Kimley-Horn
and Associates, Inc.

T E C H N I C A L M E M O R A N D U M

Date: January 28, 2013

To: Ed Wimmer,
Principal Engineer, Public Works Department,
City of La Quinta, CA

From: Vikas Sharma, T.E.
Sri Chakravarthy, P.E., T.E.
Kimley-Horn and Associates, Inc.

Subject: Focused Traffic Impact Memorandum for the Expansion of The Chateau at Lake La Quinta, City of La Quinta, CA

MEMORANDUM OVERVIEW

This memorandum documents the findings of traffic analysis completed as part of the environmental assessment for the proposed demolition/remodeling and expansion of the The Chateau at Lake La Quinta, 78120 Caleo Bay in the City of La Quinta, California. The proposed expansion would add a second floor to the north wing of the building and remodel the innkeeper's residence and garage into guest rooms, expanding the existing approved bed/breakfast use from 11 to 24 rooms. The analysis is based on the methodology and format consistent with the City of La Quinta Traffic Study Guidelines (effective June 29, 2012 as per Engineering Bulletin #06-13).

The site is located to the east of Washington Street along Caleo Bay Drive to the south of Lake La Quinta Drive. The project with expansion is expected to generate 74 daily trips, 6 trips during the AM peak time and 6 trips during the PM peak time. This memorandum identifies the peak hour volume to capacity (v/c) ratio for Washington Street and Level-of-Service (LOS) conditions for the unsignalized intersection of Washington Street and Lake La Quinta Drive for both morning (AM) and evening (PM) peak hour conditions under existing, existing plus project and existing plus cumulative plus project conditions. The analysis was performed using Traffix software and utilized Highway Capacity Manual (HCM) 2000 methodology for analysis of unsignalized intersections.

PROPOSED EXPANSION AND SUROUNDING AREA

The project site is located to the east of Washington Street along Caleo Bay Drive to the south of Lake La Quinta Drive between Avenue 47 and Avenue 48. The intersection of Washington Street and Lake La Quinta Drive is an unsignalized intersection with side street stop control along Lake La Quinta Drive. The current land use around the project site is residential. There is a Bone and Joint Hospital to the west of project site and small offices, pharmacy and stores along Washington Street. There is also a shopping center less than one mile to the northeast of the project site. Washington Street consists of 3 lanes in each direction and is currently classified as a major arterial. Washington Street provides access to the State Highway 111 and to Interstate I-10, north of city limits and carries an average daily traffic of 39,266 vehicles.

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The study area and the intersections for this project were identified in consultation with the City of La Quinta staff. The following intersections and roadway segments were analyzed:

- Unsignalized intersection of Washington Street and Lake La Quinta Drive (HCM LOS Analysis)
- Washington Street between Avenue 47 and Avenue 48 (v/c analysis)

Analysis Scenarios

Weekday AM and PM peak period Level of Service analysis was completed for the following scenarios:

- Existing Conditions
- Existing Plus Project
- Existing Plus Cumulative Plus Project

Traffic Data

Existing turning movement counts (TMC) were collected during weekday morning (6:00 AM to 8:30 AM) and afternoon (2:00 PM to 5:30 PM) peak periods on January 16, 2014. One day 24-hour tube counts were also collected along Washington Street, north of the unsignalized intersection of Washington Street and Lake La Quinta Drive. The TMC and ADT counts are included in **Appendix A** to this memorandum.

Figure 1 shows the project site, study area and existing traffic counts.

Analysis Tools

Traffix software was used to analyze the operations the unsignalized intersection of Washington Street and Lake La Quinta Drive.

LOS Criteria

LOS analysis for intersection of Washington Street and Lake La Quinta Drive was conducted using the Highway Capacity Manual (HCM) methodology for unsignalized intersections. The HCM methodology returns a delay value, expressed in terms of seconds of delay per vehicle, which also corresponds to a level of service measure. HCM 2000 LOS criteria are presented in **Table 1**.

As per the City of La Quinta Traffic Study Guidelines, the unsignalized intersections shall have a LOS 'D' or better for all critical movements at an all-way stop controlled intersection and a LOS 'E' for a side street on a two-way stop controlled intersection based on the latest HCM delay methodology.

Table 1: Level of Service (LOS) Criteria for Unsignalized Intersection

Unsignalized Intersection Delay (seconds/vehicle)	Level of Service (LOS)
≤10.0	A
<10.0 and <15.0	B
>15.0 and <25.0	C
>25.0 and <35.0	D
>35.0 and <50.0	E
>50.0	F

Source: HCM 2000

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Table 2 presents the maximum daily capacity of a roadway in the City of La Quinta based on its functional classification. Average daily traffic (ADT) represents the total number of vehicles (both directions) traveling on a roadway segment throughout the course of 24 hours.

Table 2: Roadway Capacities

Classification	Lane Configuration	Capacity (ADT)
Local	2U	9,000
Collector	2U	14,000
Modified Secondary	2D	19,000
Secondary	4U	28,000
Primary	4D	41,400
Major	6D	59,300
Augmented Major	8D	76,000

Source: City of La Quinta Engineering Bulletin #06-13

The City of La Quinta Engineering Bulletin #06- 13 (September 22, 2010) specifies that the maximum daily volume to capacity (V/C) ratio of 0.90 shall be used for all roadway segments being analyzed.

Significant Impact Thresholds

For Unsignalized Intersection: If an intersection with project traffic included, has a projected LOS 'F' on a side street for two-way stop control or LOS 'E' or worse for the intersection at an all-way stop controlled intersection and the addition of project traffic results in an addition of 3 seconds or more of delay for any movement.

For Roadway Segments: A potentially significant project traffic impact is defined to occur on any road segment if the segment is projected to be operating at LOS E or LOS F with project traffic included and the peak hour V/C in the peak direction is increased by 0.02 or more by addition of project traffic at existing plus project or at project opening year.

