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February 27, 2008

Mr. John Vuksic
President
Vuksic Architects
44530 San Pablo Avenue, Suite 200
Palm Desert, CA 92260

Subject: Traffic Analysis for Saint Francis of Assisi Catholic Church Improvement Project

Dear Mr. Vuksic:

INTRODUCTION

Willdan is pleased to submit this traffic analysis regarding the Saint Francis of Assisi Catholic Church (Church). The Church proposes to expand its parking facilities to add additional parking spaces. The City of La Quinta requested a Traffic Impact Report to address trip generation, level of service (LOS), parking generation, and left turn and right turn storage requirements.

The City also requested that traffic generated by the Laing Homes development be incorporated into the study. The Church and Laing Homes development will have shared access to the west leg of the Washington Street and Lake La Quinta Drive intersection. This letter report analyzes the existing traffic volumes generated by the Church and the proposed traffic generated by the Laing Homes development. It does not address traffic volumes that will be generated by other developments.

DATA COLLECTION

Turning movement counts were taken on Saturday, May 26, 2007, between 1:30 p.m. and 3:30 p.m. and on Sunday, June 3, 2007, between 8:30 a.m. and 12:30 p.m. These dates and times were chosen based on discussions with the Church regarding current Sunday church service and Saturday special event schedules. The counts were taken at the following locations:

- Washington Street Frontage and the south Church driveway.
- Washington Street Frontage and the north Church driveway.
- Washington Street Frontage and Highland Palms Drive.
- Washington Street and Highland Palms/Avenue 47.
- Washington Street and Lake La Quinta Drive.

Average Daily Traffic (ADT) counts were not requested by the City or gathered for this analysis.

The peak hour identified for Saturday was 2:30 p.m. to 3:30 p.m. and the peak hour for Sunday was 10:15 a.m. to 11:15 a.m. Saturday Church volumes were significantly lower than Sunday volumes; therefore, Sunday traffic volumes were used as the basis for this analysis and are depicted in Exhibit A. Saturday traffic volumes are depicted in Exhibit B.

TRIP GENERATION

Trip generation was determined for the existing Church facilities. The Institute of Transportation Engineers (ITE) Trip Generation Manual, 7th Edition, was used to calculate trips based on the number of seats. The Church has 760 existing seats and based on the ITE rates, the Church is estimated to generate the following:

Table 1
St. Francis of Assisi Catholic Church
Weekend Trip Generation Rates (trips/seat) vs. Seats
Land Use Code: 560
Number of Seats: 760

Average Saturday Rate	Average Saturday Trips	Average Saturday Peak Hour Rate	Average Saturday Peak Hour Trips	Average Sunday Rate	Average Sunday Trips	Average Sunday Peak Hour Rate	Average Sunday Peak Hour Trips
0.9	684	0.6	456	1.53	1163	0.63	479

Table 2 depicts the weekend trip generation based on the collected turning movement data into and out of the Church.

Table 2
St. Francis of Assisi Catholic Church
Existing Weekend Peak Hour Trips

Saturday	Sunday
28	545

Trip generation for the Laing Homes development was determined based on their approved environmental analysis information received from the City. The environmental analysis indicates that 708 average weekday daily trips will be generated from 74 residences. The peak hour volume was taken to be 10 percent of the average daily trips.

Based on collected turning movement data, the Church currently generates 545 Sunday peak hour trips which exceeds the 479 Sunday peak hour trips determined by the ITE

Trip Generation Manual. Therefore, the existing Church volumes were used as a basis to determine LOS and ICU.

The weekday trips generated by Laing Homes development were combined with the Sunday Church volumes to present a worst case scenario of future trips. For a worse case scenario, a church generates traffic during the weekend and a housing development generates traffic during the weekday.

TRIP DISTRIBUTION

The Church's expansion of its parking facilities will require Washington Street frontage to be abandoned, including the existing north and south Church driveways. A new driveway will be constructed to provide right turn in and out access to Washington Street. A traffic signal will also be installed at Washington Street and Lake La Quinta Drive to provide additional access to the Church property.

The Sunday peak hour volumes were redistributed from the existing access points to the new access points to determine the traffic impacts with the new Church parking facilities. Exhibit C depicts the redistributed traffic volumes generated by the Church. Per City guidelines, a 40 percent seasonal increase was included with the redistributed traffic volumes. The City considers May 16th to September 30th to be off-season and the measured volumes may be increased up to 40 percent.

Exhibit D depicts the peak hour distributed volumes generated by the Laing Homes development.

Exhibit E identifies the combined distributed volumes used in the analysis, which include the Church, the 40% seasonal increase, and Laing Homes.

The trip distribution for the Church was based on the following:

- A 60/40 split was used to determine the traffic volume through the two access points where 60 percent of the Church traffic travels through the Washington Street and Lake La Quinta Drive intersection and 40 percent travels through the north Church driveway.

The trip distribution for the Laing Homes development was based on the following:

- Per discussions with the City, it was determined the majority of traffic will travel to and return from the north. It was assumed that vehicles traveling north will use the north driveway and vehicles traveling south will use the south driveway. A 70/30 split was used to distribute vehicles traveling to the north and to the south, where 70% use the Washington Street and Lake La Quinta Drive intersection and 30% use the south driveway.

- Per ITE Trip Generation Land Use Code 210, a 25/75 in-out distribution was used for the AM peak hour and a 63/37 in-out distribution was used for the PM peak hour.

- In general, housing developments produce lower weekend trips than weekday trips therefore yield a small impact on sites where the majority of traffic is weekend generated. The worst-case scenarios of AM and PM weekday peak hour trips were added to the redistributed weekend Church traffic volumes and used for the analysis.

PARKING GENERATION

The ITE Parking Generation book, 3rd Edition, was used to calculate the peak period parking demand of the existing Church facilities. Currently, the Church provides 184 parking spaces. Table 3 indicates the parking demand to be 122 spaces on a Sunday.

Table 3
St. Francis of Assisi Catholic Church
Average Peak Period Parking Demand vs. Seats on a Sunday
Land Use Code: 560
Number of Seats: 760

Average Rate (vehicles/seat)	**Average Parking Demand**
0.16	122

Chapter 9 of the City of La Quinta Municipal Code states that one parking space per three seats shall be provided for all "Assembly Uses."

Table 4
Saint Francis of Assisi Catholic Church
City of La Quinta Municipal Code, Chapter 9
Assembly Uses
Number of Seats: 760

Average Saturday Rate (vehicles/seat)	**Average Sunday Rate**	**Total Available Spaces** (existing + proposed)
0.333	253	590

As shown in Table 4, the City's Municipal Code requires 253 parking spaces for the Church and the total number of existing and proposed spaces is 590.

LEVEL OF SERVICE ANALYSIS

An Intersection Capacity Utilization (ICU) analysis was performed for the proposed traffic signal at the intersection of Washington Street and Lake La Quinta Drive. The Highway Capacity Manual (HCM) was used to analyze the proposed north driveway entrance.

The ICU method computes a Level of Service (LOS) for an entire intersection based on a volume to capacity (V/C) ratio summation for key conflicting movements. LOS is a relative measure of driver satisfaction with ranges from "A" (free flow: ICU less than 0.600) to "F" (forced flow: ICU value in excess of 1.000).

The following is a description of levels of service:

- LOS A (ICU less than 0.600) – Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.

- LOS B (ICU 0.601 to 0.700) – Operating speeds beginning to be affected by other traffic; between one and ten percent of the signal cycle have one or more vehicles which wait through more than one signal cycle during peak traffic periods.

- LOC C (ICU 0.701 to 0.800) – Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; recommended ideal design standard.

- LOS D (ICU 0.801 to 0.900) – Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; often used as design standard in urban areas.

- LOS E (ICU 0.901 to 1.000) – Capacity; the maximum traffic volume an intersection can accommodate; restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.

- LOS F (ICU over 1.000) – Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can dip to zero; traffic volume will be less than the volume which occurs at Level of Service E.

Based on the ICU analysis for Washington Street and Lake La Quinta Drive, the intersection will be operating at a LOS A during the Sunday peak hour (Table 5). This analysis is based on the combined redistributed Church traffic volumes and the weekday Laing Homes traffic volumes.

Table 5		
Intersection	**v/c**	**LOS**
Washington Street/North Driveway Entrance	0.409	A

The methodology used to analyze the north driveway entrance is described in the 2000 Highway Capacity Manual (HCM), published by the Transportation Research Board. This methodology was used because the driveway will be stop-controlled. LOS of stop-controlled intersections is defined in terms of delay, which is a measure of driver comfort, frustration, fuel consumption, and loss of time.

The HCM analysis method determines the available acceptable gaps in the major traffic stream used by vehicles crossing or turning through the stream. The number of available gaps affects the delay experienced by motorists required to yield. This delay is calculated and a LOS designation is assigned at incremental delay times. LOS A corresponds to little or no delay whereas LOS F corresponds to very long delays.

Based on the HCM analysis for the north driveway entrance, the access will be operating at LOS C during the Sunday peak hour (Table 6). As stated previously, this analysis is based on the combined redistributed Church traffic volumes and the weekday Laing Homes traffic volumes.

Table 6		
Intersection	**Eastbound Approach**	
	Delay	**LOS**
Washington Street/North Driveway Entrance	16.1	C

Note: delay is in seconds

LEFT-TURN AND RIGHT-TURN STORAGE CALCULATIONS

The City requested a queuing analysis at the following locations:

- Southbound Washington Street right turns at the north Church driveway entrance.
- Southbound Washington Street right turns at Lake La Quinta Drive.
- Northbound Washington Street left turns at Lake La Quinta Drive.

The City also requested the west leg of the Washington Street and Lake La Quinta Drive intersection be analyzed to determine whether the current striping design is adequate.

The queuing analysis was based on the peak 15-minute period of the existing redistributed Church traffic volumes and includes the 40% seasonal increase. The number of vehicles in the peak 15-minute period was then multiplied by four (4) to determine the number of vehicles per hour. Finally, the peak hour volume for the Laing Homes development was added to the Church to determine the total vehicles per hour. Peak Sunday Church volumes combined with peak weekday Laing Homes volumes present a worse case scenario to determine turning lane storage requirements.

In general, an accepted method to determine turning lane storage lengths is to provide 1 foot for every turning vehicle in the peak hour. The City utilizes the ITE Transportation and Land Development nomograph to determine storage lengths. The minimum storage length is 100 feet and 250 vehicles during the peak hour is the City's threshold for dual left turn lanes. A 90 second traffic signal cycle was used to determine the storage lengths at the Washington Street and Lake La Quinta Drive intersection.

Table 7
Recommended Storage Lengths based on Peak 15-minute Period

Turning Movement Location	Volume (vehicles/hr)	Minimum Storage Length (feet)	Recommended Storage Length (feet)
Southbound Washington Street right turns at north Church driveway entrance	180 (87)	170 (100)	225 (100)
Southbound Washington Street right turns at Lake La Quinta Drive	296 (161)	275 (150)	360 (200)
Northbound Washington Street left turns at Lake La Quinta Drive	405 (205)	210* (200)	280* (265)
Eastbound Lake La Quinta Drive left turns at Washington Street	297 (164)	155* (150)	200* (200)
Eastbound Lake La Quinta Drive right turns at Washington Street	236 (115)	170 (115)	225 (150)

Note: Numbers in parenthesis ( ) identify the peak hour volume and include the 40% seasonal increase and Laing Homes.
* Dual left turn lanes required.

Table 7 indicates the recommended storage lengths for each turning movement to range from 225 to 360 feet. The Church volume is based on the peak 15-minute period for Sunday traffic and does not reflect storage needs when the Church is not in session. During a normal weekday, the recommended storage lengths are more than adequate to accommodate the Laing Homes 15-minute peak period.

SUMMARY

This Traffic Impact Report has been completed to address trip generation, parking generation, level of service, and left turn/right turn storage requirements. The average number of existing Sunday trips generated by the Church is 545, which is greater than the calculated 479 trips found in the Trip Generation book. As such, the existing Church volumes were used as the basis for this analysis.

The average parking demand based on ITE parking rates is 122 spaces. The City of La Quinta requires 253 parking spaces per the La Quinta Municipal Code, Chapter 9. The existing parking lot currently has 184 spaces and the expansion will yield an additional 406 spaces for a total of 590. The expansion will exceed the parking requirements for the City of La Quinta and ITE parking generation rates.

The ICU analysis for Washington Street and Lake La Quinta Drive indicates the intersection will operate at a LOS A during the Sunday peak hour and exceeds the recommended ideal design standard. The HCM analysis for Washington Street and the north Church driveway entrance indicates a LOS C and a delay of 16.1 seconds will be experienced during the Sunday peak hour.

The left-turn and right-turn storage lengths were determined based on the redistributed traffic volumes. The recommended storage lengths are:

- 225 feet for southbound Washington Street right turns at the north Church driveway entrance
- 360 feet for southbound Washington Street right turns at Lake La Quinta Drive
- 280 feet for northbound Washington Street left turns at Lake La Quinta Drive. Dual left turn lanes are required.

Based on the 50 MPH posted speed limit on Washington Street, it is further recommended that 150 feet reverse curves be used for the turning lane bay tapers.

Should you have any questions regarding this study, please contact me at (562) 908-6221

Sincerely,

WILLDAN

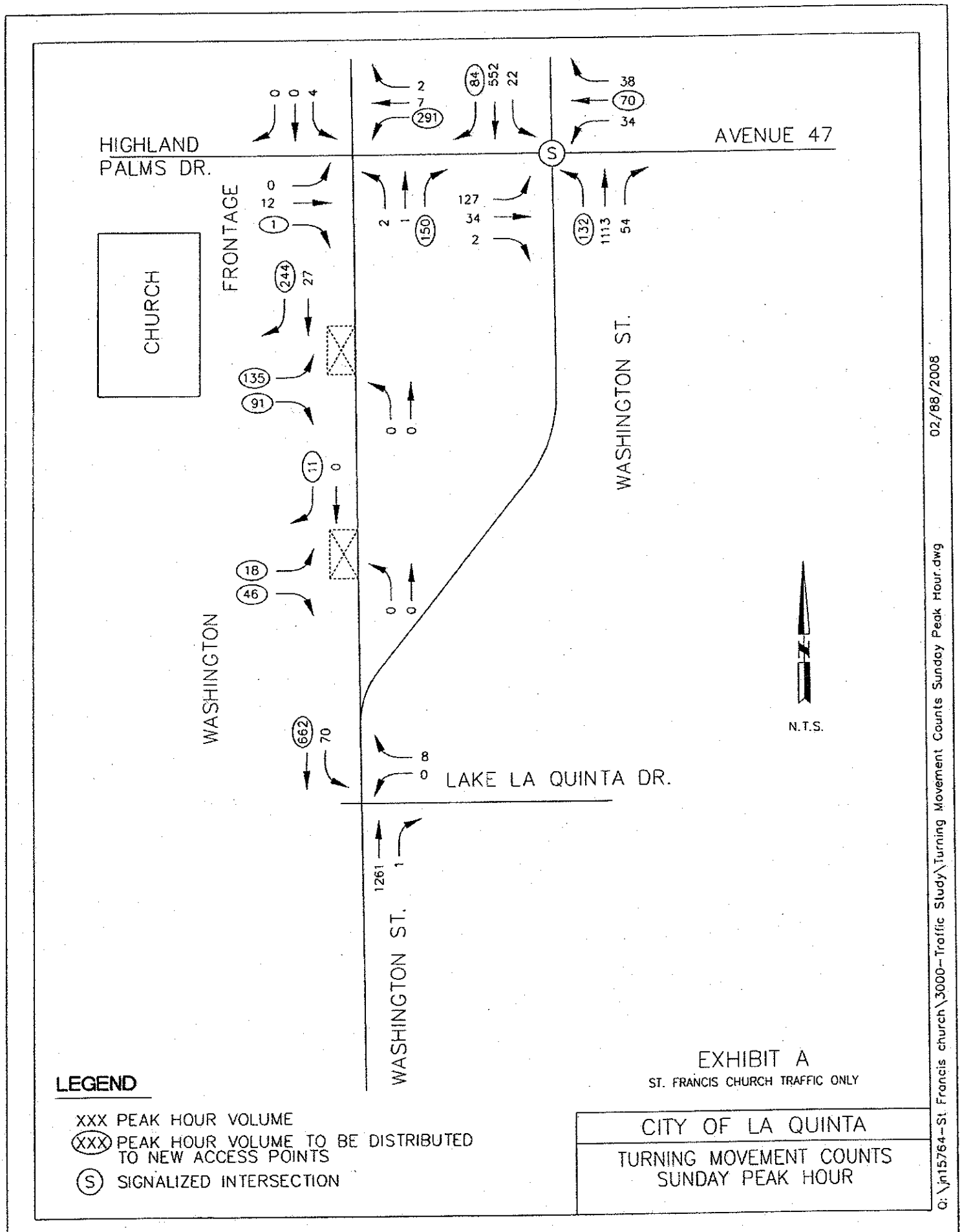
FOR

Reggie Greene
Senior Design Engineer

RG:mec (06-160)
15764/3000/L01

APPENDIX

- Exhibits
- ICU Calculations
- HMC Calculations
- ITE Transportation and Land Development Nomograph
- Traffic Counts



