless specified above, project trip generation is less than 110 trips per day per the ITE Manual or other acceptable source determined by the City.

4. Local Serving Projects that introduce local serving land uses are determined to shorten non-discretionary trips by putting goods and services closer to residents, resulting in an overall

reduction in VMT. These land uses can be presumed to have a less than significant impact, absent substantial evidence to the contrary. Local serving land uses are listed below:

a. Local serving retail projects less than 50,000 square feet
b. Local-serving K-12 schools
c. Local parks
d. Day care centers
e. Local-serving gas stations
f. Local-serving banks
g. Local-serving hotels (e.g. non-destination hotels)
h. Local-Serving Public Facilities
i. Student housing projects
j. Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS
k. Affordable Housing

2.2 VMT ANALYSIS

Projects that do not meet any of the screening criteria identified would need to perform a VMT analysis per the Guidelines. The project would need to evaluate the appropriate VMT metrics and compare them to thresholds to determine significance as defined by the Guidelines.

2.3 VMT THRESHOLDS

Once a project identifies the appropriate VMT measures for the proposed land uses it would need to be compared to thresholds for those metrics to determine significance under CEQA. The City of La Quinta has developed significance thresholds by utilizing Riverside County Transportation Analysis Model (RIVTAM/RIVCOM) regionwide averages included in the City Guideline "Thresholds for Determination of Significant Transportation Impact" Section.

3.0 PROJECT ANALYSIS

The project proposes the construction of consisting of a combination of 178 multifamily (low-rise) units and 74 affordable housing units.

3.1 SCREENING CRITERIA ASSESSMENT

1. *The project is proposing the construction of 74 affordable housing units.*

2. *The project is proposing the construction of 178 Multi Family (low-rise) Housing projects less than or equal to 200 DU*

Based on the guidelines screening criteria information provided above, **the proposed project would be presumed to have a less than significant VMT impact**.

3.2 CONCLUSION

As concluded in Section 3.1 of this report, the proposed project is qualified to be screened out since it meets the affordable housing and multi-family screening criteria and therefore, is presumed to have a less than significant VMT impact. It is our recommendation that the project be approved with no additional project-level VMT analysis.