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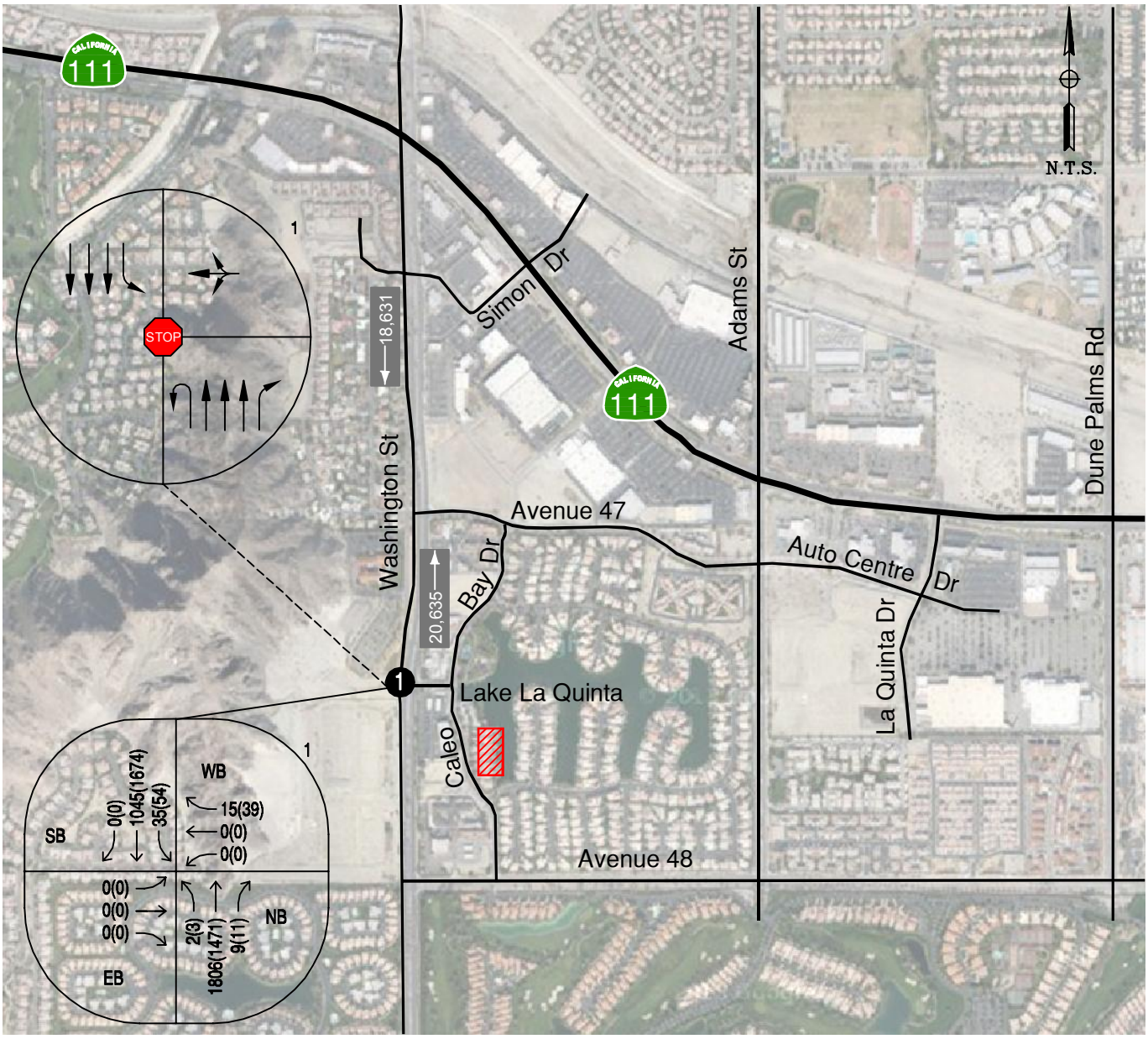

1 Study Area Intersection

Project Site

XX(XX) AM(PM) Peak Hour (TMC)

XXXX Directional Average Daily Traffic (ADT)

Lane Use

STOP Stop Sign

Figure 1
Project Site Area, Lane Configuration
Existing Peak Hour Traffic Volumes
and Average Daily Traffic Volumes

TRAFFIC ANALYSIS RESULTS

The City of La Quinta Traffic Study Guidelines indicate that a LOS "E" is the minimum acceptable LOS for a side street on a two-way stop controlled intersection.

Existing Conditions

Weekday AM and PM peak-hour traffic volumes collected in January 2014 were analyzed using Traffix HCM 2000 methodology. **Table 3** presents the Existing peak-hour intersection operating conditions.

Table 3: LOS Summary for Existing Conditions

Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
Washington Street / Lake La Quinta Drive	13.4	**B**	12.4	**B**

Table 3 indicates that the unsignalized intersection of Washington Street and La Quinta Drive currently operates at an acceptable LOS B during both morning and evening peak.

Existing Plus Project Conditions

Average weekday daily, AM, and PM trip generation rates for Motel were calculated from ITE Trip Generation Manual 9th Edition (land-use #320) and are summarized in **Table 4**.

Table 4: Project Trip Generation for Motel Expansion

Trip Generation Source	Units	Land-Use	Project Generated Trips						
			Total Daily Trips	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total
ITE	*13 Rooms*	320 (Motel)	**74**	2	4	**6**	3	3	**6**

Source: Trip Generation Manual (9thEdition) January, 2014

The distribution of project traffic was developed based upon local knowledge of the study area. Project traffic was assigned to the study area roadway network based upon distribution patterns that considered adjacent land uses, freeway access, and arterial capacities. The project trip distribution percentages and the resulting weekday existing plus project peak-hour traffic volumes are illustrated in **Figure 2**.