LEGEND

XXX PEAK HOUR VOLUME

(XXX) PEAK HOUR VOLUME TO BE DISTRIBUTED TO NEW ACCESS POINTS

(S) SIGNALIZED INTERSECTION

EXHIBIT A

ST. FRANCIS CHURCH TRAFFIC ONLY

CITY OF LA QUINTA
TURNING MOVEMENT COUNTS SUNDAY PEAK HOUR

02/88/2008

Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg

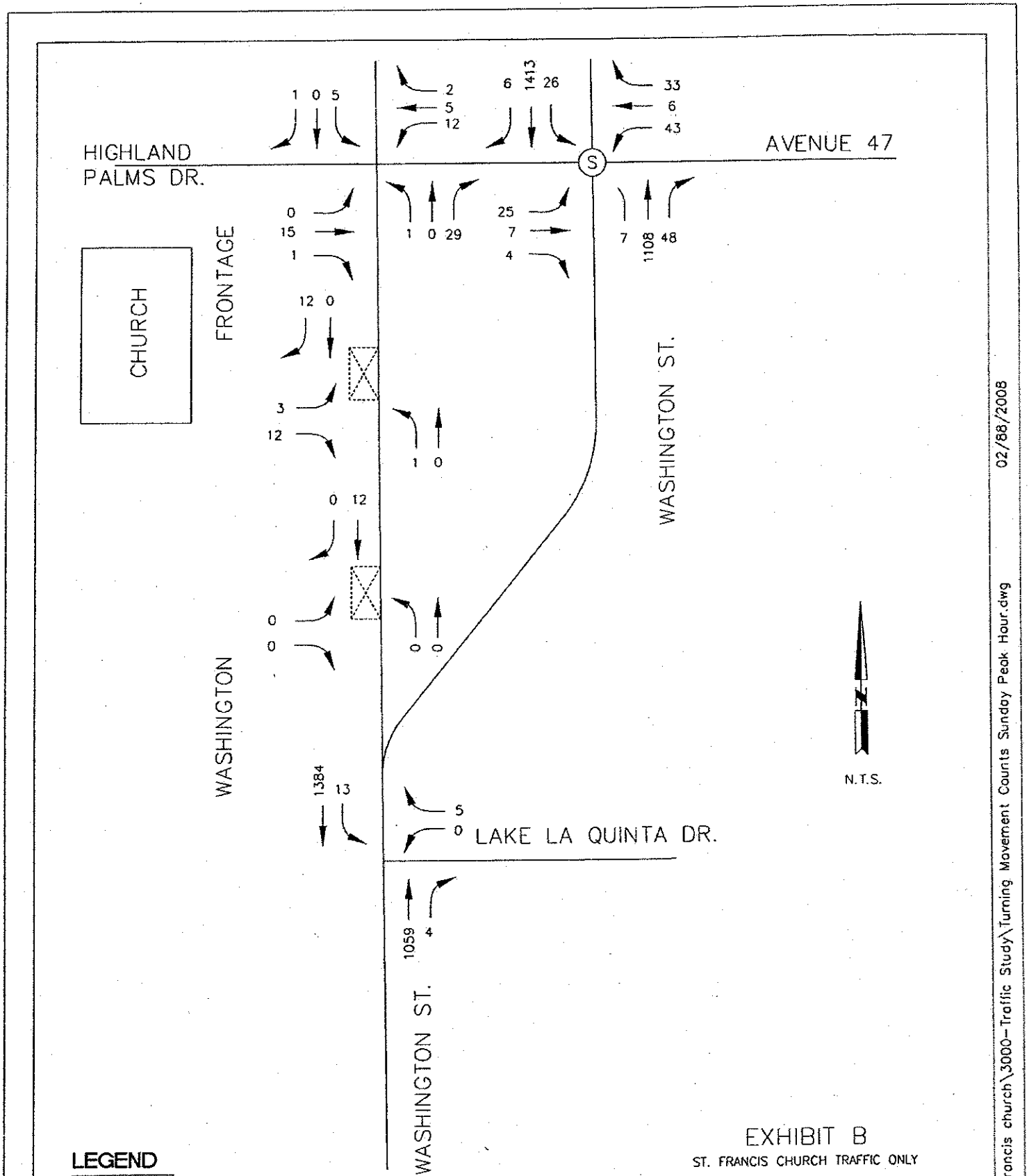


EXHIBIT B

ST. FRANCIS CHURCH TRAFFIC ONLY

LEGEND

XXX PEAK HOUR VOLUME

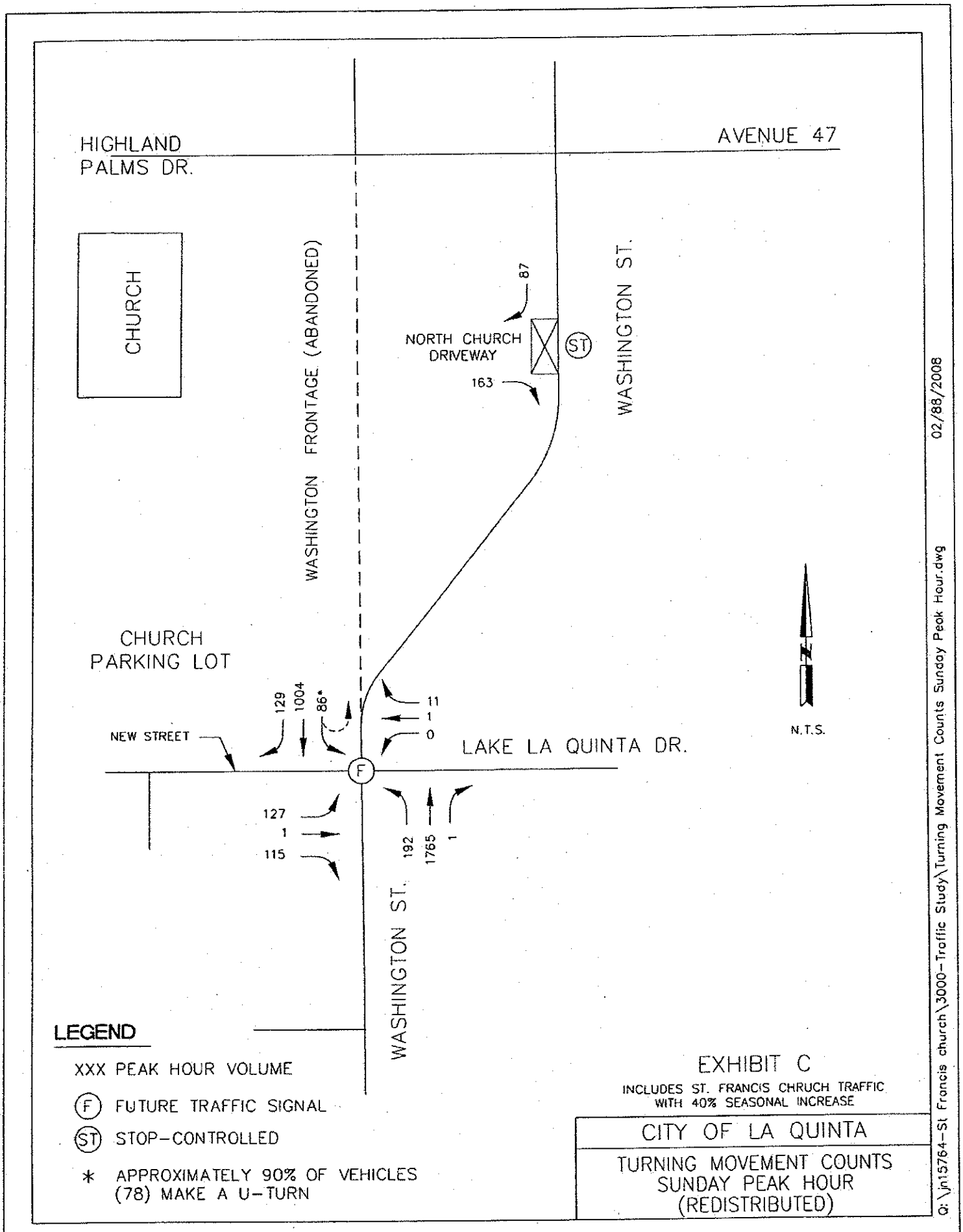
(S) SIGNALIZED INTERSECTION

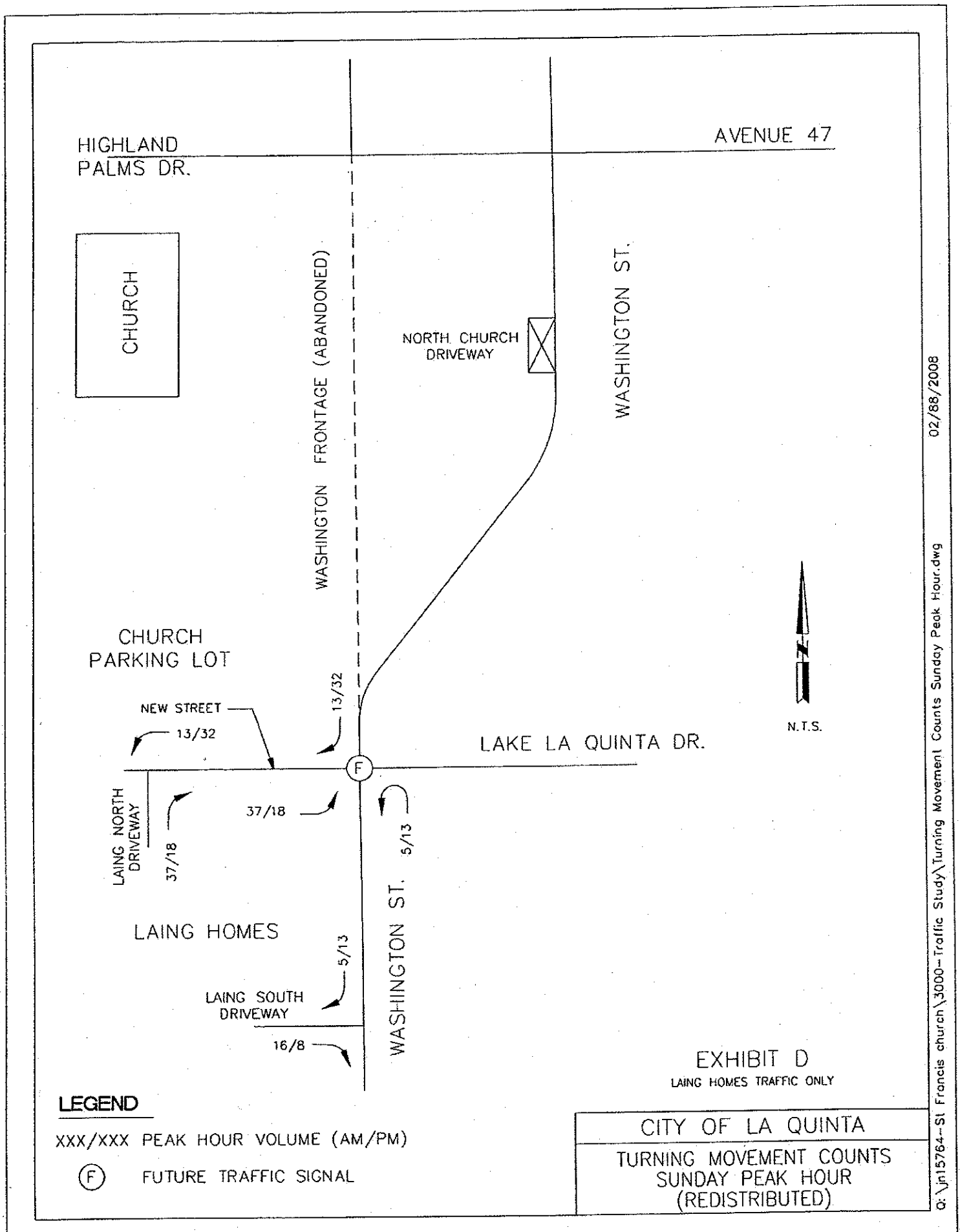
CITY OF LA QUINTA

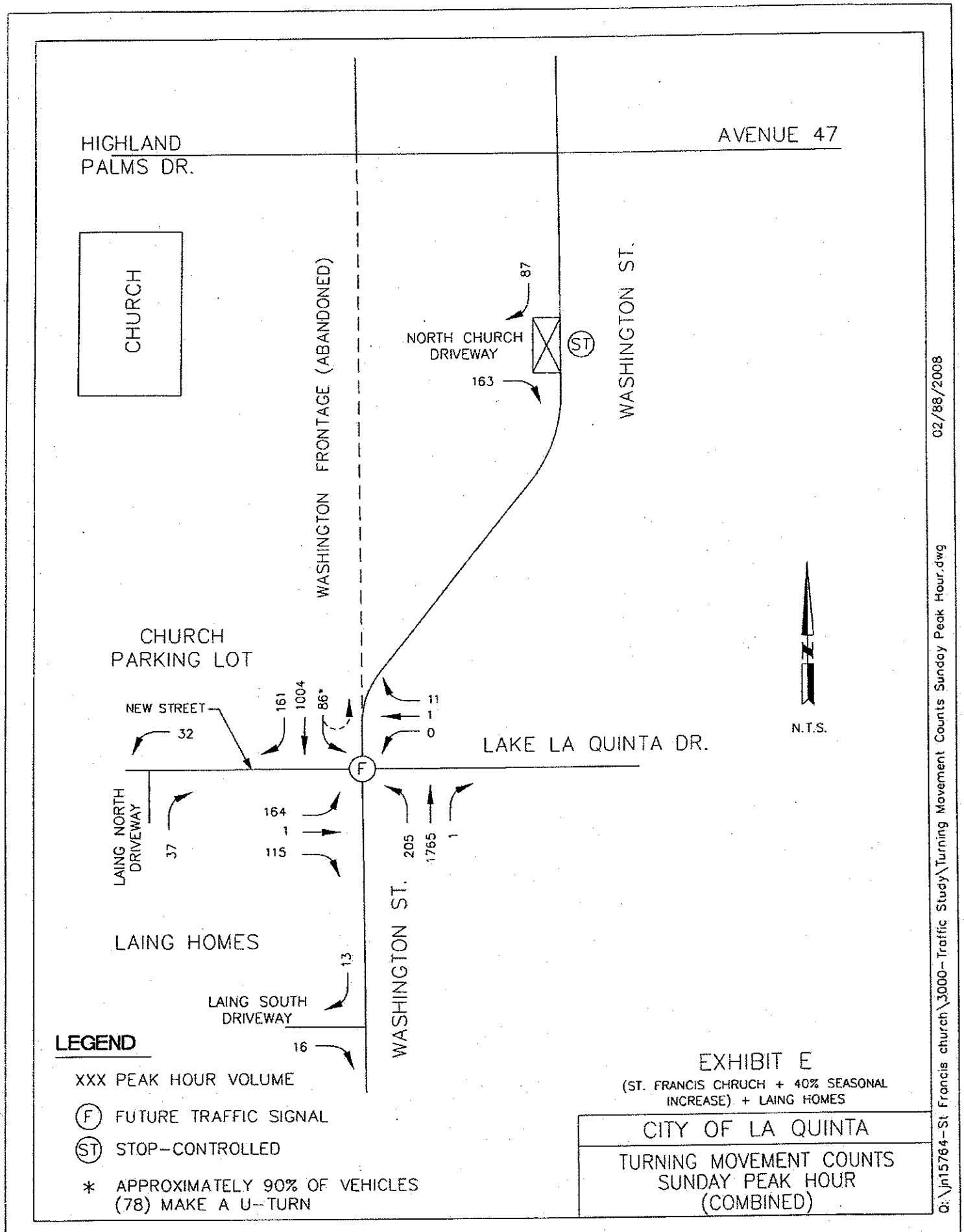
TURNING MOVEMENT COUNTS
SATURDAY PEAK HOUR

02/88/2008

Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg


HIGHLAND PALMS DR.
AVENUE 47
CHURCH
WASHINGTON FRONTAGE (ABANDONED)
87
NORTH CHURCH DRIVEWAY
ST
163
WASHINGTON ST.
CHURCH PARKING LOT
129
1004
86*
11
1
0
NEW STREET
LAKE LA QUINTA DR.
F
127
1
115
192
1765
1
WASHINGTON ST.
N.T.S.
LEGEND
XXX PEAK HOUR VOLUME
F FUTURE TRAFFIC SIGNAL
ST STOP-CONTROLLED
* APPROXIMATELY 90% OF VEHICLES (78) MAKE A U-TURN
EXHIBIT C
INCLUDES ST. FRANCIS CHRUCH TRAFFIC WITH 40% SEASONAL INCREASE
CITY OF LA QUINTA
TURNING MOVEMENT COUNTS SUNDAY PEAK HOUR (REDISTRIBUTED)
02/88/2008
Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg


HIGHLAND PALMS DR.
AVENUE 47
CHURCH
WASHINGTON FRONTAGE (ABANDONED)
NORTH CHURCH DRIVEWAY
WASHINGTON ST.
CHURCH PARKING LOT
NEW STREET
13/32
13/32
LAKE LA QUINTA DR.
F
LAING NORTH DRIVEWAY
37/18
37/18
5/13
WASHINGTON ST.
LAING HOMES
5/13
LAING SOUTH DRIVEWAY
16/8
N.T.S.
EXHIBIT D
LAING HOMES TRAFFIC ONLY
LEGEND
XXX/XXX PEAK HOUR VOLUME (AM/PM)
F FUTURE TRAFFIC SIGNAL
CITY OF LA QUINTA
TURNING MOVEMENT COUNTS
SUNDAY PEAK HOUR
(REDISTRIBUTED)
02/88/2008
Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg


HIGHLAND PALMS DR.
AVENUE 47
CHURCH
WASHINGTON FRONTAGE (ABANDONED)
87
NORTH CHURCH DRIVEWAY
ST
163
WASHINGTON ST.
CHURCH PARKING LOT
NEW STREET
32
161
1004
86*
11
1
0
LAKE LA QUINTA DR.
F
LAING NORTH DRIVEWAY
37
164
1
115
205
1765
1
WASHINGTON ST.
LAING HOMES
13
LAING SOUTH DRIVEWAY
16
N.T.S.
LEGEND
XXX PEAK HOUR VOLUME
(F) FUTURE TRAFFIC SIGNAL
(ST) STOP-CONTROLLED
* APPROXIMATELY 90% OF VEHICLES (78) MAKE A U-TURN
EXHIBIT E
(ST. FRANCIS CHRUCH + 40% SEASONAL INCREASE) + LAING HOMES
CITY OF LA QUINTA
TURNING MOVEMENT COUNTS
SUNDAY PEAK HOUR
(COMBINED)
02/88/2008
Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg

INTERSECTION CAPACITY UTILIZATION CALCULATION SHEET

Intersection: Washington Street and north driveway entrance (St. Francis Church)	
Count Date: Sunday June 3, 2007	**Peak Hour:** 2:30 - 3:30pm
Analyst: R. Greene	**Agency:** City of La Quinta

Movement	Volume	Number of Lanes	Capacity	V/C Ratio		Total
NB Left	205	1	1900	0.108		
NB Thru	1766	3	5700	0.310	0.310	
NB Right	0	0	0	0.000		0.355
SB Left	86	1	1900	0.045	0.045	
SB Thru	1004	3	5700	0.176		
SB Right	161	1	1900	0.085		
EB Left	164	2	3420	0.048	0.048	
EB Thru	1	1	1900	0.001		
EB Right	115	1	1900	0.061		0.054
WB Left	0	1	1900	0.000		
WB Thru	12	1	1900	0.006	0.006	
WB Right	0	0	0	0.000		
Sum of Critical V/C Ratios						0.409
Adjustment for Lost Time						0.100
Intersection Capacity Utilization (ICU)						0.509
Level of Service (LOS) - Refer to table below						A

Notes:

1. Per lane Capacity = 1,900 VPH
2. Dual turn lane Capacity = 3,420 VPH
3. Intersection Type: 4-Way
   T X
   Split N/S
   Split E/W

Maximum V/C Ratio
0.6
0.7
0.8
0.9
1.0
n/a

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*R. Greene*
Agency/Co.	*City of La Quinta*
Date Performed	*11/08/07*
Analysis Time Period	*10:15 - 11:15AM*

Site Information

Intersection	*Washington St./No. Driveway*
Jurisdiction	
Analysis Year	*2007*

Project Description

East/West Street: *North Driveway Entrance* | North/South Street: *Washington Street*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)					*1251*	*87*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*163*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	–	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*2*	*1*
Configuration					*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)			*163*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*1251*	*87*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*1*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*1*	*0*	*0*	*0*
Configuration			*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration								*R*
v (veh/h)								*163*
C (m) (veh/h)								*486*
v/c								*0.34*
95% queue length								*1.46*
Control Delay (s/veh)								*16.1*
LOS								*C*

Approach Delay (s/veh)	--	--		16.1
Approach LOS	--	--		C

TABLE 5-7
Minimum Spacing Between Median Openings

Speed (mph)	Minimum Spacing (feet)	
	Absolute[a]	Desirable[b]
30	190	370
35	240	460
40	300	530
45	360	670
50	430	780
55	510	910

SOURCE: Vergil G. Stover, William G. Adkins, and John C. Goodknight [22, p. 19].

[a] 8.0 ft/sec² average deceleration rate and 10 mph deceleration in through-traffic lane.

[b] 6.5 ft/sec² average deceleration rate and no deceleration in through-traffic lane.

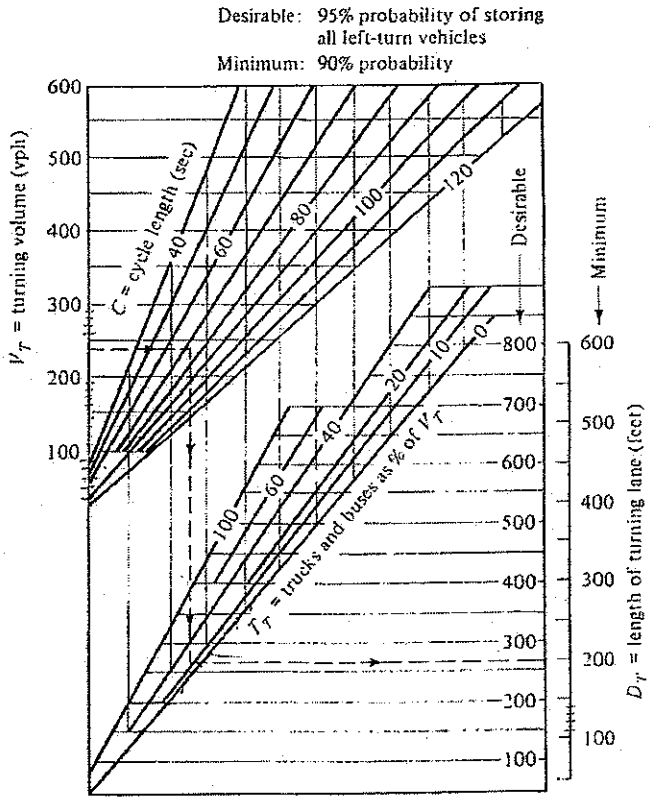


Figure 5-14 Nomograph for a single-lane left-turn storage at signalized intersections. As illustrated, with a left-turn volume of 240 vehicles per hour (vph), a 70-second cycle, and 10% trucks, a storage length of about 260 feet is required for desirable conditions and about 200 feet for a minimum. These storage lengths would accommodate 10 or 11 vehicles for the desirable conditions and about 8 for the minimum. The figure can be used to estimate the storage length (excluding taper) of a double left-turn bay by dividing by 1.8. Thus, for the desirable conditions, a double left-turn bay of about 145 feet (excluding taper) would be required. SOURCE: Northwestern University Traffic Institute [25].

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SAT
Site Code : 00724612
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

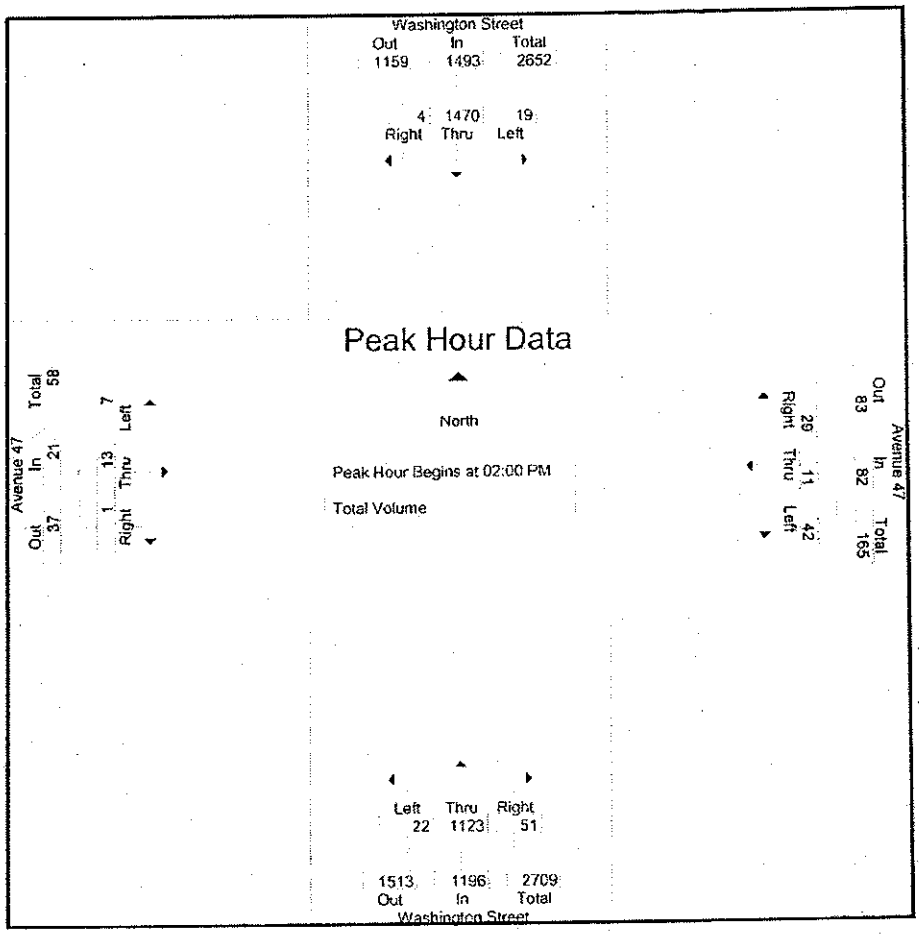
	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:30 PM	5	226	4	235	5	2	8	15	1	207	11	219	0	0	0	0	469
01:45 PM	2	328	4	334	9	3	5	17	10	310	10	330	2	2	0	4	685
Total	7	554	8	569	14	5	13	32	11	517	21	549	2	2	0	4	1154
02:00 PM	2	319	1	322	11	1	8	20	19	294	13	326	1	5	1	7	675
02:15 PM	3	385	0	388	9	7	11	27	3	265	16	284	0	4	0	4	703
02:30 PM	8	364	1	373	11	2	8	21	0	283	19	302	4	4	0	8	704
02:45 PM	6	402	2	410	11	1	2	14	0	281	3	284	2	0	0	2	710
Total	19	1470	4	1493	42	11	29	82	22	1123	51	1196	7	13	1	21	2792
03:00 PM	4	308	1	313	10	0	14	24	1	247	13	261	2	2	0	4	602
03:15 PM	8	339	2	349	11	3	9	23	6	297	13	316	17	1	4	22	710
Grand Total	38	2671	15	2724	77	19	65	161	40	2184	98	2322	28	18	5	51	5258
Apprch %	1.4	98.1	0.6		47.8	11.8	40.4		1.7	94.1	4.2		54.9	35.3	9.8		
Total %	0.7	50.8	0.3	51.8	1.5	0.4	1.2	3.1	0.8	41.5	1.9	44.2	0.5	0.3	0.1	1	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	2	319	1	322	11	1	8	20	19	294	13	326	1	5	1	7	675
02:15 PM	3	385	0	388	9	7	11	27	3	265	16	284	0	4	0	4	703
02:30 PM	8	364	1	373	11	2	8	21	0	283	19	302	4	4	0	8	704
02:45 PM	6	402	2	410	11	1	2	14	0	281	3	284	2	0	0	2	710
Total Volume	19	1470	4	1493	42	11	29	82	22	1123	51	1196	7	13	1	21	2792
% App. Total	1.3	98.5	0.3		51.2	13.4	35.4		1.8	93.9	4.3		33.3	61.9	4.8		
PHF	.594	.914	.500	.910	.955	.393	.659	.759	.289	.955	.671	.917	.438	.650	.250	.656	.983

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SAT
Site Code : 00724612
Start Date : 5/26/2007
Page No : 2



Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	02:00 PM				02:15 PM				01:45 PM				02:30 PM			
+0 mins.	2	319	1	322	9	7	11	27	10	310	10	330	4	4	0	8
+15 mins.	3	385	0	388	11	2	8	21	19	294	13	326	2	0	0	2
+30 mins.	8	364	1	373	11	1	2	14	3	265	16	284	2	2	0	4
+45 mins.	6	402	2	410	10	0	14	24	0	283	19	302	17	1	4	22
Total Volume	19	1470	4	1493	41	10	35	86	32	1152	58	1242	25	7	4	36
% App. Total	1.3	98.5	0.3		47.7	11.6	40.7		2.6	92.8	4.7		69.4	19.4	11.1	
PHF	.594	.914	.500	.910	.932	.357	.625	.796	.421	.929	.763	.941	.368	.438	.250	.409

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SUN
Site Code : 00724611
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
08:30 AM	3	94	18	115	4	8	2	14	8	207	2	217	54	17	1	72	418
08:45 AM	3	69	42	114	2	8	7	17	32	184	7	223	5	3	1	9	363
Total	6	163	60	229	6	16	9	31	40	391	9	440	59	20	2	81	781
09:00 AM	6	100	61	167	0	27	8	35	56	214	4	274	6	4	0	10	486
09:15 AM	2	107	15	124	2	17	7	26	23	231	10	264	2	2	0	4	418
09:30 AM	1	110	4	115	2	3	0	5	2	208	6	216	1	0	0	1	337
09:45 AM	1	105	1	107	7	1	6	14	4	246	6	256	3	2	0	5	382
Total	10	422	81	513	11	48	21	80	85	899	26	1010	12	8	0	20	1623
10:00 AM	9	132	1	142	4	5	13	22	13	234	11	258	7	8	1	16	438
10:15 AM	6	94	4	104	10	3	4	17	3	264	13	280	74	24	2	100	501
10:30 AM	9	171	14	194	7	9	11	27	15	297	18	330	33	6	0	39	590
10:45 AM	6	143	40	189	10	43	9	62	63	319	14	396	12	1	0	13	660
Total	30	540	59	629	31	60	37	128	94	1114	56	1264	126	39	3	168	2189
11:00 AM	1	144	24	169	7	14	14	35	51	233	9	293	8	3	0	11	508
11:15 AM	11	139	5	155	8	4	19	31	14	230	13	257	4	0	0	4	447
11:30 AM	5	189	5	199	9	2	16	27	2	259	15	276	3	1	0	4	506
11:45 AM	6	180	5	191	7	7	11	25	6	264	20	290	5	1	0	6	512
Total	23	652	39	714	31	27	60	118	73	986	57	1116	20	5	0	25	1973
12:00 PM	6	176	3	185	7	3	11	21	14	268	18	300	19	9	1	29	535
12:15 PM	8	219	5	232	11	8	16	35	20	296	19	335	57	10	1	68	670
Grand Total	83	2172	247	2502	97	162	154	413	326	3954	185	4465	293	91	7	391	7771
Apprch %	3.3	86.8	9.9		23.5	39.2	37.3		7.3	88.6	4.1		74.9	23.3	1.8		
Total %	1.1	28	3.2	32.2	1.2	2.1	2	5.3	4.2	50.9	2.4	57.5	3.8	1.2	0.1	5	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 10:15 AM																	
10:15 AM	6	94	4	104	**10**	3	4	17	3	264	13	280	**74**	**24**	**2**	**100**	501
10:30 AM	**9**	**171**	14	**194**	7	9	11	27	15	297	**18**	330	33	6	0	39	590
10:45 AM	6	143	**40**	189	10	**43**	9	**62**	**63**	**319**	14	**396**	12	1	0	13	**660**
11:00 AM	1	144	24	169	7	14	14	35	51	233	9	293	8	3	0	11	508
Total Volume	22	552	82	656	34	69	38	141	132	1113	54	1299	127	34	2	163	2259
% App. Total	3.4	84.1	12.5		24.1	48.9	27		10.2	85.7	4.2		77.9	20.9	1.2		
PHF	.611	.807	.513	.845	.850	.401	.679	.569	.524	.872	.750	.820	.429	.354	.250	.408	.856

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SUN
Site Code : 00724611
Start Date : 6/3/2007
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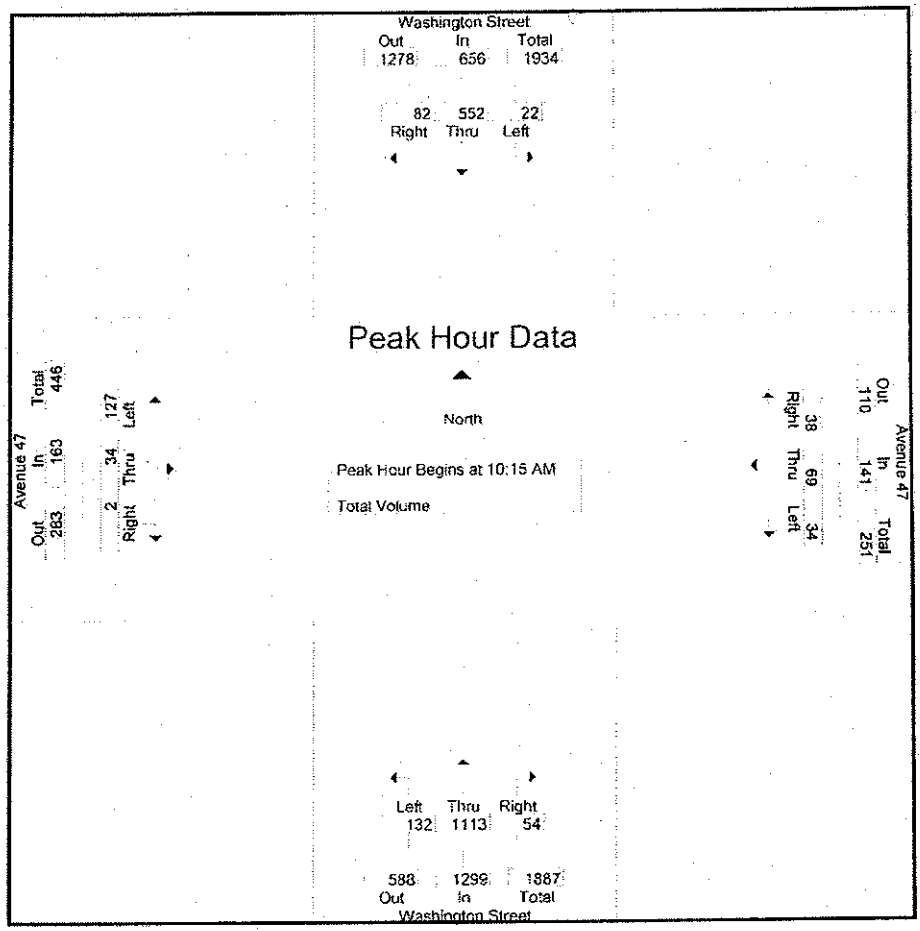

Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:30 AM				10:30 AM				10:15 AM				10:50 AM			
+0 mins.	5	189	5	199	7	9	11	27	3	264	13	280	7	8	1	16
+15 mins.	6	180	5	191	10	43	9	62	15	297	18	330	74	24	2	100
+30 mins.	6	176	3	185	7	14	14	35	63	319	14	396	33	6	0	39
+45 mins.	8	219	5	232	8	4	19	31	51	233	9	293	12	1	0	13
Total Volume	25	764	18	807	32	70	53	155	132	1113	54	1299	126	39	3	168
% App. Total	3.1	94.7	2.2		20.6	45.2	34.2		10.2	85.7	4.2		75	23.2	1.8	
PHF	.781	.872	.900	.870	.800	.407	.697	.625	.524	.872	.750	.820	.426	.406	.375	.420

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

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

File Name : LQWALLSAT
Site Code : 00724613
Start Date : 5/26/2007
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Groups Printed- Total Volume

	Washington Street Southbound			Lake La Quinta Drive Westbound			Washington Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
01:30 PM	4	225	229	0	2	2	230	2	232	463
01:45 PM	5	341	346	0	1	1	315	2	317	664
Total	9	566	575	0	3	3	545	4	549	1127
02:00 PM	8	352	360	0	4	4	313	2	315	679
02:15 PM	4	369	373	0	6	6	254	1	255	634
02:30 PM	5	338	343	0	1	1	293	0	293	637
02:45 PM	3	370	373	0	2	2	252	3	255	630
Total	20	1429	1449	0	13	13	1112	6	1118	2580
03:00 PM	1	332	333	0	1	1	269	0	269	603
03:15 PM	4	344	348	0	1	1	245	1	246	595
Grand Total	34	2671	2705	0	18	18	2171	11	2182	4905
Apprch %	1.3	98.7		0	100		99.5	0.5		
Total %	0.7	54.5	55.1	0	0.4	0.4	44.3	0.2	44.5	

	Washington Street Southbound			Lake La Quinta Drive Westbound			Washington Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:45 PM										
01:45 PM	5	**341**	346	0	1	1	**315**	2	**317**	664
02:00 PM	**8**	352	360	0	4	4	313	2	315	**679**
02:15 PM	4	**369**	**373**	0	**6**	**6**	254	1	255	634
02:30 PM	5	338	343	0	1	1	293	0	293	637
Total Volume	22	1400	1422	0	12	12	1175	5	1180	2614
% App. Total	1.5	98.5		0	100		99.6	0.4		
PHF	.688	.949	.953	.000	.500	.500	.933	.625	.931	.962

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

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

File Name : LQWALLSAT
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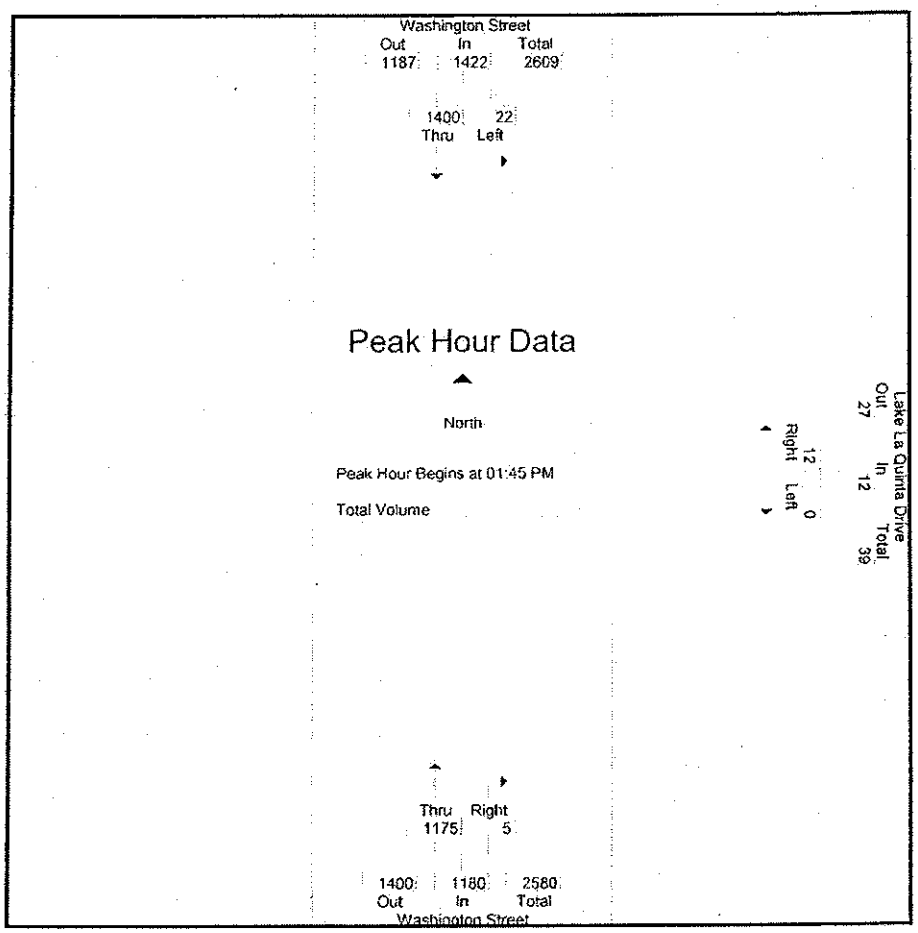

Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM			01:30 PM			01:45 PM		
+0 mins.	8	352	360	0	2	2	315	2	317
+15 mins.	4	369	373	0	1	1	313	2	315
+30 mins.	5	338	343	0	4	4	254	1	255
+45 mins.	3	370	373	0	6	6	293	0	293
Total Volume	20	1429	1449	0	13	13	1175	5	1180
% App. Total	1.4	98.6		0	100		99.6	0.4	
PHF	.625	.966	.971	.000	.542	.542	.933	.625	.931