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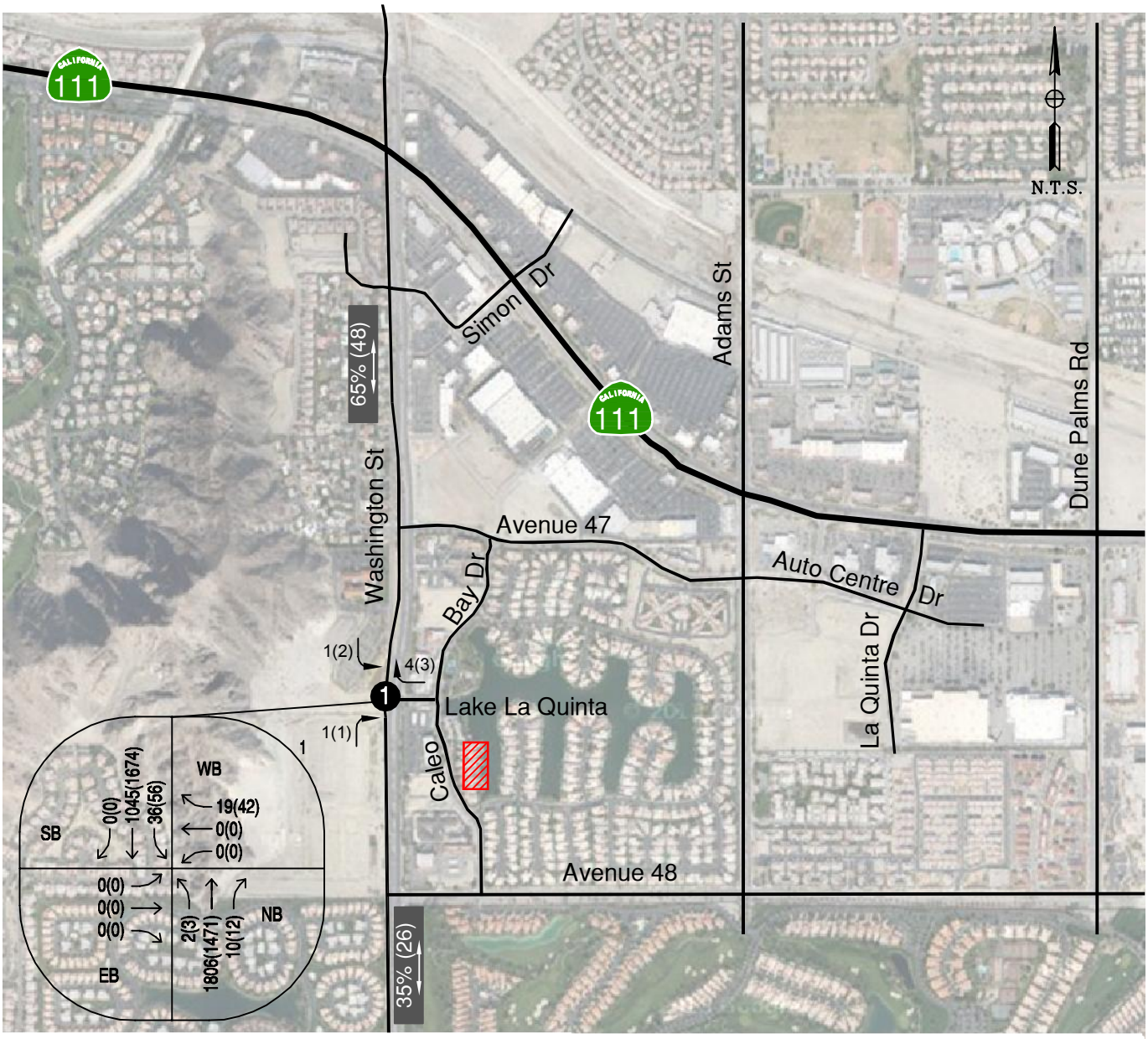

1 Study Area Intersection

Project Site

XX(XX) AM(PM) Peak Hour (TMC)

XX%(XX) Trip Distribution (Daily Trips)

X(X) Project Trips AM(PM)

Figure 2
Existing Plus Project Peak Hour Traffic Volumes and Project Trip Distribution

Table 5 presents the peak-hour LOS for existing plus project conditions.

Table 5: Level of Service Summary for Existing Plus Project Conditions

Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
Washington Street / Lake La Quinta Drive	13.5	**B**	12.5	**B**

Table 5 indicates that the intersection of Washington Street and Lake La Quinta Drive would operate at Level-of-Service B or better during both AM and PM peak hours for Existing Plus Project conditions based upon HCM 2000 methodology.

Existing Plus Project Plus Cumulative Conditions

Information about cumulative projects (approved and pending projects) in the vicinity was obtained from the City of La Quinta. All projects that have been approved, but are not yet constructed or occupied completely have been included in the Cumulative analysis. **Figure 3** shows the cumulative project trips distribution. A list of cumulative projects within the study area is provided in **Table 6**.

Table 6: Surrounding Projects Trip Generation Summary

ITE Code #	ITE Land Use	Units	Project Generated Trips						
			Daily	AM Peak Hour			PM Peak Hour		
				In	*Out*	*Total*	*In*	*Out*	*Total*
210	Single Family	146 Units	1,390	28	82	110	92	54	146
820	Shopping Center*	546 KSF	19,472	272	166	438	608	659	1,267
710	General Office	17.59 KSF	196	24	3	27	4	22	26
TOTAL NET TRIPS GENERATED			**21,048**	**324**	**251**	**575**	**704**	**735**	**1,439**

Source: City of La Quinta Community Development
Source: ITE Trip Generation Manual, 9th Edition.
**A 25% Pass-By Trip Reduction Applied for Shopping Center in the PM Peak*

Existing and project traffic was added to the cumulative project trips to evaluate the Existing Plus Project Plus Cumulative conditions. **Figure 4** shows the existing plus project plus cumulative traffic volumes.

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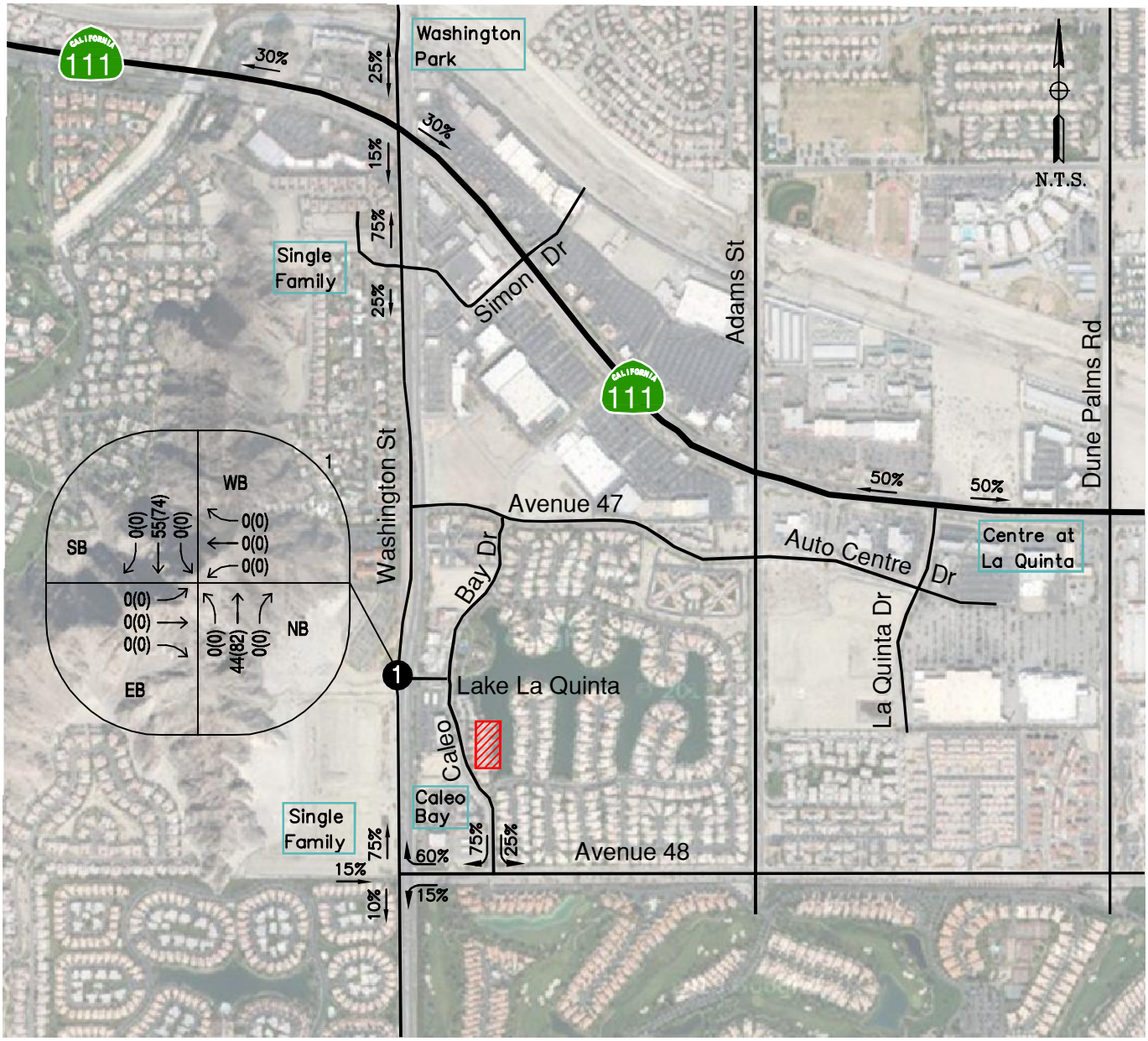

1 Study Area Intersection

Project Site

XX% Cumulative Project Trip Distribution

XX(XX) AM(PM) Peak Hour (TMC)

Cumulative Project

Figure 3
Cumulative Project Peak Hour Traffic Volumes
and Cumulative Project Trip Distribution

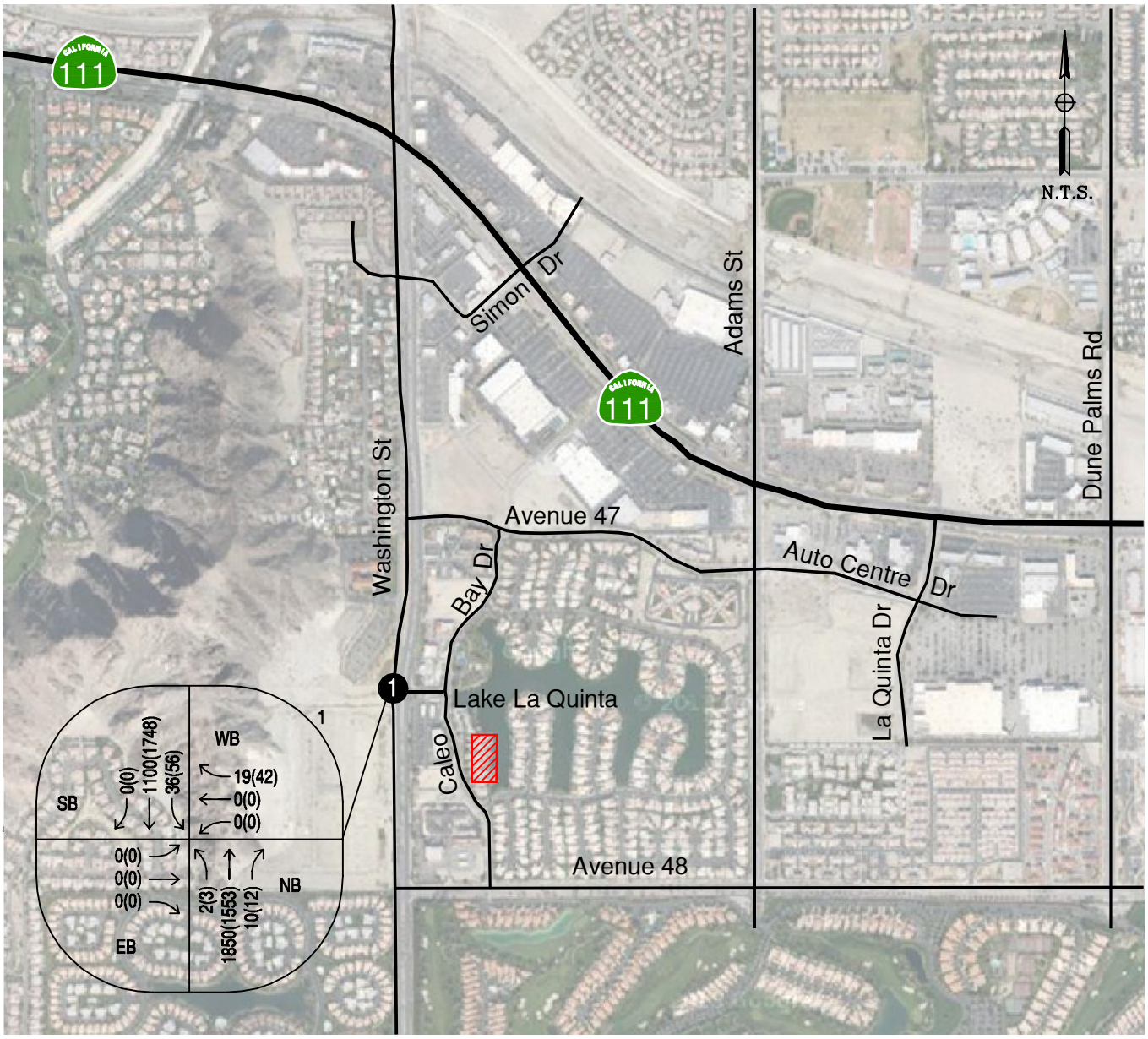

Figure 4
Existing Plus Project Plus Cumulative
Project Peak Hour Traffic Volumes

1 Study Area Intersection

Project Site

XX(XX) AM(PM) Peak Hour (TMC)