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

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

File Name : LQWALLSUN
Site Code : 00724613
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound			Lake La Quinta Drive Westbound			Washington Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
08:30 AM	22	155	177	0	2	2	202	0	202	381
08:45 AM	7	85	92	0	2	2	222	2	224	318
Total	29	240	269	0	4	4	424	2	426	699
09:00 AM	5	86	91	0	4	4	286	0	286	381
09:15 AM	3	118	121	0	3	3	226	1	227	351
09:30 AM	3	99	102	0	2	2	212	1	213	317
09:45 AM	8	103	111	0	0	0	253	0	253	364
Total	19	406	425	0	9	9	977	2	979	1413
10:00 AM	4	153	157	0	1	1	242	0	242	400
10:15 AM	44	187	231	0	0	0	283	0	283	514
10:30 AM	13	175	188	0	2	2	297	1	298	488
10:45 AM	10	158	168	0	2	2	396	0	396	566
Total	71	673	744	0	5	5	1218	1	1219	1968
11:00 AM	3	142	145	0	4	4	285	0	285	434
11:15 AM	4	140	144	0	0	0	260	2	262	406
11:30 AM	5	197	202	0	4	4	260	0	260	466
11:45 AM	7	180	187	0	0	0	263	2	265	452
Total	19	659	678	0	8	8	1068	4	1072	1758
12:00 PM	16	177	193	0	6	6	280	0	280	479
12:15 PM	47	306	353	0	2	2	279	1	280	635
Grand Total	201	2461	2662	0	34	34	4246	10	4256	6952
Apprch %	7.6	92.4		0	100		99.8	0.2		
Total %	2.9	35.4	38.3	0	0.5	0.5	61.1	0.1	61.2	

	Washington Street Southbound			Lake La Quinta Drive Westbound			Washington Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:30 AM										
11:30 AM	5	197	202	0	4	4	260	0	260	466
11:45 AM	7	180	187	0	0	0	263	2	265	452
12:00 PM	16	177	193	0	6	6	280	0	280	479
12:15 PM	47	306	353	0	2	2	279	1	280	635
Total Volume	75	860	935	0	12	12	1082	3	1085	2032
% App. Total	8	92		0	100		99.7	0.3		
PHF	.399	.703	.662	.000	.500	.500	.966	.375	.969	.800

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
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File Name : LQWALLSUN
Site Code : 00724613
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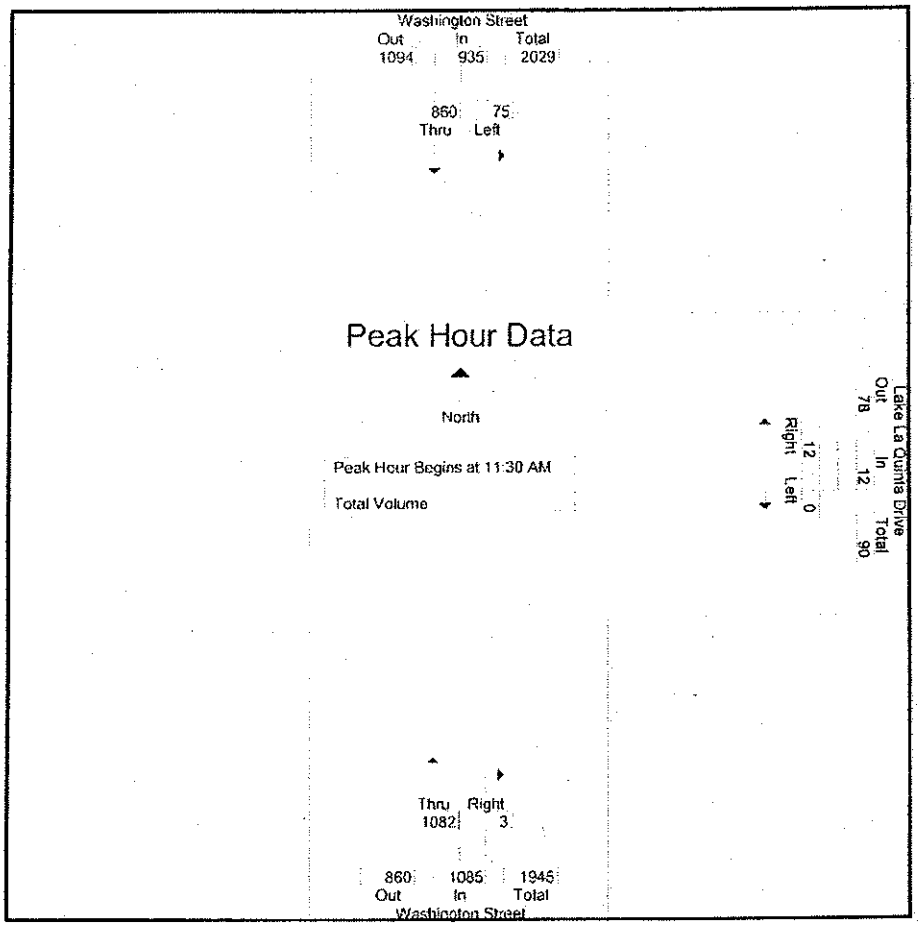

Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:30 AM			11:30 AM			10:15 AM		
+0 mins.	5	197	202	0	4	4	283	0	283
+15 mins.	7	180	187	0	0	0	297	1	298
+30 mins.	16	177	193	0	6	6	396	0	396
+45 mins.	47	306	353	0	2	2	285	0	285
Total Volume	75	860	935	0	12	12	1261	1	1262
% App. Total	8	92		0	100		99.9	0.1	
PHF	.399	.703	.662	.000	.500	.500	.796	.250	.797

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47 / Highland Palms Drive
Weather: Sunny

File Name : LQWA47HSAT
Site Code : 00724687
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:30 PM	1	0	0	1	5	2	0	7	0	1	0	1	3	0	1	4	13
01:45 PM	1	1	0	2	16	1	0	17	0	0	1	1	0	2	0	2	22
Total	2	1	0	3	21	3	0	24	0	1	1	2	3	2	1	6	35
02:00 PM	0	0	0	0	17	3	1	21	0	0	2	2	0	4	0	4	27
02:15 PM	1	0	0	1	6	2	0	8	0	0	1	1	0	5	0	5	15
02:30 PM	2	0	0	2	1	1	1	3	0	0	0	0	0	7	0	7	12
02:45 PM	1	0	1	2	2	1	0	3	0	0	4	4	0	2	1	3	12
Total	4	0	1	5	26	7	2	35	0	0	7	7	0	18	1	19	66
03:00 PM	1	0	0	1	1	1	0	2	0	0	12	12	0	2	0	2	17
03:15 PM	1	0	0	1	8	2	1	11	1	0	12	13	0	4	0	4	29
Grand Total	8	1	1	10	56	13	3	72	1	1	32	34	3	26	2	31	147
Apprch %	80	10	10		77.8	18.1	4.2		2.9	2.9	94.1		9.7	83.9	6.5		
Total %	5.4	0.7	0.7	6.8	38.1	8.8	2	49	0.7	0.7	21.8	23.1	2	17.7	1.4	21.1	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:30 PM																	
01:30 PM	1	0	0	1	5	2	0	7	0	1	0	1	3	0	1	4	13
01:45 PM	1	1	0	2	16	1	0	17	0	0	1	1	0	2	0	2	22
02:00 PM	0	0	0	0	17	3	1	21	0	0	2	2	0	4	0	4	27
02:15 PM	1	0	0	1	6	2	0	8	0	0	1	1	0	5	0	5	15
Total Volume	3	1	0	4	44	8	1	53	0	1	4	5	3	11	1	15	77
% App. Total	75	25	0		83	15.1	1.9		0	20	80		20	73.3	6.7		
PHF	.750	.250	.000	.500	.647	.667	.250	.631	.000	.250	.500	.625	.250	.550	.250	.750	.713

Counts Unlimited Inc.
25424 Jaclyn Avenue
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951-247-6716

City of La Quinta
N/S: Washington Street
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File Name : LQWA47HSAT
Site Code : 00724687
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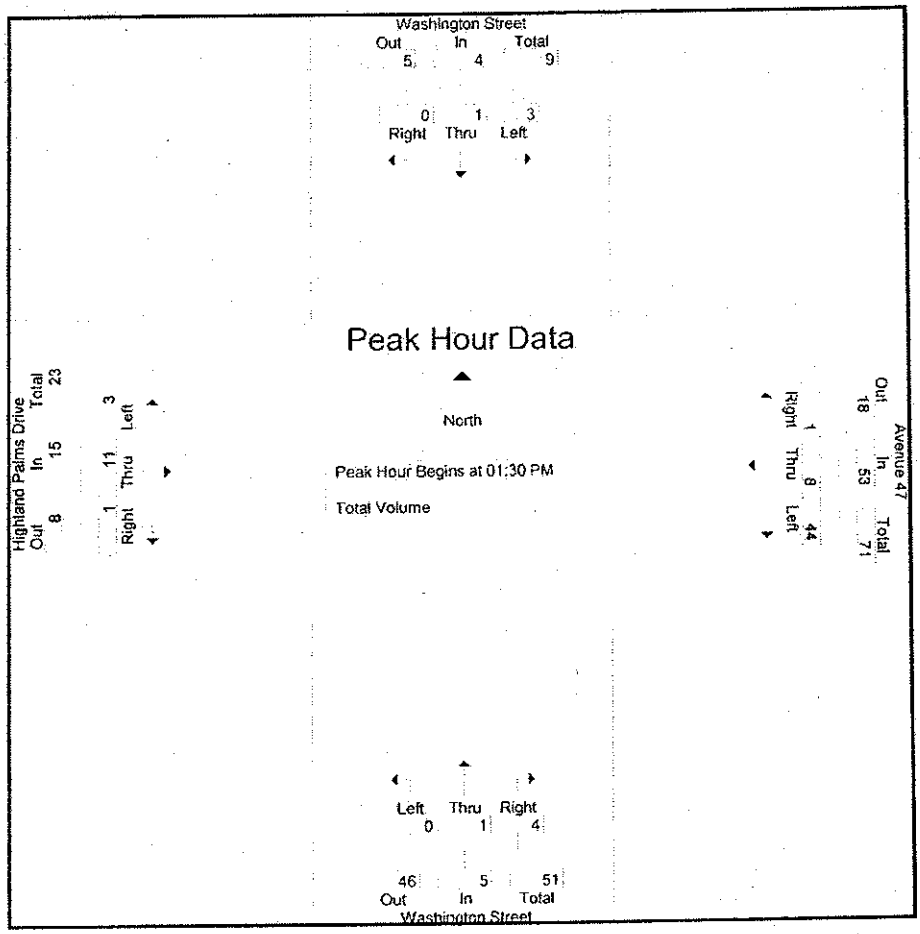

Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:15 PM				01:30 PM				02:30 PM				02:00 PM			
+0 mins.	1	0	0	1	5	2	0	7	0	0	0	0	0	4	0	4
+15 mins.	2	0	0	2	16	1	0	17	0	0	4	4	0	5	0	5
+30 mins.	1	0	1	2	17	3	1	21	0	0	12	12	0	7	0	7
+45 mins.	1	0	0	1	6	2	0	8	1	0	12	13	0	2	1	3
Total Volume	5	0	1	6	44	8	1	53	1	0	28	29	0	18	1	19
% App. Total	83.3	0	16.7		83	15.1	1.9		3.4	0	96.6		0	94.7	5.3	
PHF	.625	.000	.250	.750	.647	.667	.250	.631	.250	.000	.583	.558	.000	.643	.250	.679

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47 / Highland Palms Drive
Weather: Sunny

File Name : LQWA47HSUN
Site Code : 00724612
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
08:30 AM	2	0	0	2	28	2	0	30	1	0	66	67	0	3	1	4	103
08:45 AM	0	1	0	1	89	2	0	91	0	0	10	10	0	0	1	1	103
Total	2	1	0	3	117	4	0	121	1	0	76	77	0	3	2	5	206
09:00 AM	0	1	0	1	141	3	1	145	0	0	6	6	0	0	0	0	152
09:15 AM	1	0	0	1	46	3	1	50	0	0	2	2	0	3	0	3	56
09:30 AM	0	1	0	1	8	1	0	9	0	0	2	2	0	0	0	0	12
09:45 AM	0	0	0	0	2	0	1	3	0	0	1	1	0	0	0	0	4
Total	1	2	0	3	197	7	3	207	0	0	11	11	0	3	0	3	224
10:00 AM	1	0	0	1	10	2	2	14	0	0	22	22	0	2	0	2	39
10:15 AM	2	0	0	2	11	2	0	13	0	1	93	94	0	6	0	6	115
10:30 AM	0	0	0	0	46	1	0	47	0	0	41	41	0	4	0	4	92
10:45 AM	2	0	0	2	147	3	0	150	2	0	7	9	0	1	1	2	163
Total	5	0	0	5	214	8	2	224	2	1	163	166	0	13	1	14	409
11:00 AM	0	0	0	0	87	1	2	90	0	0	9	9	0	1	0	1	100
11:15 AM	0	0	0	0	25	0	0	25	0	0	4	4	0	0	0	0	29
11:30 AM	2	0	0	2	6	0	0	6	0	0	4	4	0	1	0	1	13
11:45 AM	1	0	1	2	13	1	2	16	0	0	2	2	0	0	0	0	20
Total	3	0	1	4	131	2	4	137	0	0	19	19	0	2	0	2	162
12:00 PM	1	0	0	1	19	0	0	19	0	0	34	34	0	4	0	4	58
12:15 PM	2	0	0	2	32	2	1	35	0	0	93	93	1	6	0	7	137
Grand Total	14	3	1	18	710	23	10	743	3	1	396	400	1	31	3	35	1196
Apprch %	77.8	16.7	5.6		95.6	3.1	1.3		0.8	0.2	99		2.9	88.6	8.6		
Total %	1.2	0.3	0.1	1.5	59.4	1.9	0.8	62.1	0.3	0.1	33.1	33.4	0.1	2.6	0.3	2.9	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 10:15 AM																	
10:15 AM	2	0	0	2	11	2	0	13	0	1	93	94	0	6	0	6	115
10:30 AM	0	0	0	0	46	1	0	47	0	0	41	41	0	4	0	4	92
10:45 AM	2	0	0	2	147	3	0	150	2	0	7	9	0	1	1	2	163
11:00 AM	0	0	0	0	87	1	2	90	0	0	9	9	0	1	0	1	100
Total Volume	4	0	0	4	291	7	2	300	2	1	150	153	0	12	1	13	470
% App. Total	100	0	0		97	2.3	0.7		1.3	0.7	98		0	92.3	7.7		
PHF	.500	.000	.000	.500	.495	.583	.250	.500	.250	.250	.403	.407	.000	.500	.250	.542	.721

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File Name : LQWA47HSUN
Site Code : 00724612
Start Date : 6/3/2007
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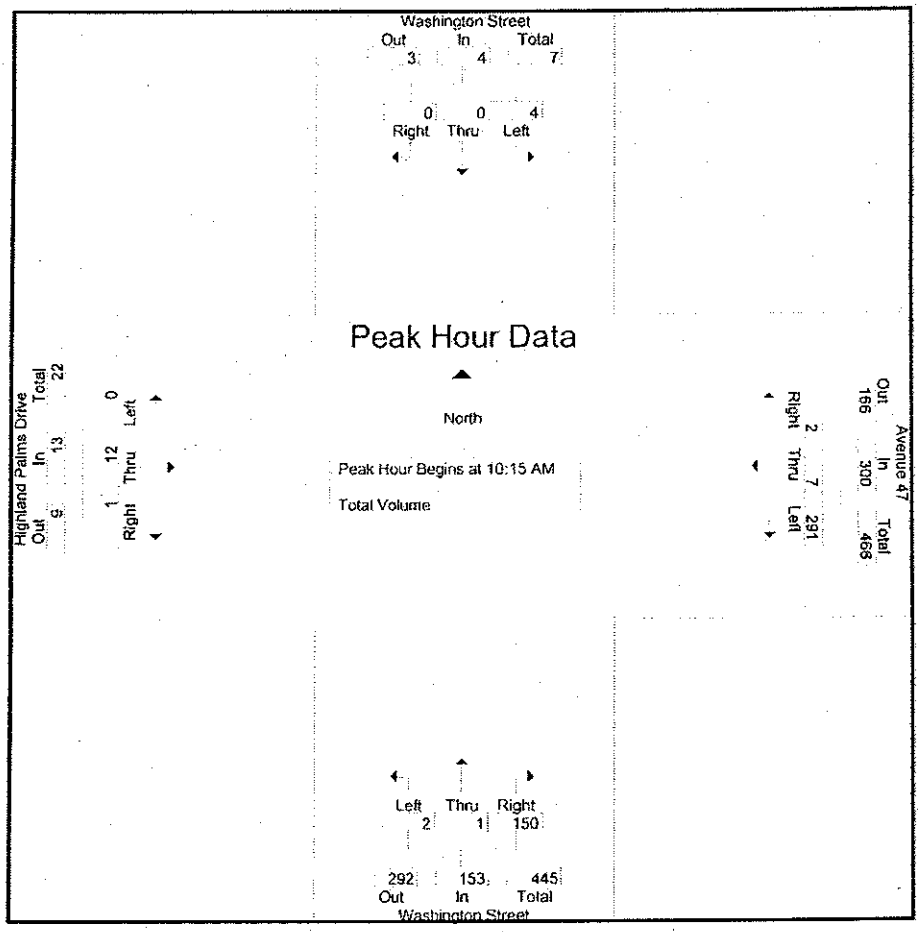

Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:30 AM				08:30 AM				10:00 AM				10:00 AM			
+0 mins.	2	0	0	2	28	2	0	30	0	0	22	22	0	2	0	2
+15 mins.	1	0	1	2	89	2	0	91	0	1	93	94	0	6	0	6
+30 mins.	1	0	0	1	141	3	1	145	0	0	41	41	0	4	0	4
+45 mins.	2	0	0	2	46	3	1	50	2	0	7	9	0	1	1	2
Total Volume	6	0	1	7	304	10	2	316	2	1	163	166	0	13	1	14
% App. Total	85.7	0	14.3		96.2	3.2	0.6		1.2	0.6	98.2		0	92.9	7.1	
PHF	.750	.000	.250	.875	.539	.833	.500	.545	.250	.250	.438	.441	.000	.542	.250	.583

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City of La Quinta
N/S: Washington Street
E/W: North Church Driveway
Weather: Sunny

File Name : LQWADWNSAT
Site Code : 00724623
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
01:45 PM	0	6	6	0	0	0	1	0	1	7
Total	0	6	6	0	0	0	1	0	1	7
02:00 PM	0	19	19	1	0	1	1	0	1	21
02:15 PM	0	9	9	0	0	0	0	1	1	10
02:30 PM	0	4	4	0	0	0	0	0	0	4
02:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	32	32	1	0	1	2	1	3	36
03:00 PM	0	6	6	0	0	0	0	0	0	6
03:15 PM	0	2	2	0	0	0	3	12	15	17
03:30 PM	0	12	12	0	0	0	10	17	27	39
03:45 PM	0	11	11	0	0	0	3	0	3	14
Total	0	31	31	0	0	0	16	29	45	76
Grand Total	0	69	69	1	0	1	19	30	49	119
Apprch %	0	100		100	0		38.8	61.2		
Total %	0	58	58	0.8	0	0.8	16	25.2	41.2	

	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 01:45 PM to 03:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	0	6	6	0	0	0	0	0	0	6
03:15 PM	0	2	2	0	0	0	3	12	15	17
03:30 PM	0	12	12	0	0	0	10	17	27	39
03:45 PM	0	11	11	0	0	0	3	0	3	14
Total Volume	0	31	31	0	0	0	16	29	45	76
% App. Total	0	100		0	0		35.6	64.4		
PHF	.000	.646	.646	.000	.000	.000	.400	.426	.417	.487