The results of the Existing Plus Project Plus Cumulative conditions analysis are presented in **Table 6.**

Table 7: Level of Service Summary for Existing Plus Project Plus Cumulative Conditions

Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
Washington Street / Lake La Quinta Drive	13.7	**B**	12.8	**B**

As shown in **Table 7,** the intersection of Washington Street and Lake La Quinta is projected to operate with an acceptable LOS B or better for the existing plus project plus cumulative conditions.

TRAFFIX analysis worksheets for all three scenarios are included in **Appendix B**.

Roadway Segment Analysis

Existing 24-hour roadway segment volumes were collected along Washington Street on January 16, 2014 and were analyzed for significant impacts resulting from La Quinta Inn expansion. The roadway segment average daily volume-to-capacity ratio and level of service analysis results, based on the capacity thresholds provided in City of La Quinta TIA guidelines, are summarized in **Table 8**.

Table 8: Roadway Segment Analysis for Washington Street

Scenario	Number of Lanes	Roadway Designation	Capacity Threshold	Average Daily Traffic (ADT)	V:C Ratio - LOS
Existing	6	Major	59,300	39,266	0.66 - B
Existing Plus Project				39,340	0.66 - B
Existing Plus Project Plus Cumulative				41,928	0.71 - C

As shown in **Table 8**, Washington Street roadway segment between Avenue 47 and Avenue 48 is currently operating at an acceptable LOS B and is projected to operate at LOS B with addition of project trips and at LOS C for existing plus project plus cumulative conditions. Clearly, there are no roadway impacts resulting from this expansion project.

MITIGATION MEASURES

As reported in the sections above, the proposed project will not impact the intersection of Washington Street and Lake La Quinta Drive and the roadway segment along Washington Street for the Existing Plus Project Plus Cumulative conditions. Therefore, no mitigation measures are necessary.

FAIR SHARE ANALYSIS

We completed a fair share cost analysis to determine project's contribution for the future traffic signal at Washington Street and Lake La Quinta Drive. City's traffic impact study guidelines (Engineering Bulletin #06-13) states that a proposed project would be required to contribute a fair share if the project results in a significant impact. The proposed project does not result in a significant impact but a fair share analysis was completed based upon City staff's request. The fair share calculation was calculated as the ratio of the increase in peak hour turning movement volumes from the project divided by the sum of the existing

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peak hour turning movements plus peak hour turning movement volumes generated by the cumulative development projects.

The traffic analysis indicates that the sum of Existing + Cumulative projects (including proposed Laing Homes and St Francis Church developments on the new west leg of Washington St/Lake La Quinta Drive) turning movement volumes would be 498 during the AM and PM peak hours at this intersection along Lake Quinta Drive. The proposed expansion project would add 12 trips during the AM and PM peak hours. Based upon this information, the project's fair share contribution would be 2.0%.

The calculations for fair share cost analysis are provided in **Appendix C**.

CONCLUSIONS

Kimley-Horn has completed a traffic analysis of the proposed expansion of the La Chateau at Lake La Quinta Motel at 78120 Caleo Bay in the City of La Quinta. The analysis indicates that the study intersection of Washington Street / Lake La Quinta Drive would continue to operate at an acceptable Level-of-Service B or better for existing, existing plus project and existing plus project plus cumulative projects conditions during both morning and evening peak periods of operation. The projected daily traffic resulting from site expansion results in minimal change to v/c ratio and LOS along Washington Street. The proposed expansion would not result in significant impacts to study intersection and Washington Street.

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Appendix A –Traffic Counts

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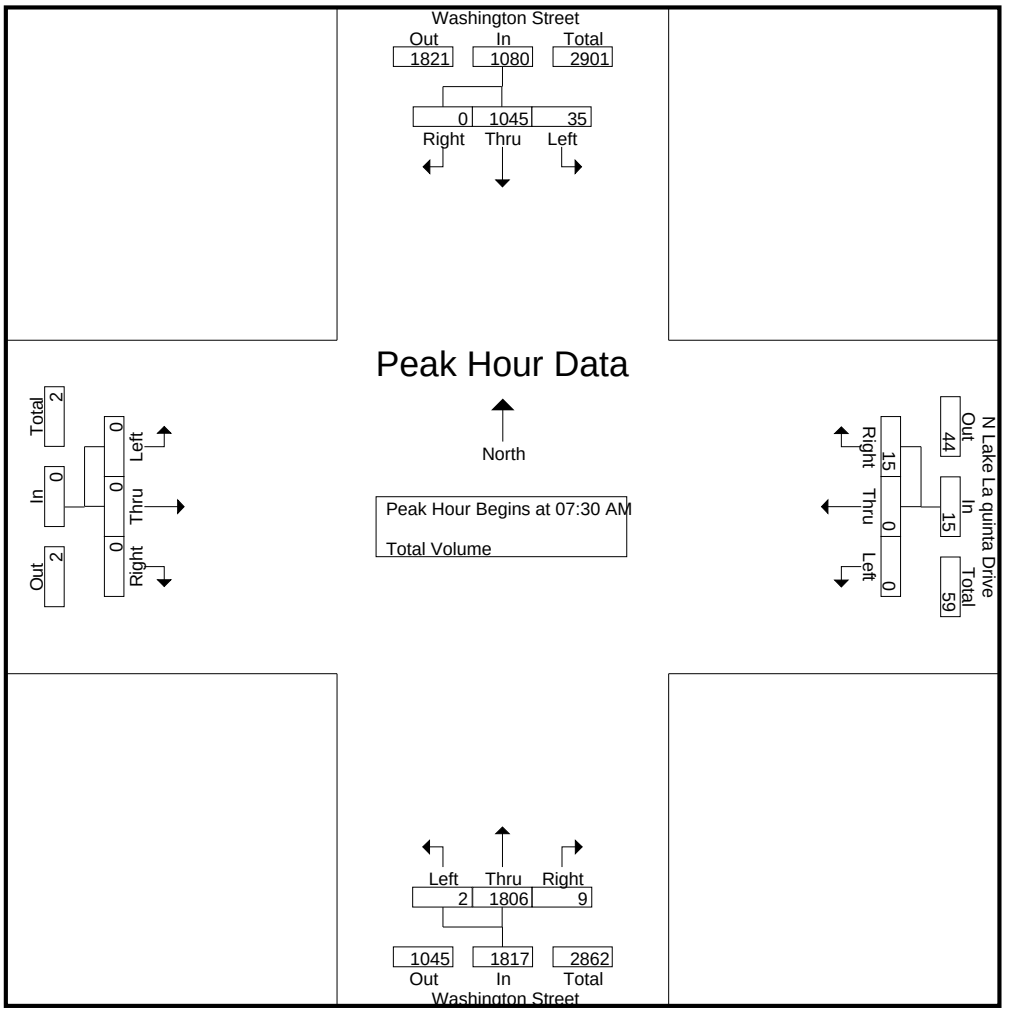
Counts Unlimited Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

City of La Quinta
N/S: Washington Street
E/W: N Lake La Quinta Drive
Weather: Sunny

File Name : LQAWALLQAM
Site Code : 14018001
Start Date : 1/16/2014
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	10	243	0	253	0	0	**5**	**5**	0	406	0	406	0	0	0	0
+15 mins.	11	275	0	286	0	0	4	4	**1**	459	2	462	0	0	0	0
+30 mins.	**19**	**304**	0	**323**	0	0	2	2	0	**566**	1	**567**	0	0	0	0
+45 mins.	13	268	0	281	0	0	4	4	0	433	**6**	439	0	0	0	0
Total Volume	53	1090	0	1143	0	0	15	15	1	1864	9	1874	0	0	0	0
% App. Total	4.6	95.4	0		0	0	100		0.1	99.5	0.5		0	0	0	
PHF	.697	.896	.000	.885	.000	.000	.750	.750	.250	.823	.375	.826	.000	.000	.000	.000

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PO Box 1178
Corona, CA 92878
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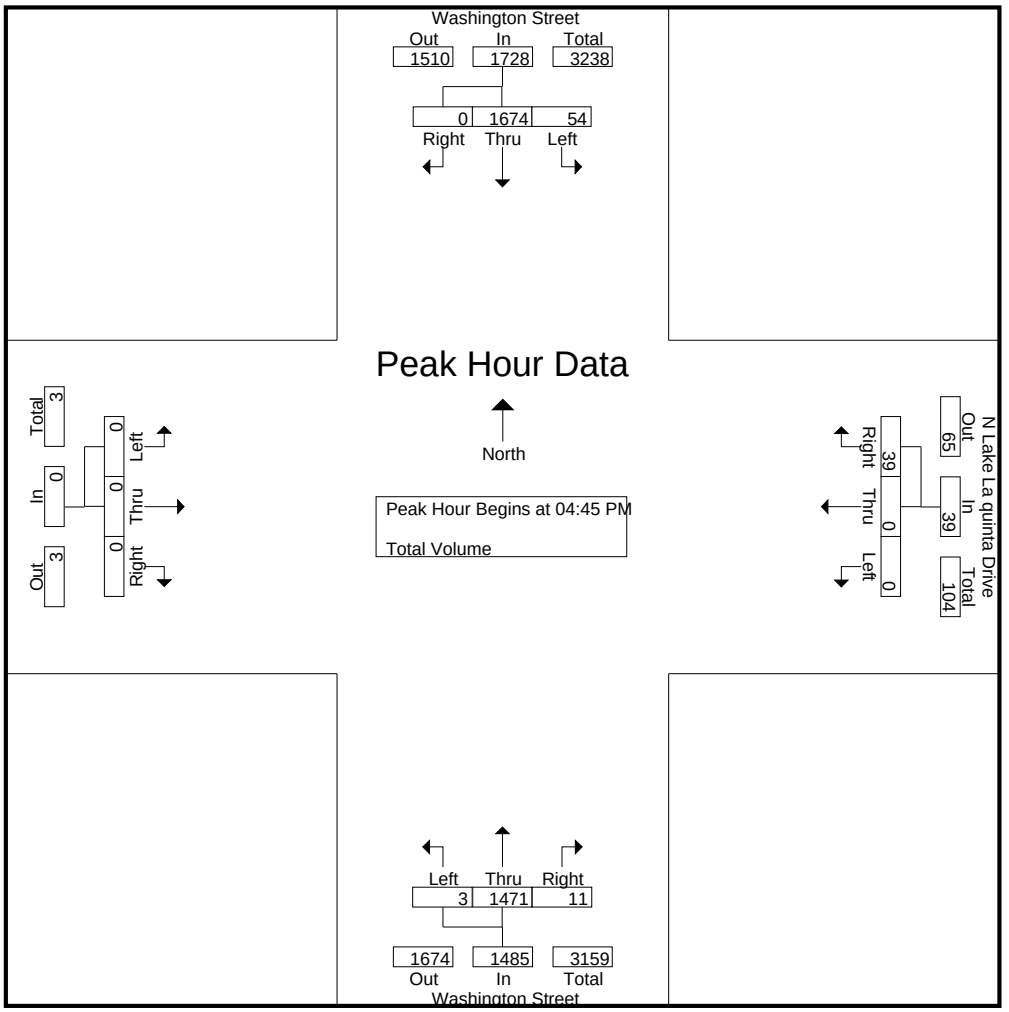
City of La Quinta
N/S: Washington Street
E/W: N Lake La Quinta Drive
Weather: Sunny