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E/W: North Church Driveway
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File Name : LQWADWNSAT
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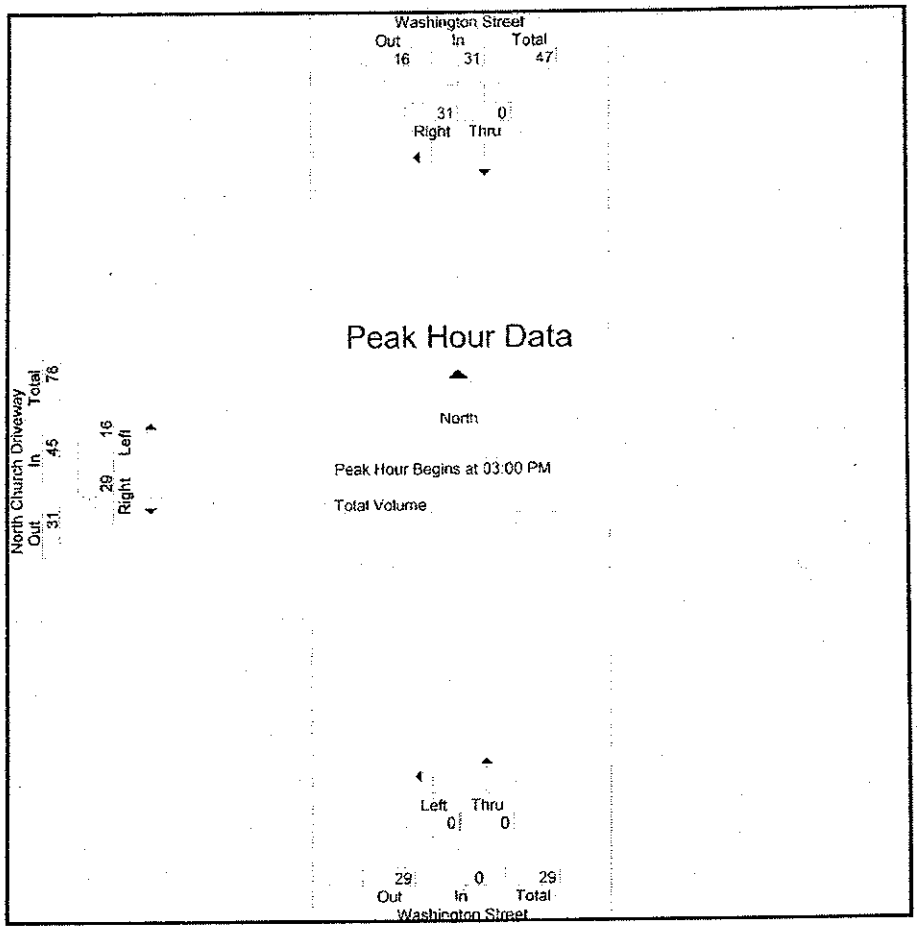

Peak Hour Analysis From 01:45 PM to 03:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	01:45 PM			01:45 PM			03:00 PM		
+0 mins.	0	6	6	0	0	0	0	0	0
+15 mins.	0	19	19	1	0	1	3	12	15
+30 mins.	0	9	9	0	0	0	10	17	27
+45 mins.	0	4	4	0	0	0	3	0	3
Total Volume	0	38	38	1	0	1	16	29	45
% App. Total	0	100		100	0		35.6	64.4	
PHF	.000	.500	.500	.250	.000	.250	.400	.426	.417

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City of La Quinta
N/S: Washington Street
E/W: South Church Driveway
Weather: Sunny

File Name : LQWADWSSAT
Site Code : 00724623
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Groups Printed- Total Volume

	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
01:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
Peak Hour Analysis From 01:45 PM to 03:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:45 PM										
01:45 PM	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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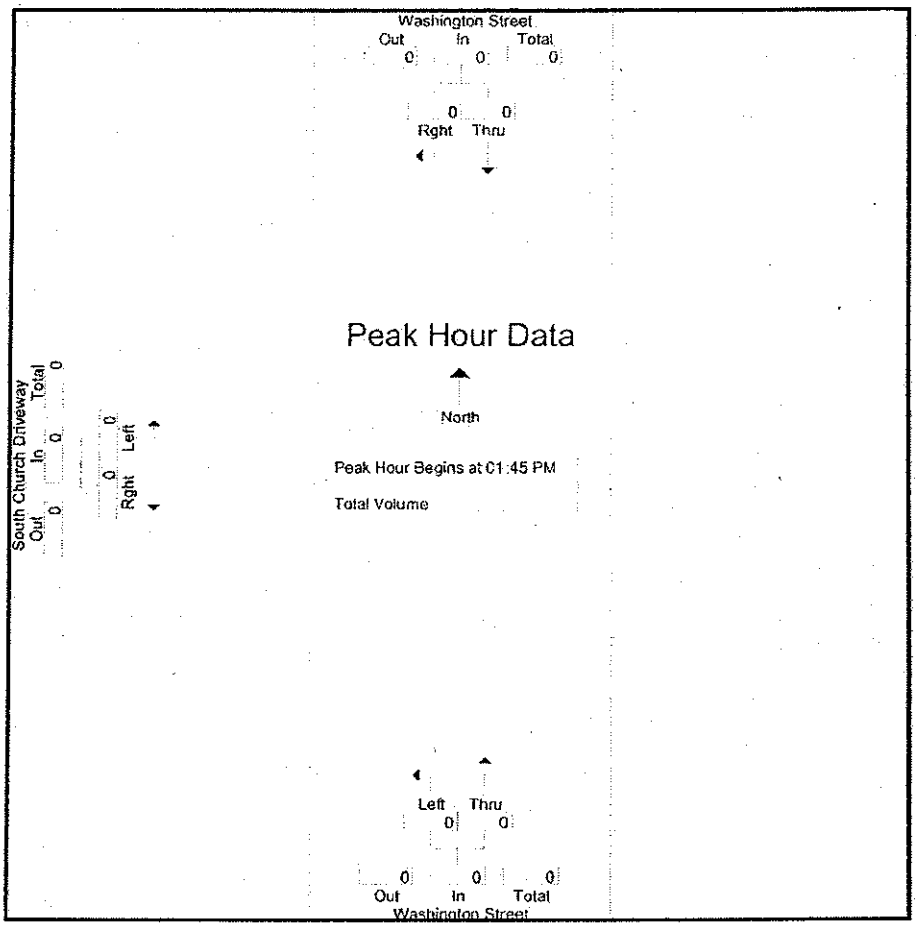

Peak Hour Analysis From 01:45 PM to 03:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:45 PM			01:45 PM			01:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of La Quinta
N/S: Washington Street
E/W: North Church Driveway
Weather: Sunny

File Name : LQWADWNSUN
Site Code : 00724623
Start Date : 6/3/2007
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Groups Printed- Total Volume

	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
08:30 AM	14	28	42	0	0	0	64	37	101	143
08:45 AM	2	68	70	1	0	1	9	5	14	85
Total	16	96	112	1	0	1	73	42	115	228
09:00 AM	28	100	128	0	0	0	5	4	9	137
09:15 AM	15	36	51	0	0	0	1	3	4	55
09:30 AM	2	7	9	0	0	0	1	1	2	11
09:45 AM	0	2	2	0	0	0	0	0	0	2
Total	45	145	190	0	0	0	7	8	15	205
10:00 AM	1	10	11	0	0	0	17	9	26	37
10:15 AM	13	7	20	0	0	0	81	74	155	175
10:30 AM	2	33	35	0	0	0	25	9	34	69
10:45 AM	5	122	127	0	0	0	9	7	16	143
Total	21	172	193	0	0	0	132	99	231	424
11:00 AM	7	82	89	0	0	0	8	1	9	98
11:15 AM	3	21	24	0	0	0	4	2	6	30
11:30 AM	2	7	9	0	0	0	3	2	5	14
11:45 AM	1	11	12	0	0	0	2	2	4	16
Total	13	121	134	0	0	0	17	7	24	158
12:00 PM	5	15	20	0	0	0	21	5	26	46
12:15 PM	16	23	39	0	0	0	67	57	124	163
Grand Total	116	572	688	1	0	1	317	218	535	1224
Apprch %	16.9	83.1		100	0		59.3	40.7		
Total %	9.5	46.7	56.2	0.1	0	0.1	25.9	17.8	43.7	

	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 10:15 AM										
10:15 AM	13	7	20	0	0	0	81	74	155	175
10:30 AM	2	33	35	0	0	0	25	9	34	69
10:45 AM	5	122	127	0	0	0	9	7	16	143
11:00 AM	7	82	89	0	0	0	8	1	9	98
Total Volume	27	244	271	0	0	0	123	91	214	485
% App. Total	10	90		0	0		57.5	42.5		
PHF	.519	.500	.533	.000	.000	.000	.380	.307	.345	.693

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File Name : LQWADWNSUN
Site Code : 00724623
Start Date : 6/3/2007
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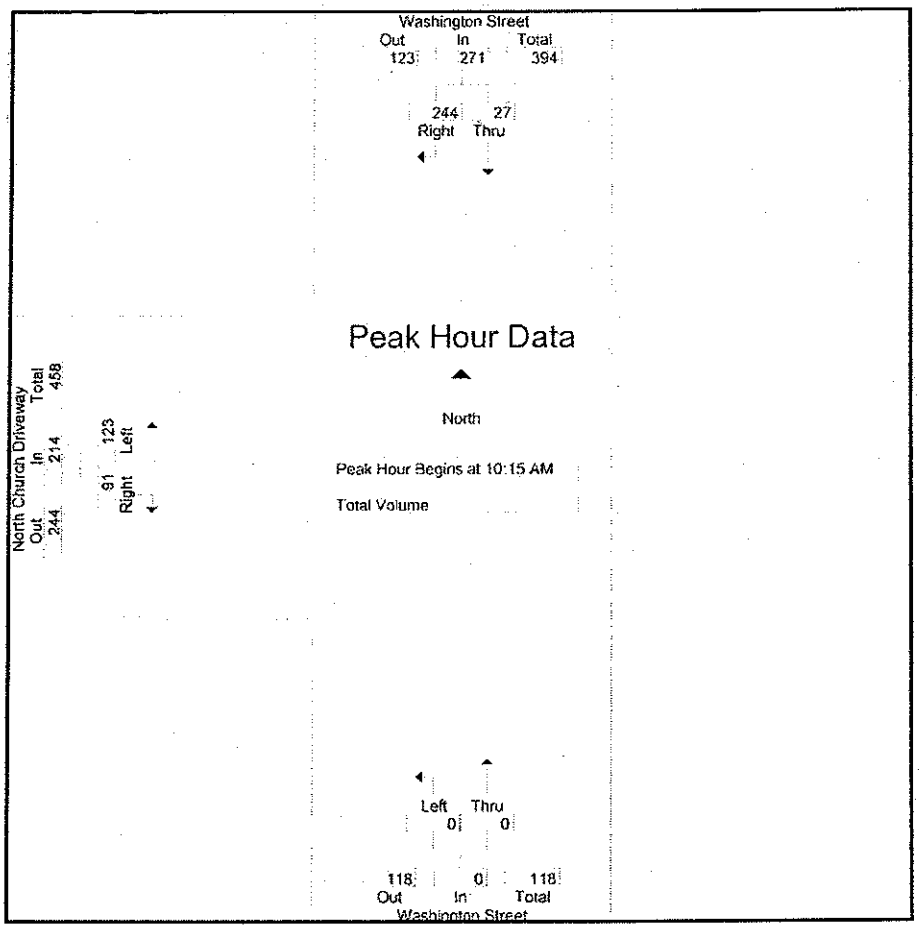

Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:30 AM			08:30 AM			10:00 AM		
+0 mins.	14	28	42	0	0	0	17	9	26
+15 mins.	2	68	70	1	0	1	81	74	155
+30 mins.	28	100	128	0	0	0	25	9	34
+45 mins.	15	36	51	0	0	0	9	7	16
Total Volume	59	232	291	1	0	1	132	99	231
% App. Total	20.3	79.7		100	0		57.1	42.9	
PHF	.527	.580	.568	.250	.000	.250	.407	.334	.373

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City of La Quinta
N/S: Washington Street
E/W: South Church Driveway
Weather: Sunny

File Name : LQWADWSSUN
Site Code : 00724623
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
08:30 AM	0	0	0	0	0	0	5	32	37	37
08:45 AM	0	2	2	0	0	0	1	0	1	3
Total	0	2	2	0	0	0	6	32	38	40
09:00 AM	0	25	25	0	0	0	0	0	0	25
09:15 AM	0	13	13	0	0	0	0	0	0	13
09:30 AM	0	1	1	0	0	0	0	0	0	1
09:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	39	39	0	0	0	0	0	0	39
10:00 AM	0	1	1	0	0	0	2	2	4	5
10:15 AM	0	0	0	0	0	0	15	41	56	56
10:30 AM	0	0	0	0	0	0	1	4	5	5
10:45 AM	0	3	3	0	0	0	0	1	1	4
Total	0	4	4	0	0	0	18	48	66	70
11:00 AM	0	8	8	0	0	0	0	0	0	8
11:15 AM	0	5	5	0	0	0	0	0	0	5
11:30 AM	0	1	1	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	14	14	0	0	0	0	0	0	14
12:00 PM	0	0	0	0	0	0	4	1	5	5
12:15 PM	0	2	2	0	0	0	8	39	47	49
Grand Total	0	61	61	0	0	0	36	120	156	217
Apprch %	0	100		0	0		23.1	76.9		
Total %	0	28.1	28.1	0	0	0	16.6	55.3	71.9	

	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:30 AM										
08:30 AM	0	0	0	0	0	0	5	32	37	37
08:45 AM	0	2	2	0	0	0	1	0	1	3
09:00 AM	0	25	25	0	0	0	0	0	0	25
09:15 AM	0	13	13	0	0	0	0	0	0	13
Total Volume	0	40	40	0	0	0	6	32	38	78
% App. Total	0	100		0	0		15.8	84.2		
PHF	.000	.400	.400	.000	.000	.000	.300	.250	.257	.527

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City of La Quinta
N/S: Washington Street
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File Name : LQWADWSSUN
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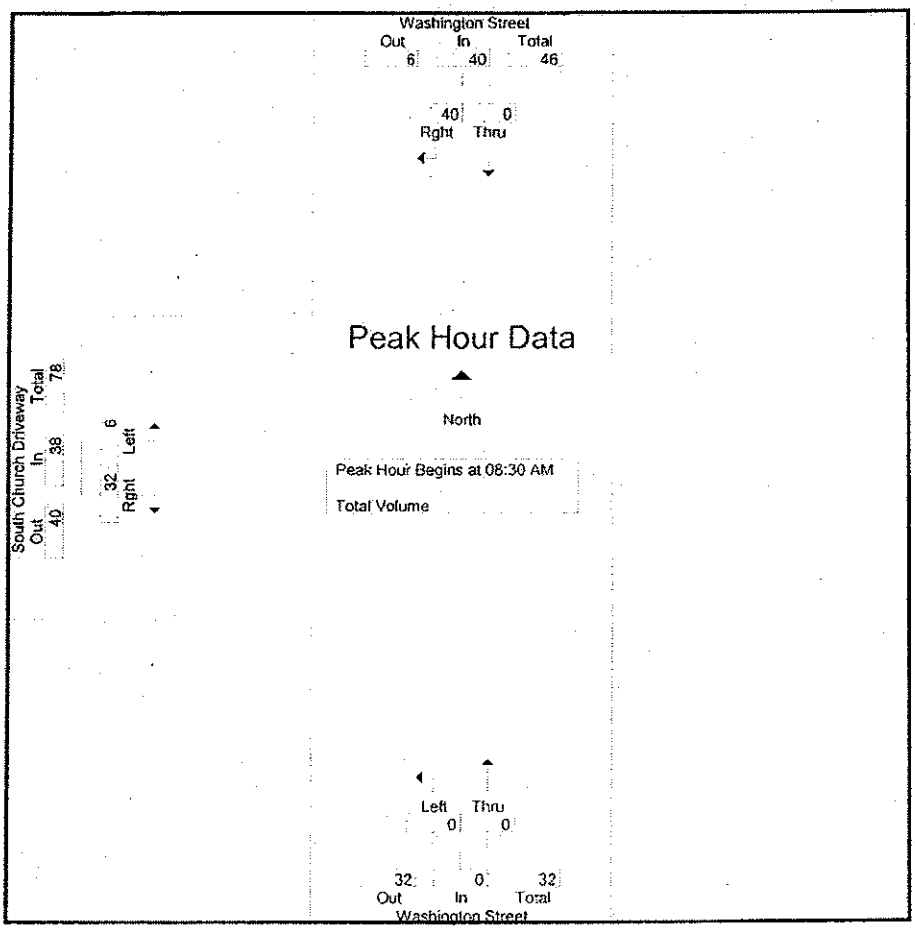

Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:45 AM			08:30 AM			09:30 AM		
+0 mins.	0	2	2	0	0	0	0	0	0
+15 mins.	0	25	25	0	0	0	0	0	0
+30 mins.	0	13	13	0	0	0	2	2	4
+45 mins.	0	1	1	0	0	0	15	41	56
Total Volume	0	41	41	0	0	0	17	43	60
% App. Total	0	100		0	0		28.3	71.7	
PHF	.000	.410	.410	.000	.000	.000	.283	.262	.268

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November 12, 2007

Mr. John Vuksic
President
Vuksic Architects
44530 San Pablo Avenue, Suite 200
Palm Desert, CA 92260

Subject: Traffic Analysis for Saint Francis of Assisi Catholic Church Improvement Project

Dear Mr. Vuksic:

INTRODUCTION

Willdan is pleased to submit this traffic analysis regarding the Saint Francis of Assisi Catholic Church (Church). The Church proposes to expand its parking facilities to add additional parking spaces. The City of La Quinta requested a Traffic Impact Report to address trip generation, level of service (LOS), parking generation, and left turn and right turn storage requirements. The City also requested that traffic generated by the Laing Homes development be incorporated into the study. The Church and Laing Homes development will have shared access to the west leg of the Washington Street and Lake La Quinta Drive intersection. This letter report analyzes the existing traffic volumes generated by the Church and the proposed traffic generated by the Laing Homes development. It does not address traffic volumes that will be generated by other developments.

DATA COLLECTION

Turning movement counts were taken on Saturday, May 26, 2007, between 1:30 p.m. and 3:30 p.m. and on Sunday, June 3, 2007, between 8:30 a.m. and 12:30 p.m. These dates and times were chosen based on discussions with the Church regarding current Sunday church service and Saturday special event schedules. The counts were taken at the following locations:

- Washington Street Frontage and the south Church driveway.
- Washington Street Frontage and the north Church driveway.
- Washington Street Frontage and Highland Palms Drive.
- Washington Street and Highland Palms/Avenue 47.
- Washington Street and Lake La Quinta Drive.

Average Daily Traffic (ADT) counts were not requested by the City for this analysis.

The peak hour identified for Saturday was 2:30 p.m. to 3:30 p.m. and the peak hour for Sunday was 10:15 a.m. to 11:15 a.m. Saturday Church volumes were significantly lower than Sunday volumes; therefore, Sunday traffic volumes were used as the basis for this analysis and are depicted in Exhibit A. Saturday traffic volumes are depicted in Exhibit B.

TRIP GENERATION

Trip generation was determined for the existing Church facilities. The Institute of Transportation Engineers (ITE) Trip Generation book, 7th Edition, was used to calculate trips based on the number of seats. The Church has 760 existing seats and based on the ITE rates, the Church is estimated to generate the following:

Table 1
St. Francis of Assisi Catholic Church
Weekend Trip Generation Rates (trips/seat) vs. Seats
Land Use Code: 560
Number of Seats: 760

Average Saturday Rate	Average Saturday Trips	Average Saturday Peak Hour Rate	Average Saturday Peak Hour Trips	Average Sunday Rate	Average Sunday Trips	Average Sunday Peak Hour Rate	Average Sunday Peak Hour Trips
0.9	684	0.6	456	1.53	1163	0.63	479

Trip generation for the Laing Homes development was determined based on their approved environmental analysis for the development. The environmental analysis indicates that 708 average daily trips will be generated from 74 residences. The peak hour volume was taken to be 10 percent of the average daily trips.