File Name : LQAWALLQPM
Site Code : 14018001
Start Date : 1/16/2014
Page No : 2



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

	04:45 PM				04:30 PM				04:15 PM				04:00 PM			
+0 mins.	**19**	424	0	443	0	0	9	9	0	**406**	2	**408**	0	0	0	0
+15 mins.	8	413	0	421	0	0	6	6	**3**	392	**3**	398	0	0	0	0
+30 mins.	11	408	0	419	0	0	**17**	**17**	2	359	2	363	0	0	0	0
+45 mins.	16	**429**	0	**445**	0	0	9	9	0	392	0	392	0	0	0	0
Total Volume	54	1674	0	1728	0	0	41	41	5	1549	7	1561	0	0	0	0
% App. Total	3.1	96.9	0		0	0	100		0.3	99.2	0.4		0	0	0	
PHF	.711	.976	.000	.971	.000	.000	.603	.603	.417	.954	.583	.956	.000	.000	.000	.000

Counts Unlimited, Inc.
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(951) 268-6268

City of La Quinta
Washington Street
N/ Lake La Quinta Drive
24 Hour Directional Volume Count

LQAWANLL
Site Code: 108-14018
Date Start: 16-Jan-14
Date End: 16-Jan-14

Start Time	16-Jan-14 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		17	365			41	279				
12:15		26	336			34	283				
12:30		20	371			20	295				
12:45		9	291	72	1363	21	299	116	1156	188	2519
01:00		14	315			20	304				
01:15		5	348			17	297				
01:30		11	319			11	289				
01:45		14	336	44	1318	15	291	63	1181	107	2499
02:00		6	342			7	302				
02:15		7	361			11	320				
02:30		6	417			5	356				
02:45		12	369	31	1489	12	378	35	1356	66	2845
03:00		5	377			8	360				
03:15		14	373			7	411				
03:30		22	390			11	397				
03:45		24	352	65	1492	15	366	41	1534	106	3026
04:00		24	397			8	399				
04:15		28	**392**			10	403				
04:30		64	**408**			12	372				
04:45		60	**373**	176	1570	18	**453**	48	1627	224	3197
05:00		63	**399**			18	**380**				
05:15		111	339			27	**428**				
05:30		134	367			44	**405**				
05:45		142	278	450	1383	49	332	138	1545	588	2928
06:00		151	272			59	366				
06:15		175	255			102	324				
06:30		306	240			115	259				
06:45		300	205	932	972	203	250	479	1199	1411	2171
07:00		**420**	203			162	269				
07:15		**459**	176			246	213				
07:30		**537**	149			261	198				
07:45		**409**	115	1825	643	**283**	229	952	909	2777	1552
08:00		408	126			**239**	190				
08:15		398	94			**297**	234				
08:30		442	114			**284**	193				
08:45		345	107	1593	441	248	205	1068	822	2661	1263
09:00		347	106			223	180				
09:15		331	102			244	175				
09:30		402	81			215	135				
09:45		335	84	1415	373	254	156	936	646	2351	1019
10:00		322	65			244	136				
10:15		314	72			243	113				
10:30		334	58			233	155				
10:45		323	51	1293	246	236	95	956	499	2249	745
11:00		323	48			255	82				
11:15		332	29			263	86				
11:30		364	30			273	54				
11:45		306	17	1325	124	259	53	1050	275	2375	399
Total		9221	11414	9221	11414	5882	12749	5882	12749	15103	24163
Combined Total		20635		20635		18631		18631		39266	
AM Peak		07:00				07:45					
Vol.		1825				1103					
P.H.F.		0.850				0.928					
PM Peak			04:15				04:45				
Vol.			1572				1666				
P.H.F.			0.963				0.919				
Percentage		44.7%	55.3%			31.6%	68.4%				
ADT/AADT		ADT 39,266		AADT 39,266							

Appendix B – TRAFFIX Analysis Worksheets

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Washington Street and Lake La Quinta Drive

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: C[16.7]

Street Name:	Washington Street								Lake La Quinta Drive							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	2	1 0	1	0	3	0 0	0	0	0	0 0	0	0	0	0 1
Volume Module:																
Base Vol:	2	1806		9	35	1045		0	0		0	0	0		0	15
Growth 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
Initial Bse:	2	1806		9	35	1045		0	0		0	0	0		0	15
User 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
PHF 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
PHF Volume:	2	1806		9	35	1045		0	0		0	0	0		0	15
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
FinalVolume:	2	1806		9	35	1045		0	0		0	0	0		0	15
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				6.9
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				3.3
Capacity Module:																
Cnflict Vol:	1045	xxxx	xxxxx		1815	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				607
Potent Cap.:	673	xxxx	xxxxx		343	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				445
Move Cap.:	673	xxxx	xxxxx		343	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				445
Volume/Cap:	0.00	xxxx	xxxx		0.10	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx				0.03
Level Of Service Module:																
2Way95thQ:	0.0	xxxx	xxxxx		0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				0.1
Control Del:	10.4	xxxx	xxxxx		16.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				13.4
LOS by Move:	B	*		*	C	*		*	*		*	*	*		*	B
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*		*	*	*		*	*		*	*	*		*	*
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				13.4			
ApproachLOS:	*				*				*				B			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Washington Street and Lake La Quinta Drive

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[14.3]

Street Name:	Washington Street								Lake La Quinta Drive							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	2	1 0	1	0	3	0 0	0	0	0	0 0	0	0	0	0 1
Volume Module:																
Base Vol:	3	1471		11	54	1674		0	0		0	0	0		0	39
Growth 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
Initial Bse:	3	1471		11	54	1674		0	0		0	0	0		0	39
User 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
PHF 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
PHF Volume:	3	1471		11	54	1674		0	0		0	0	0		0	39
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
FinalVolume:	3	1471		11	54	1674		0	0		0	0	0		0	39
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				6.9
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				3.3
Capacity Module:																
Cnflict Vol:	1674	xxxx	xxxxx		1482	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				496
Potent Cap.:	388	xxxx	xxxxx		460	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				525
Move Cap.:	388	xxxx	xxxxx		460	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				525
Volume/Cap:	0.01	xxxx	xxxx		0.12	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx				0.07
Level Of Service Module:																
2Way95thQ:	0.0	xxxx	xxxxx		0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				0.2
Control Del:	14.3	xxxx	xxxxx		13.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				12.4
LOS by Move:	B	*		*	B	*		*	*		*	*	*		*	B
Movement:	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*		*	*	*		*	*		*	*	*		*	*
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				12.4			
ApproachLOS:	*				*				*				B			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Washington Street and Lake La Quinta Drive

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: C[16.7]

Street Name:	Washington Street								Lake La Quinta Drive							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	2	1 0	1	0	3	0 0	0	0	0	0 0	0	0	0	0 1
Volume Module:																
Base Vol:	2	1806		10	36	1045		0	0		0	0	0		0	19
Growth Adj:	1.00	1.00		1.00 1.00	1.00			1.00	1.00			1.00 1.00	1.00			1.00
Initial Bse:	2	1806		10	36	1045		0	0		0	0	0		0	19
User Adj:	1.00	1.00		1.00 1.00	1.00			1.00	1.00			1.00 1.00	1.00			1.00
PHF Adj:	1.00	1.00		1.00 1.00	1.00			1.00	1.00			1.00 1.00	1.00			1.00
PHF Volume:	2	1806		10	36	1045		0	0		0	0	0		0	19
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
FinalVolume:	2	1806		10	36	1045		0	0		0	0	0		0	19
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				6.9
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				3.3
Capacity Module:																
Cnflict Vol:	1045	xxxx	xxxxx		1816	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				607
Potent Cap.:	673	xxxx	xxxxx		342	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				444
Move Cap.:	673	xxxx	xxxxx		342	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				444
Volume/Cap:	0.00	xxxx	xxxx		0.11	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx				0.04
Level Of Service Module:																
2Way95thQ:	0.0	xxxx	xxxxx		0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				0.1
Control Del:	10.4	xxxx	xxxxx		16.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				13.5
LOS by Move:	B	*		*	C	*		*	*		*	*	*			B
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*		*	*	*		*	*		*	*	*			*
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				13.5			
ApproachLOS:	*				*				*				B			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Washington Street and Lake La Quinta Drive

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[14.3]

Street Name:	Washington Street								Lake La Quinta Drive							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	2	1 0	1	0	3	0 0	0	0	0	0 0	0	0	0	0 1
Volume Module:																
Base Vol:	3	1471		12	56	1674		0	0		0	0	0		0	42
Growth 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
Initial Bse:	3	1471		12	56	1674		0	0		0	0	0		0	42
User 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
PHF 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
PHF Volume:	3	1471		12	56	1674		0	0		0	0	0		0	42
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
FinalVolume:	3	1471		12	56	1674		0	0		0	0	0		0	42
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				6.9
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				3.3
Capacity Module:																
Cnflict Vol:	1674	xxxx	xxxxx		1483	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				496
Potent Cap.:	388	xxxx	xxxxx		460	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				524
Move Cap.:	388	xxxx	xxxxx		460	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				524
Volume/Cap:	0.01	xxxx	xxxx		0.12	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx				0.08
Level Of Service Module:																
2Way95thQ:	0.0	xxxx	xxxxx		0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				0.3
Control Del:	14.3	xxxx	xxxxx		13.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				12.5
LOS by Move:	B	*		*	B	*		*	*		*	*	*		*	B
Movement:	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*		*	*	*		*	*		*	*	*		*	*
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				12.5			
ApproachLOS:	*				*				*				B			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Washington Street and Lake La Quinta Drive

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: C[17.3]

Street Name:	Washington Street								Lake La Quinta Drive							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	2	1 0	1	0	3	0 0	0	0	0	0 0	0	0	0	0 1
Volume Module:																
Base Vol:	2	1850		10	36	1100		0	0		0	0	0		0	19
Growth 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
Initial Bse:	2	1850		10	36	1100		0	0		0	0	0		0	19
User 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
PHF 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
PHF Volume:	2	1850		10	36	1100		0	0		0	0	0		0	19
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
FinalVolume:	2	1850		10	36	1100		0	0		0	0	0		0	19
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				6.9
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				3.3
Capacity Module:																
Cnflict Vol:	1100	xxxx	xxxxx		1860	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				622
Potent Cap.:	642	xxxx	xxxxx		329	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				435
Move Cap.:	642	xxxx	xxxxx		329	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				435
Volume/Cap:	0.00	xxxx	xxxx		0.11	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx				0.04
Level Of Service Module:																
2Way95thQ:	0.0	xxxx	xxxxx		0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				0.1
Control Del:	10.6	xxxx	xxxxx		17.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				13.7
LOS by Move:	B	*		*	C	*		*	*		*	*	*			B
Movement:	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*		*	*	*		*	*		*	*	*			*
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				13.7			
ApproachLOS:	*				*				*				B			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Washington Street and Lake La Quinta Drive

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[15.0]

Street Name:	Washington Street								Lake La Quinta Drive							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	2	1 0	1	0	3	0 0	0	0	0	0 0	0	0	0	0 1
Volume Module:																
Base Vol:	3	1553		12	56	1748		0	0		0	0	0		0	42
Growth 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
Initial Bse:	3	1553		12	56	1748		0	0		0	0	0		0	42
User 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
PHF 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
PHF Volume:	3	1553		12	56	1748		0	0		0	0	0		0	42
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
FinalVolume:	3	1553		12	56	1748		0	0		0	0	0		0	42
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				6.9
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				3.3
Capacity Module:																
Cnflict Vol:	1748	xxxx	xxxxx		1565	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				524
Potent Cap.:	364	xxxx	xxxxx		428	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				503
Move Cap.:	364	xxxx	xxxxx		428	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				503
Volume/Cap:	0.01	xxxx	xxxx		0.13	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx				0.08
Level Of Service Module:																
2Way95thQ:	0.0	xxxx	xxxxx		0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx				0.3
Control Del:	15.0	xxxx	xxxxx		14.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx				12.8
LOS by Move:	B	*		*	B	*		*	*		*	*	*		*	B
Movement:	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT	LT -	LTR -		RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*		*	*	*		*	*		*	*	*		*	*
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				12.8			
ApproachLOS:	*				*				*				B			

Note: Queue reported is the number of cars per lane.

Appendix C – Fair Share Cost Analysis Worksheet

TEL 213 261 4040

Fairshare Analysis - Focused Traffic Impact Memorandum for the Expansion of the Chateau at Lake La Quinta, City of La Quinta, CA

Scenario	Inbound	Outbound
Existing Plus Cumulative Trips in the Area	114	61
Laing Homes & St Francis Church - Projected Trips*	183	140
Total Existing Plus Project Volumes	498	

*Sunday Church Trips reduced by 50% for weekday Trip Estimation

Additional Trips Resulting from the Motel Expansion	12

Project Percentage Fair share = 2%