TRIP DISTRIBUTION

The Church's expansion of its parking facilities will require Washington Street frontage to be abandoned, including the existing north and south Church driveways. A new driveway will be constructed to provide access to Washington Street. A traffic signal will also be installed at Washington Street and Lake La Quinta Drive to provide additional access to the Church property.

The Sunday peak hour volumes were redistributed from the existing access points to the new access points to determine the traffic impacts with the new Church parking facilities. Exhibit C depicts the redistributed traffic volumes generated by the Church. Per City guidelines, a 40 percent seasonal increase was included with the redistributed traffic volumes. The City considers May 16th to September 30th to be off-season and the measured volumes may be increased up to 40 percent.

Exhibit D depicts the peak hour distributed volumes generated by the Laing Homes development. Exhibit E identifies the total distributed volume used in the analysis.

The trip distribution for the Church was based on the following:

- A 60/40 split was used to determine traffic volume through the two access points where 60 percent is through the Washington Street and Lake La Quinta Drive intersection and 40 percent is through the north Church driveway.

The trip distribution for the Laing Homes development was based on the following:

- Per discussions with the City, it was determined the majority of traffic will travel to and return from the north. It was assumed that vehicles traveling north will use the north driveway and vehicles traveling south will use the south driveway. A 70/30 split was used to distribute vehicles traveling to the north and to the south, where 70% use the Washington Street and Lake La Quinta Drive intersection and 30% use the south driveway.
- Per ITE Trip Generation Land Use Code 210, a 25/75 in-out distribution was used for the AM peak hour and a 63/37 in-out distribution was used for the PM peak hour.
- In general, housing developments produce lower weekend trips than weekday trips therefore yield a small impact on sites where the majority of traffic is weekend generated. The worst-case scenarios of AM and PM peak hour trips were added to the redistributed weekend Church traffic volumes and used for the analysis.

PARKING GENERATION

The ITE Parking Generation book, 3rd Edition, was used to calculate the peak period parking demand of the existing Church facilities. Currently, the Church provides 184 parking spaces. Table 2 indicates the parking demand to be 122 spaces on a Sunday.

Table 2
St. Francis of Assisi Catholic Church
Average Peak Period Parking Demand vs. Seats on a Sunday
Land Use Code: 560
Number of Seats: 760

Average Rate (vehicles/seat)	**Average Parking Demand**
0.16	122

Chapter 9 of the City of La Quinta Municipal Code states that one parking space per three seats shall be provided for all "Assembly Uses."

Table 3 **Saint Francis of Assisi Catholic Church**		
City of La Quinta Municipal Code, Chapter 9		
Assembly Uses		
Number of Seats: 760		
Average Saturday Rate (vehicles/seat)	**Average Sunday Rate**	**Total Available Spaces** (existing + proposed)
0.333	253	590

As shown in Table 3, the City's Municipal Code requires 253 parking spaces for the Church and the total number of existing and proposed spaces is 590.

LEVEL OF SERVICE ANALYSIS

An intersection capacity utilization (ICU) analysis was performed for the proposed traffic signal at the intersection of Washington Street and Lake La Quinta Drive and at the proposed north driveway entrance. The ICU method computes a Level of Service for an entire intersection based on a volume to capacity (V/C) ratio summation for key conflicting movements. LOS is a relative measure of driver satisfaction with ranges from "A" (free flow: ICU less than 0.600) to "F" (forced flow: ICU value in excess of 1.000).

The following is a description of levels of service:

- LOS A (ICU less than 0.600) – Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.

- LOS B (ICU 0.601 to 0.700) – Operating speeds beginning to be affected by other traffic; between one and ten percent of the signal cycle have one or more vehicles which wait through more than one signal cycle during peak traffic periods.

- LOC C (ICU 0.701 to 0.800) – Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; recommended ideal design standard.

- LOS D (ICU 0.801 to 0.900) – Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; often used as design standard in urban areas.

- LOS E (ICU 0.901 to 1.000) – Capacity; the maximum traffic volume an intersection can accommodate; restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.

- LOS F (ICU over 1.000) – Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can dip to zero; traffic volume will be less than the volume which occurs at Level of Service E.

Based on the ICU analysis for Washington Street and Lake La Quinta Drive, the intersection will be operating at a LOS A during the Sunday peak hour (Table 4). This analysis is based on the redistributed Church traffic volumes and the weekday Laing Homes traffic volumes.

Table 4

Intersection	v/c	LOS
Washington Street/North Driveway Entrance	0.409	A

The methodology used to analyze the north driveway entrance is described in the 2000 Highway Capacity Manual (HCM), published by the Transportation Research Board. This methodology was used because the driveway will be stop-controlled. LOS of stop-controlled intersections is defined in terms of delay, which is a measure of driver comfort, frustration, fuel consumption, and loss of time.

The HCM analysis method determines the available acceptable gaps in the major traffic stream used by vehicles crossing or turning through the stream. The number of available gaps affects the delay experienced by motorists required to yield. This delay is calculated and a LOS designation is assigned at incremental delay times. LOS A corresponds to little or no delay whereas LOS F corresponds to very long delays.

Based on the HCM analysis for the north driveway entrance, the access will be operating a LOS C during the Sunday peak hour (Table 5). As stated previously, this analysis is based on the redistributed Church traffic volumes and the weekday Laing Homes traffic volumes.

Table 5		
Intersection	Eastbound Approach	
	Delay	LOS
Washington Street/North Driveway Entrance	16.1	C

Note: delay is in seconds

LEFT-TURN AND RIGHT-TURN STORAGE CALCULATIONS

In general, an accepted method to determine turning lane storage lengths is to provide 1 foot for every turning vehicle in the peak hour. The City utilizes the ITE Transportation and Land Development nomograph to determine storage lengths. The minimum storage length is 100 feet and 250 vehicles during the peak hour is the threshold for dual left turn lanes. A 90 second traffic signal cycle was used to determine the storage lengths at the Washington Street and Lake La Quinta Drive intersection.

The storage length was determined for the following locations:

- Southbound Washington Street right turns at the north Church driveway entrance.
- Southbound Washington Street right turns at Lake La Quinta Drive.
- Northbound Washington Street left turns at Lake La Quinta Drive.

The analysis was based on the redistributed traffic volumes of existing vehicles entering and exiting the Church property.

Table 6			
Turning Movement Location	Volume (vehicles/hr)	Minimum Storage Length (feet)	Recommended Storage Length (feet)
Southbound Washington Street right turns at north Church driveway entrance	87	100	100
Southbound Washington Street right turns at Lake La Quinta Drive	161	150	200
Northbound Washington Street left turns at Lake La Quinta Drive	205	200	265

Table 6 indicates the recommended storage lengths for each intersection to range from 100 to 265 feet.

SUMMARY

This Traffic Impact Report has been completed to address trip generation, parking generation, level of service, and left turn/right turn storage requirements. The average number of trips generated by the Church on a Sunday is 479 trips during the peak hour and the average parking demand is 122 spaces. The City of La Quinta requires 253 parking spaces per the La Quinta Municipal Code, Chapter 9. The existing parking lot currently has 184 spaces and the expansion will yield an additional 406 spaces for a total of 590. The expansion will exceed the parking requirements for the City of La Quinta and ITE parking generation rates.

The ICU analysis for Washington Street and Lake La Quinta Drive intersection indicates a LOS A during the Sunday peak hour and exceeds the recommended ideal design standard. The HCM analysis for Washington Street and the north Church driveway entrance indicates a LOS C and a delay of 16.1 seconds during the peak hour.

The left-turn and right-turn storage lengths were determined based on the redistributed traffic volumes. The recommended storage lengths are:

- 100 feet for southbound Washington Street right turns at the north Church driveway entrance
- 200 feet for southbound Washington Street right turns at Lake La Quinta Drive
- 265 feet for northbound Washington Street left turns at Lake La Quinta Drive

Based on the 50 MPH posted speed limit on Washington Street, it is further recommended that 150 feet reverse curves be used for the turning lane bay tapers.

Should you have any questions regarding this study, please contact me at (562) 908-6221

Sincerely,

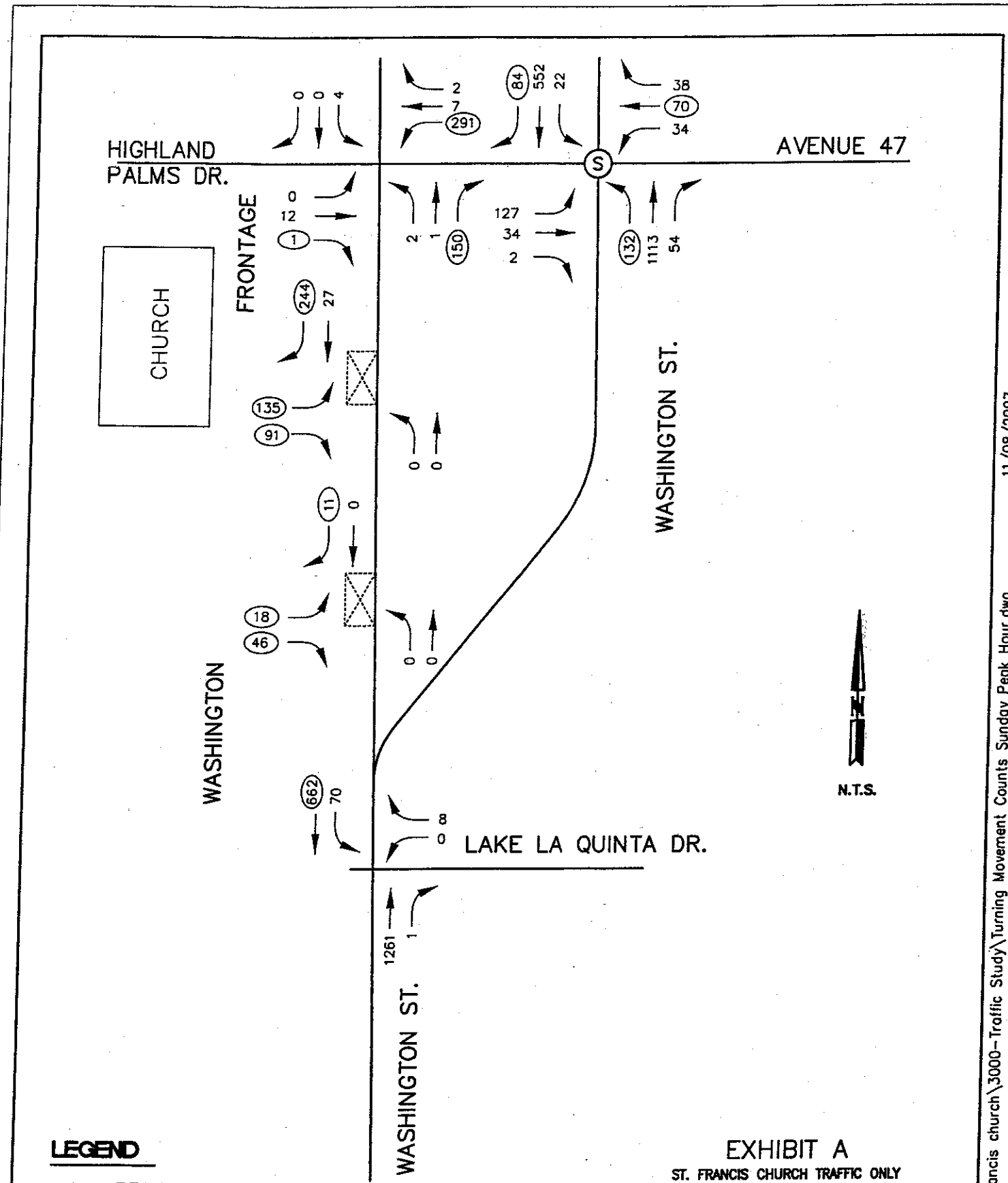
WILLDAN

Reggie Greene
Senior Design Engineer

RG:mh (06-160)
15764/3000/L01

APPENDIX

- Exhibits
- ICU Calculations
- HMC Calculations



LEGEND

XXX PEAK HOUR VOLUME

(XXX) PEAK HOUR VOLUME TO BE DISTRIBUTED TO NEW ACCESS POINTS

(S) SIGNALIZED INTERSECTION

EXHIBIT A

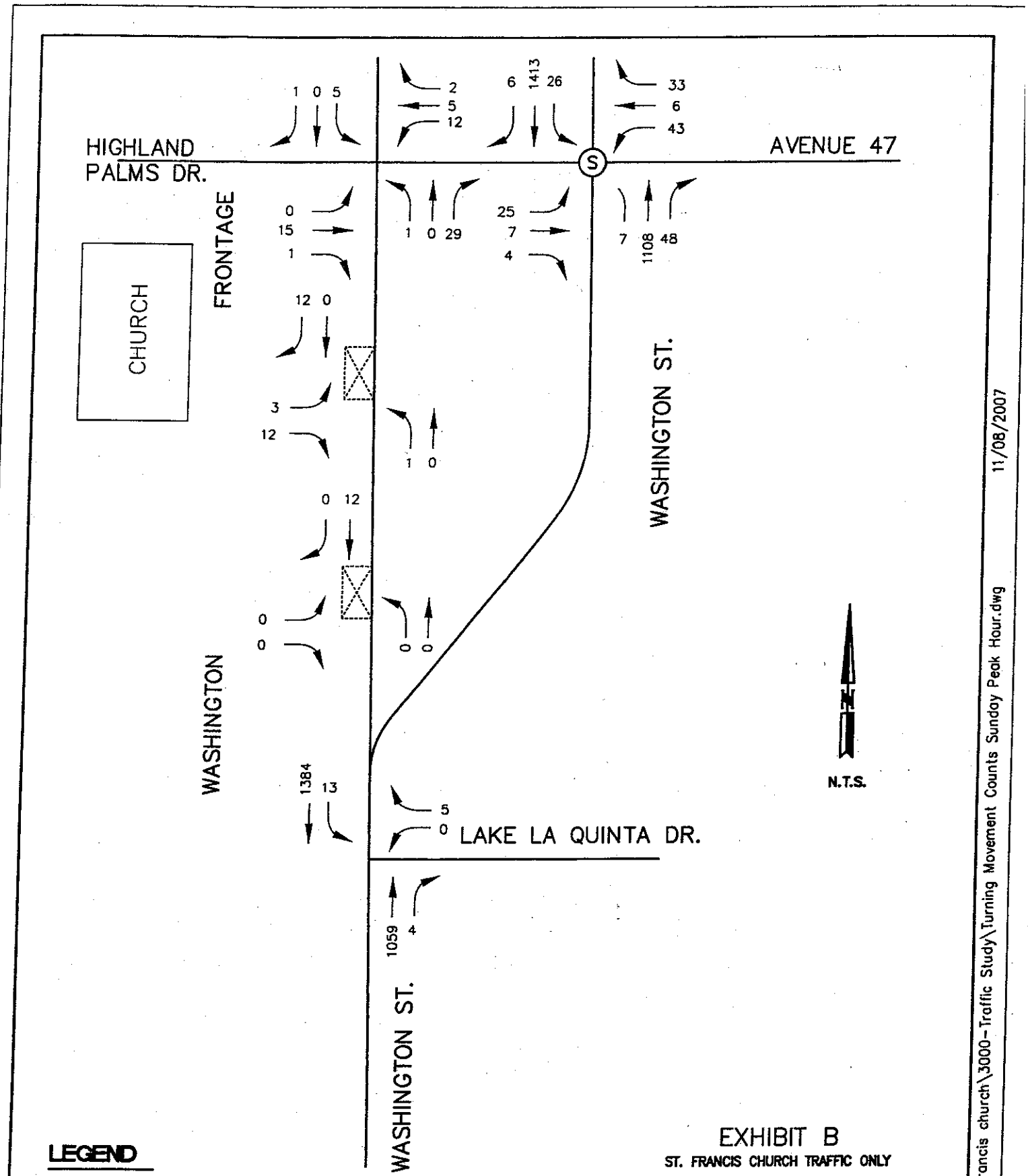
ST. FRANCIS CHURCH TRAFFIC ONLY

CITY OF LA QUINTA

TURNING MOVEMENT COUNTS
SUNDAY PEAK HOUR

11/08/2007

Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg



LEGEND

XXX PEAK HOUR VOLUME

(S) SIGNALIZED INTERSECTION

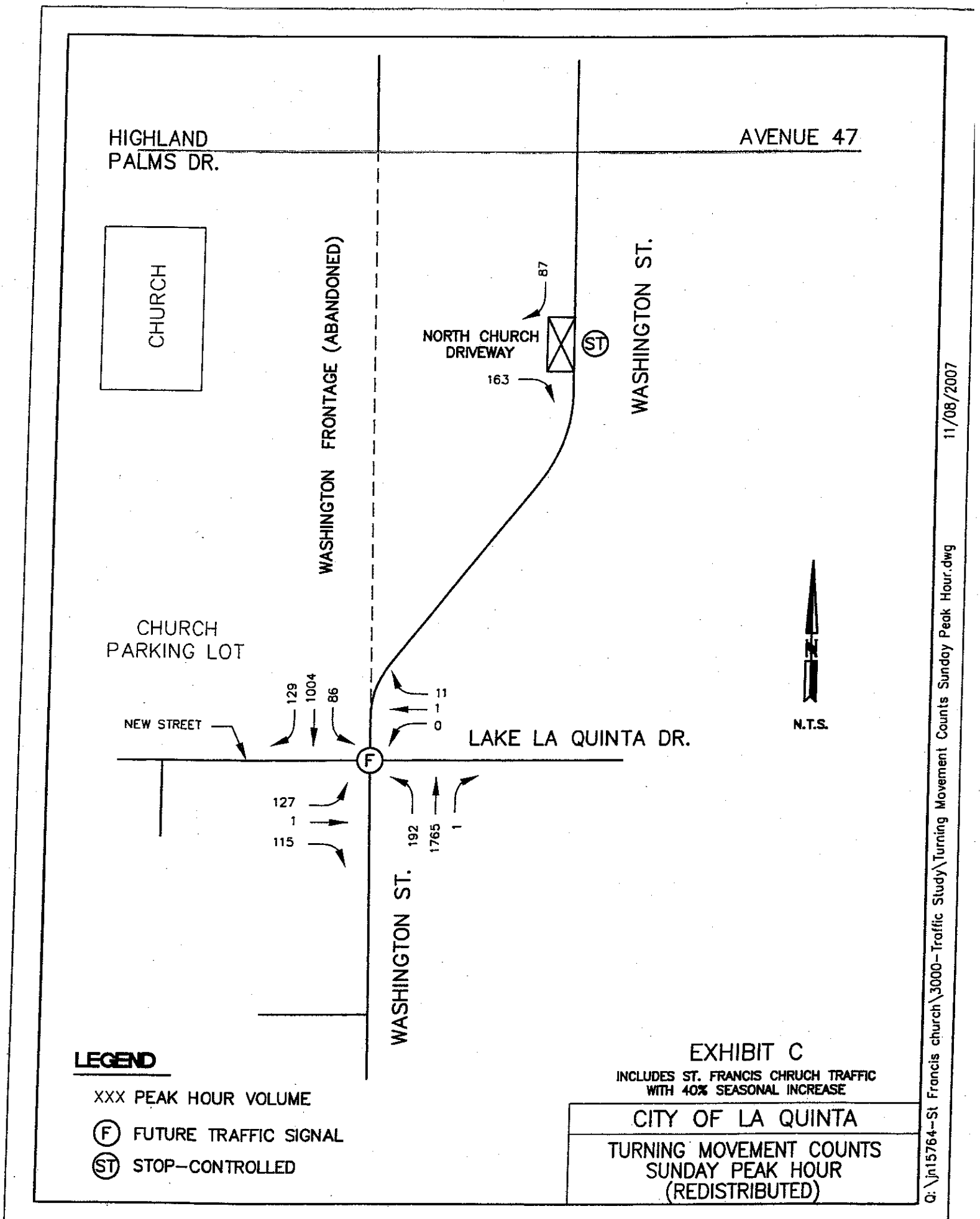
EXHIBIT B

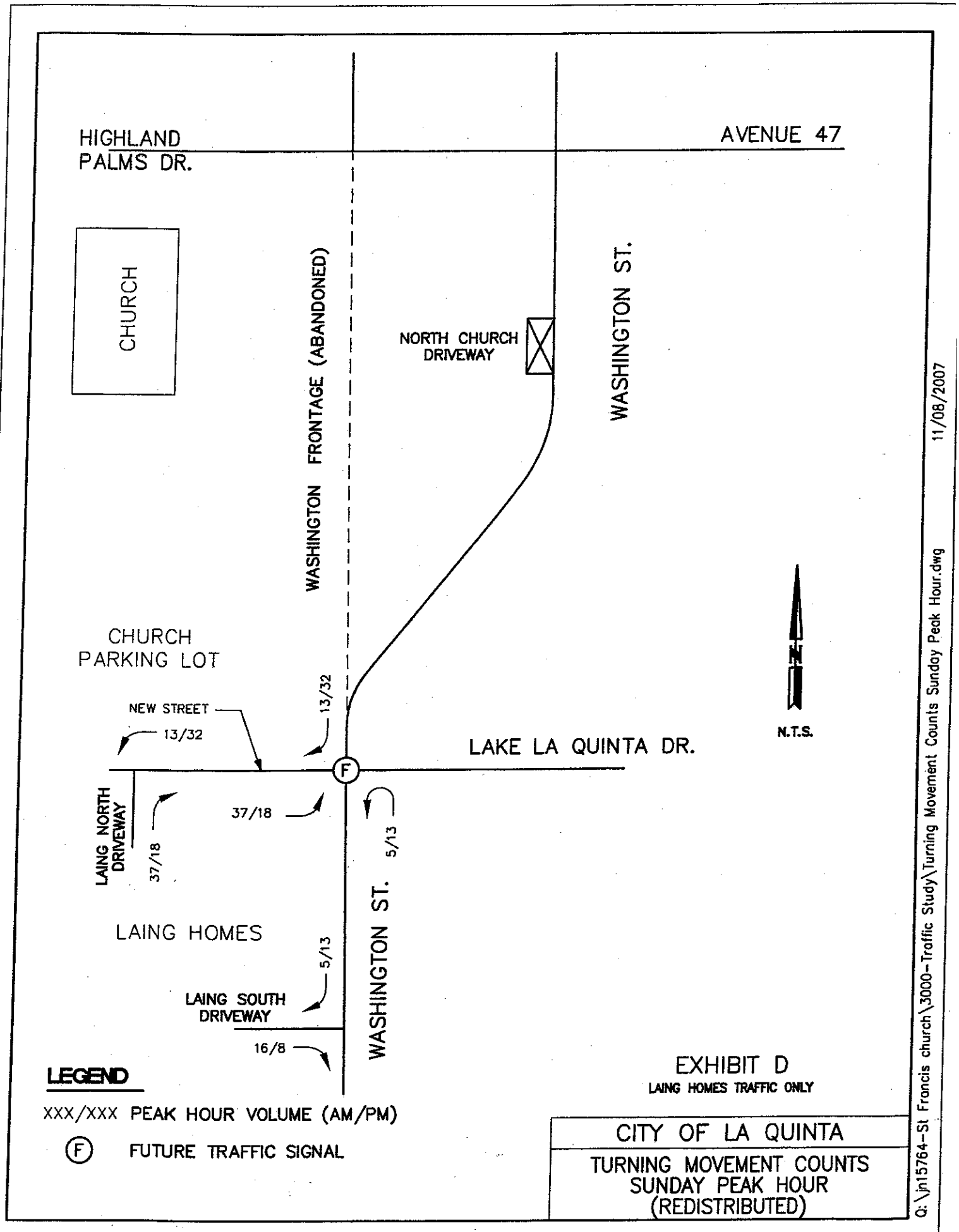
ST. FRANCIS CHURCH TRAFFIC ONLY

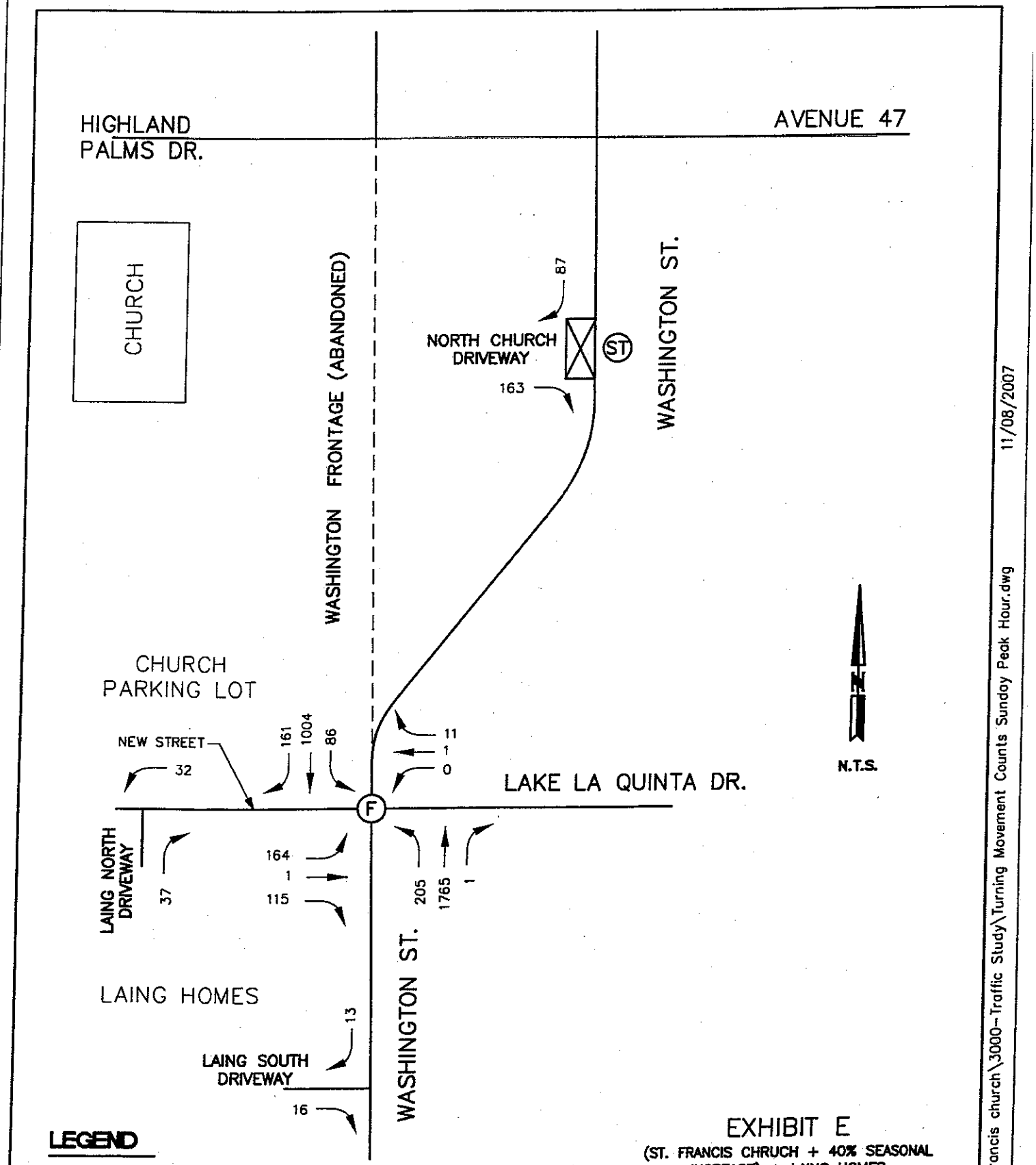
CITY OF LA QUINTA

TURNING MOVEMENT COUNTS
SATURDAY PEAK HOUR

Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg 11/08/2007


HIGHLAND PALMS DR.
AVENUE 47
CHURCH
WASHINGTON FRONTAGE (ABANDONED)
WASHINGTON ST.
87
NORTH CHURCH DRIVEWAY
ST
163
CHURCH PARKING LOT
129
1004
86
11
1
0
NEW STREET
F
LAKE LA QUINTA DR.
127
1
115
192
1765
1
WASHINGTON ST.
N
N.T.S.
LEGEND
XXX PEAK HOUR VOLUME
F FUTURE TRAFFIC SIGNAL
ST STOP-CONTROLLED
EXHIBIT C
INCLUDES ST. FRANCIS CHRUCH TRAFFIC WITH 40% SEASONAL INCREASE
CITY OF LA QUINTA
TURNING MOVEMENT COUNTS
SUNDAY PEAK HOUR
(REDISTRIBUTED)
11/08/2007
Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg


HIGHLAND PALMS DR.
AVENUE 47
CHURCH
WASHINGTON FRONTAGE (ABANDONED)
NORTH CHURCH DRIVEWAY
WASHINGTON ST.
CHURCH PARKING LOT
NEW STREET
13/32
13/32
LAKE LA QUINTA DR.
F
LAING NORTH DRIVEWAY
37/18
37/18
5/13
WASHINGTON ST.
LAING HOMES
5/13
LAING SOUTH DRIVEWAY
16/8
N
N.T.S.
LEGEND
XXX/XXX PEAK HOUR VOLUME (AM/PM)
F FUTURE TRAFFIC SIGNAL
EXHIBIT D
LAING HOMES TRAFFIC ONLY
CITY OF LA QUINTA
TURNING MOVEMENT COUNTS
SUNDAY PEAK HOUR
(REDISTRIBUTED)
11/08/2007
Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg


HIGHLAND PALMS DR.
AVENUE 47
CHURCH
WASHINGTON FRONTAGE (ABANDONED)
WASHINGTON ST.
87
NORTH CHURCH DRIVEWAY
ST
163
CHURCH PARKING LOT
NEW STREET
32
161
1004
86
11
1
0
LAKE LA QUINTA DR.
F
LAING NORTH DRIVEWAY
37
164
1
115
205
1765
1
WASHINGTON ST.
LAING HOMES
13
LAING SOUTH DRIVEWAY
16
N.T.S.
LEGEND
XXX PEAK HOUR VOLUME
F FUTURE TRAFFIC SIGNAL
ST STOP-CONTROLLED
EXHIBIT E
(ST. FRANCIS CHRUCH + 40% SEASONAL INCREASE) + LAING HOMES
CITY OF LA QUINTA
TURNING MOVEMENT COUNTS
SUNDAY PEAK HOUR
(COMBINED)
11/08/2007
Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg

INTERSECTION CAPACITY UTILIZATION CALCULATION SHEET

Intersection: Washington Street and north driveway entrance (St. Francis Church)	
Count Date: Sunday June 3, 2007	**Peak Hour:** 2:30 - 3:30pm
Analyst: R. Greene	**Agency:** City of La Quinta

Movement	Volume	Number of Lanes	Capacity	V/C Ratio		Total
NB Left	205	1	1900	0.108		
NB Thru	1766	3	5700	0.310	0.310	
NB Right	0	0	0	0.000		0.355
SB Left	86	1	1900	0.045		
SB Thru	1004	3	5700	0.176	0.045	
SB Right	161	1	1900	0.085		
EB Left	164	2	3420	0.048		
EB Thru	1	1	1900	0.001	0.048	
EB Right	115	1	1900	0.061		0.054
WB Left	0	1	1900	0.000		
WB Thru	12	1	1900	0.006	0.006	
WB Right	0	0	0	0.000		
Sum of Critical V/C Ratios						0.409
Adjustment for Lost Time						0.100
Intersection Capacity Utilization (ICU)						0.509
Level of Service (LOS) - Refer to table below						A

Notes:

1. Per lane Capacity = 1,900 VPH
2. Dual turn lane Capacity = 3,420 VPH
3. Intersection Type: 4-Way
   T X
   Split N/S
   Split E/W

Maximum V/C Ratio
0.6
0.7
0.8
0.9
1.0
n/a

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*R. Greene*
Agency/Co.	*City of La Quinta*
Date Performed	*11/08/07*
Analysis Time Period	*10:15 - 11:15AM*

Site Information

Intersection	*Washington St./No. Driveway*
Jurisdiction	
Analysis Year	*2007*

Project Description

East/West Street: *North Driveway Entrance* North/South Street: *Washington Street*

Intersection Orientation: *North-South* Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)					*1251*	*87*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*163*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*2*	*1*
Configuration					*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)			*163*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*1251*	*87*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*1*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*1*	*0*	*0*	*0*
Configuration			*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration								*R*
v (veh/h)								*163*
C (m) (veh/h)								*486*
v/c								*0.34*
95% queue length								*1.46*
Control Delay (s/veh)								*16.1*
LOS								*C*

Approach Delay (s/veh)	–	–		*16.1*
Approach LOS	–	–		*C*

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SAT
Site Code : 00724612
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

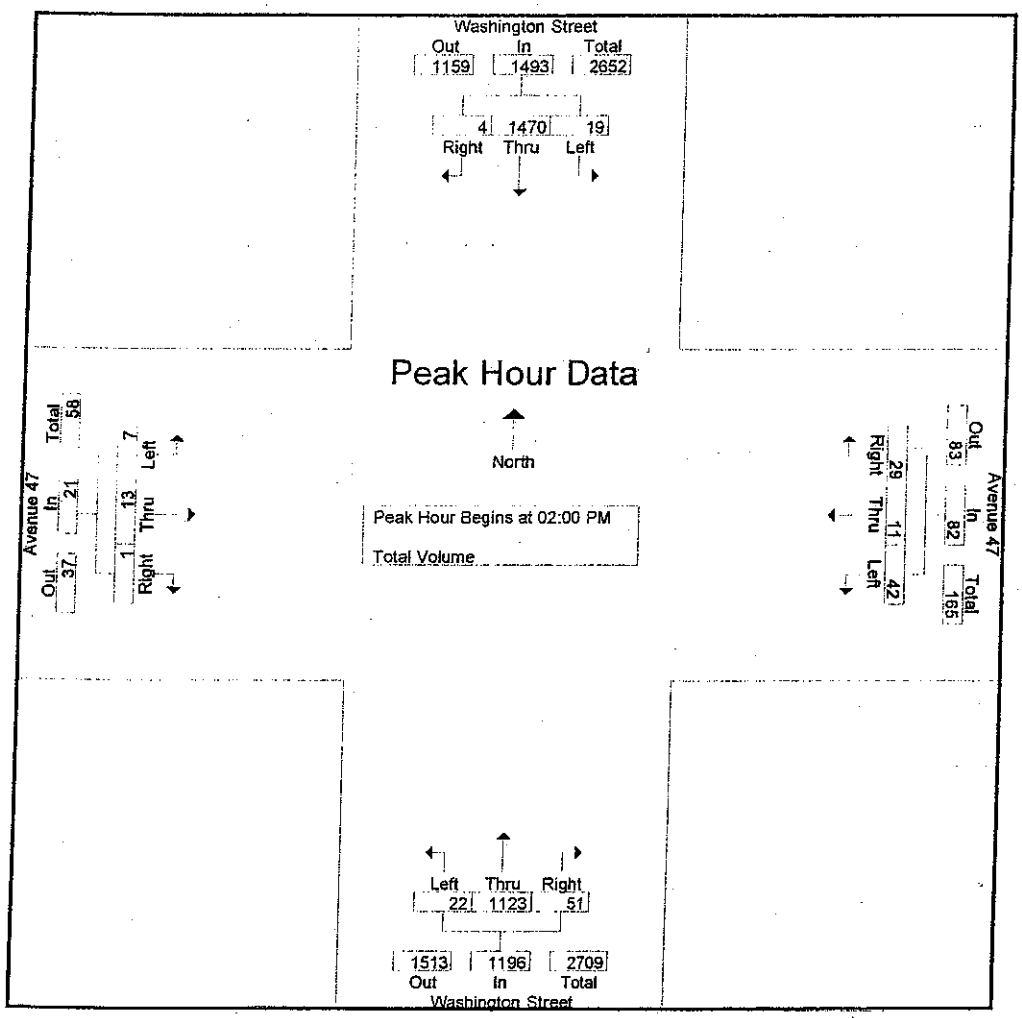
	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:30 PM	5	226	4	235	5	2	8	15	1	207	11	219	0	0	0	0	469
01:45 PM	2	328	4	334	9	3	5	17	10	310	10	330	2	2	0	4	685
Total	7	554	8	569	14	5	13	32	11	517	21	549	2	2	0	4	1154
02:00 PM	2	319	1	322	11	1	8	20	19	294	13	326	1	5	1	7	675
02:15 PM	3	385	0	388	9	7	11	27	3	265	16	284	0	4	0	4	703
02:30 PM	8	364	1	373	11	2	8	21	0	283	19	302	4	4	0	8	704
02:45 PM	6	402	2	410	11	1	2	14	0	281	3	284	2	0	0	2	710
Total	19	1470	4	1493	42	11	29	82	22	1123	51	1196	7	13	1	21	2792
03:00 PM	4	308	1	313	10	0	14	24	1	247	13	261	2	2	0	4	602
03:15 PM	8	339	2	349	11	3	9	23	6	297	13	316	17	1	4	22	710
Grand Total	38	2671	15	2724	77	19	65	161	40	2184	98	2322	28	18	5	51	5258
Apprch %	1.4	98.1	0.6		47.8	11.8	40.4		1.7	94.1	4.2		54.9	35.3	9.8		
Total %	0.7	50.8	0.3	51.8	1.5	0.4	1.2	3.1	0.8	41.5	1.9	44.2	0.5	0.3	0.1	1	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	2	319	1	322	**11**	1	8	20	**19**	**294**	13	**326**	1	**5**	**1**	7	675
02:15 PM	3	385	0	388	9	7	**11**	**27**	3	265	16	284	0	4	0	4	703
02:30 PM	**8**	364	1	373	11	2	8	21	0	283	**19**	302	**4**	4	0	**8**	704
02:45 PM	6	**402**	**2**	**410**	11	1	2	14	0	281	3	284	2	0	0	2	**710**
Total Volume	19	1470	4	1493	42	11	29	82	22	1123	51	1196	7	13	1	21	2792
% App. Total	1.3	98.5	0.3		51.2	13.4	35.4		1.8	93.9	4.3		33.3	61.9	4.8		
PHF	.594	.914	.500	.910	.955	.393	.659	.759	.289	.955	.671	.917	.438	.650	.250	.656	.983

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SAT
Site Code : 00724612
Start Date : 5/26/2007
Page No : 2



Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:15 PM				01:45 PM				02:30 PM			
+0 mins.	2	319	1	322	9	7	11	27	10	**310**	10	**330**	4	4	0	8
+15 mins.	3	385	0	388	**11**	2	8	21	**19**	294	13	326	2	0	0	2
+30 mins.	**8**	364	1	373	11	1	2	14	3	265	16	284	2	2	0	4
+45 mins.	6	**402**	2	**410**	10	0	**14**	24	0	283	**19**	302	**17**	1	**4**	**22**
Total Volume	19	1470	4	1493	41	10	35	86	32	1152	58	1242	25	7	4	36
% App. Total	1.3	98.5	0.3		47.7	11.6	40.7		2.6	92.8	4.7		69.4	19.4	11.1	
PHF	.594	.914	.500	.910	.932	.357	.625	.796	.421	.929	.763	.941	.368	.438	.250	.409

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SUN
Site Code : 00724611
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

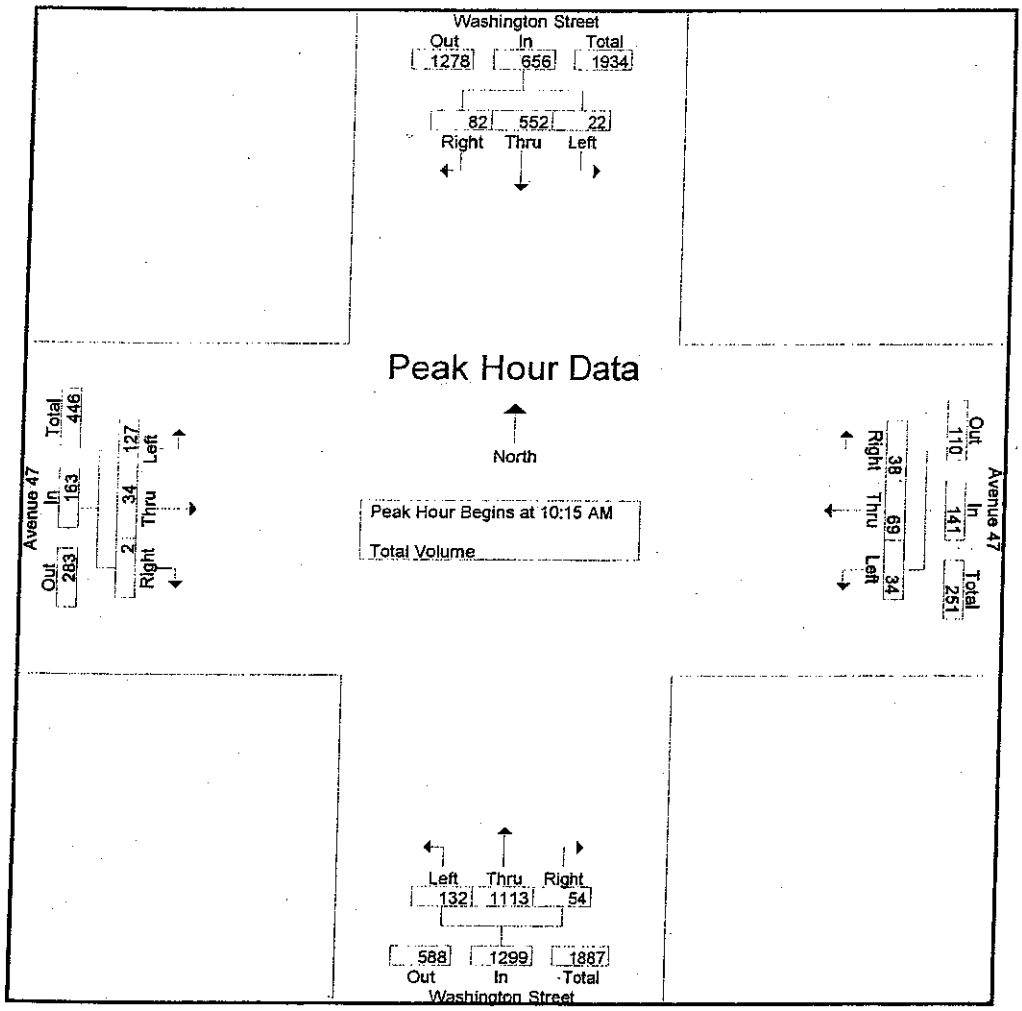
	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
08:30 AM	3	94	18	115	4	8	2	14	8	207	2	217	54	17	1	72	418
08:45 AM	3	69	42	114	2	8	7	17	32	184	7	223	5	3	1	9	363
Total	6	163	60	229	6	16	9	31	40	391	9	440	59	20	2	81	781
09:00 AM	6	100	61	167	0	27	8	35	56	214	4	274	6	4	0	10	486
09:15 AM	2	107	15	124	2	17	7	26	23	231	10	264	2	2	0	4	418
09:30 AM	1	110	4	115	2	3	0	5	2	208	6	216	1	0	0	1	337
09:45 AM	1	105	1	107	7	1	6	14	4	246	6	256	3	2	0	5	382
Total	10	422	81	513	11	48	21	80	85	899	26	1010	12	8	0	20	1623
10:00 AM	9	132	1	142	4	5	13	22	13	234	11	258	7	8	1	16	438
10:15 AM	6	94	4	104	10	3	4	17	3	264	13	280	74	24	2	100	501
10:30 AM	9	171	14	194	7	9	11	27	15	297	18	330	33	6	0	39	590
10:45 AM	6	143	40	189	10	43	9	62	63	319	14	396	12	1	0	13	660
Total	30	540	59	629	31	60	37	128	94	1114	56	1264	126	39	3	168	2189
11:00 AM	1	144	24	169	7	14	14	35	51	233	9	293	8	3	0	11	508
11:15 AM	11	139	5	155	8	4	19	31	14	230	13	257	4	0	0	4	447
11:30 AM	5	189	5	199	9	2	16	27	2	259	15	276	3	1	0	4	506
11:45 AM	6	180	5	191	7	7	11	25	6	264	20	290	5	1	0	6	512
Total	23	652	39	714	31	27	60	118	73	986	57	1116	20	5	0	25	1973
12:00 PM	6	176	3	185	7	3	11	21	14	268	18	300	19	9	1	29	535
12:15 PM	8	219	5	232	11	8	16	35	20	296	19	335	57	10	1	68	670
Grand Total	83	2172	247	2502	97	162	154	413	326	3954	185	4465	293	91	7	391	7771
Apprch %	3.3	86.8	9.9		23.5	39.2	37.3		7.3	88.6	4.1		74.9	23.3	1.8		
Total %	1.1	28	3.2	32.2	1.2	2.1	2	5.3	4.2	50.9	2.4	57.5	3.8	1.2	0.1	5	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 10:15 AM																	
10:15 AM	6	94	4	104	**10**	3	4	17	3	264	13	280	**74**	**24**	**2**	**100**	501
10:30 AM	**9**	**171**	14	**194**	7	9	11	27	15	297	**18**	330	33	6	0	39	590
10:45 AM	6	143	**40**	189	10	**43**	9	**62**	**63**	**319**	14	**396**	12	1	0	13	**660**
11:00 AM	1	144	24	169	7	14	**14**	35	51	233	9	293	8	3	0	11	508
Total Volume	22	552	82	656	34	69	38	141	132	1113	54	1299	127	34	2	163	2259
% App. Total	3.4	84.1	12.5		24.1	48.9	27		10.2	85.7	4.2		77.9	20.9	1.2		
PHF	.611	.807	.513	.845	.850	.401	.679	.569	.524	.872	.750	.820	.429	.354	.250	.408	.856

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SUN
Site Code : 00724611
Start Date : 6/3/2007



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:30 AM				10:30 AM				10:15 AM				10:00 AM			
+0 mins.	5	189	5	199	7	9	11	27	3	264	13	280	7	8	1	16
+15 mins.	6	180	5	191	**10**	**43**	9	**62**	15	297	**18**	330	**74**	**24**	**2**	**100**
+30 mins.	6	176	3	185	7	14	14	35	**63**	**319**	14	**396**	33	6	0	39
+45 mins.	**8**	**219**	5	**232**	8	4	**19**	31	51	233	9	293	12	1	0	13
Total Volume	25	764	18	807	32	70	53	155	132	1113	54	1299	126	39	3	168
% App. Total	3.1	94.7	2.2		20.6	45.2	34.2		10.2	85.7	4.2		75	23.2	1.8	
PHF	.781	.872	.900	.870	.800	.407	.697	.625	.524	.872	.750	.820	.426	.406	.375	.420

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47 / Highland Palms Drive
Weather: Sunny

File Name : LQWA47HSAT
Site Code : 00724687
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

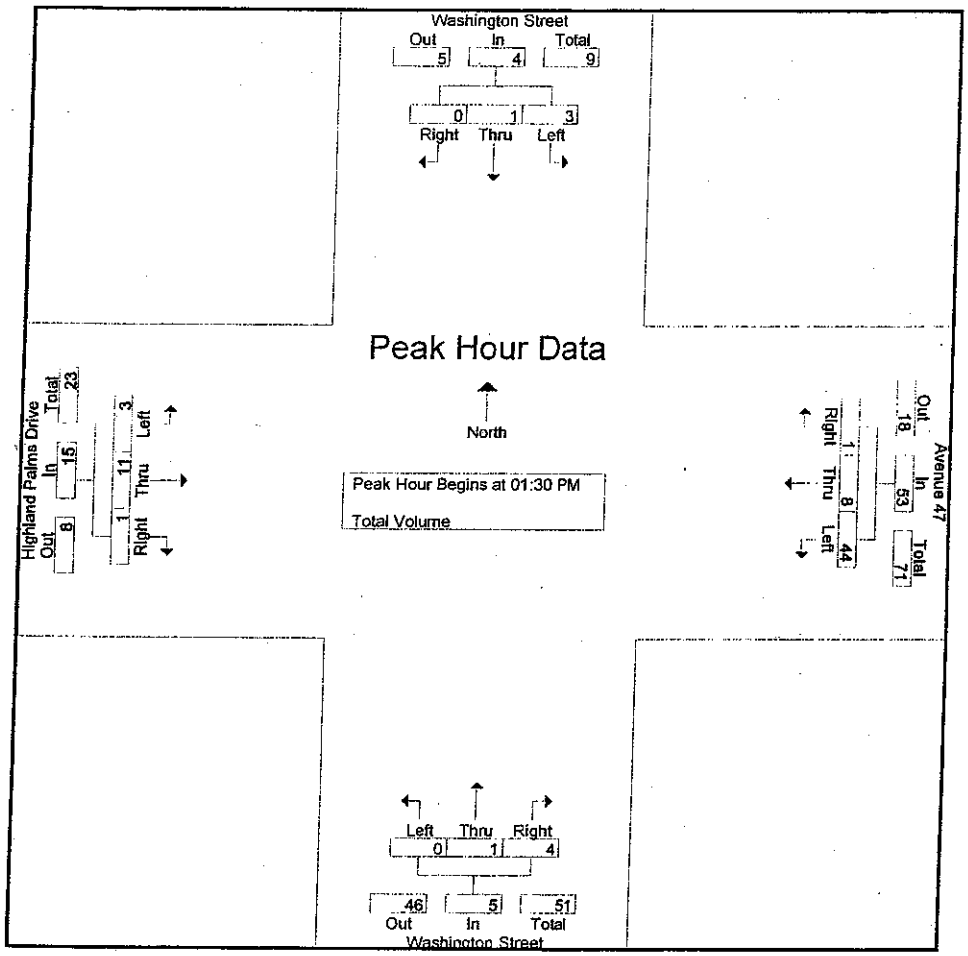
	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:30 PM	1	0	0	1	5	2	0	7	0	1	0	1	3	0	1	4	13
01:45 PM	1	1	0	2	16	1	0	17	0	0	1	1	0	2	0	2	22
Total	2	1	0	3	21	3	0	24	0	1	1	2	3	2	1	6	35
02:00 PM	0	0	0	0	17	3	1	21	0	0	2	2	0	4	0	4	27
02:15 PM	1	0	0	1	6	2	0	8	0	0	1	1	0	5	0	5	15
02:30 PM	2	0	0	2	1	1	1	3	0	0	0	0	0	7	0	7	12
02:45 PM	1	0	1	2	2	1	0	3	0	0	4	4	0	2	1	3	12
Total	4	0	1	5	26	7	2	35	0	0	7	7	0	18	1	19	66
03:00 PM	1	0	0	1	1	1	0	2	0	0	12	12	0	2	0	2	17
03:15 PM	1	0	0	1	8	2	1	11	1	0	12	13	0	4	0	4	29
Grand Total	8	1	1	10	56	13	3	72	1	1	32	34	3	26	2	31	147
Apprch %	80	10	10		77.8	18.1	4.2		2.9	2.9	94.1		9.7	83.9	6.5		
Total %	5.4	0.7	0.7	6.8	38.1	8.8	2	49	0.7	0.7	21.8	23.1	2	17.7	1.4	21.1	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:30 PM																	
01:30 PM	1	0	0	1	5	2	0	7	0	1	0	1	3	0	1	4	13
01:45 PM	1	1	0	2	16	1	0	17	0	0	1	1	0	2	0	2	22
02:00 PM	0	0	0	0	17	3	1	21	0	0	2	2	0	4	0	4	27
02:15 PM	1	0	0	1	6	2	0	8	0	0	1	1	0	5	0	5	15
Total Volume	3	1	0	4	44	8	1	53	0	1	4	5	3	11	1	15	77
% App. Total	75	25	0		83	15.1	1.9		0	20	80		20	73.3	6.7		
PHF	.750	.250	.000	.500	.647	.667	.250	.631	.000	.250	.500	.625	.250	.550	.250	.750	.713

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47 / Highland Palms Drive
Weather: Sunny

File Name : LQWA47HSAT
Site Code : 00724687
Start Date : 5/26/2007
Page No : 2



Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:15 PM				01:30 PM				02:30 PM				02:00 PM			
+0 mins.	1	0	0	1	5	2	0	7	0	0	0	0	0	4	0	4
+15 mins.	2	0	0	2	16	1	0	17	0	0	4	4	0	5	0	5
+30 mins.	1	0	1	2	17	3	1	21	0	0	12	12	0	7	0	7
+45 mins.	1	0	0	1	6	2	0	8	1	0	12	13	0	2	1	3
Total Volume	5	0	1	6	44	8	1	53	1	0	28	29	0	18	1	19
% App. Total	83.3	0	16.7		83	15.1	1.9		3.4	0	96.6		0	94.7	5.3	
PHF	.625	.000	.250	.750	.647	.667	.250	.631	.250	.000	.583	.558	.000	.643	.250	.679

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47 / Highland Palms Drive
Weather: Sunny

File Name : LQWA47HSUN
Site Code : 00724612
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

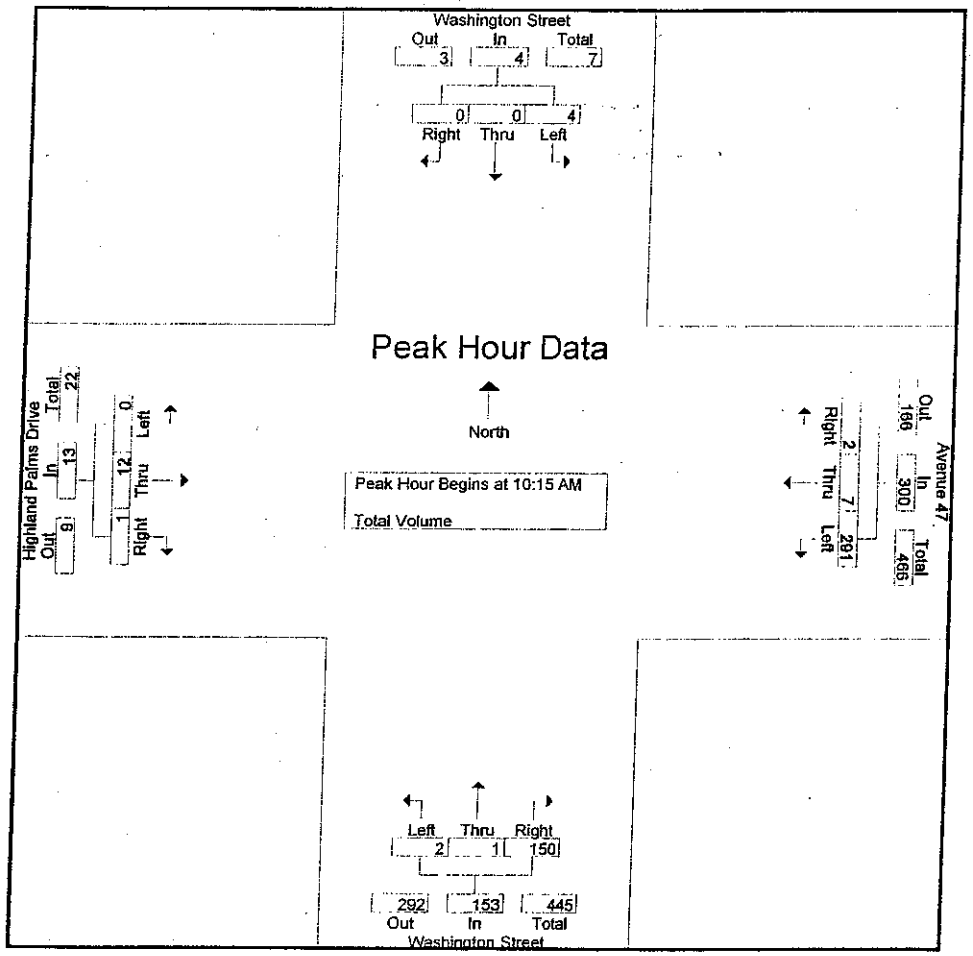
	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
08:30 AM	2	0	0	2	28	2	0	30	1	0	66	67	0	3	1	4	103
08:45 AM	0	1	0	1	89	2	0	91	0	0	10	10	0	0	1	1	103
Total	2	1	0	3	117	4	0	121	1	0	76	77	0	3	2	5	206
09:00 AM	0	1	0	1	141	3	1	145	0	0	6	6	0	0	0	0	152
09:15 AM	1	0	0	1	46	3	1	50	0	0	2	2	0	3	0	3	56
09:30 AM	0	1	0	1	8	1	0	9	0	0	2	2	0	0	0	0	12
09:45 AM	0	0	0	0	2	0	1	3	0	0	1	1	0	0	0	0	4
Total	1	2	0	3	197	7	3	207	0	0	11	11	0	3	0	3	224
10:00 AM	1	0	0	1	10	2	2	14	0	0	22	22	0	2	0	2	39
10:15 AM	2	0	0	2	11	2	0	13	0	1	93	94	0	6	0	6	115
10:30 AM	0	0	0	0	46	1	0	47	0	0	41	41	0	4	0	4	92
10:45 AM	2	0	0	2	147	3	0	150	2	0	7	9	0	1	1	2	163
Total	5	0	0	5	214	8	2	224	2	1	163	166	0	13	1	14	409
11:00 AM	0	0	0	0	87	1	2	90	0	0	9	9	0	1	0	1	100
11:15 AM	0	0	0	0	25	0	0	25	0	0	4	4	0	0	0	0	29
11:30 AM	2	0	0	2	6	0	0	6	0	0	4	4	0	1	0	1	13
11:45 AM	1	0	1	2	13	1	2	16	0	0	2	2	0	0	0	0	20
Total	3	0	1	4	131	2	4	137	0	0	19	19	0	2	0	2	162
12:00 PM	1	0	0	1	19	0	0	19	0	0	34	34	0	4	0	4	58
12:15 PM	2	0	0	2	32	2	1	35	0	0	93	93	1	6	0	7	137
Grand Total	14	3	1	18	710	23	10	743	3	1	396	400	1	31	3	35	1196
Apprch %	77.8	16.7	5.6		95.6	3.1	1.3		0.8	0.2	99		2.9	88.6	8.6		
Total %	1.2	0.3	0.1	1.5	59.4	1.9	0.8	62.1	0.3	0.1	33.1	33.4	0.1	2.6	0.3	2.9	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 10:15 AM																	
10:15 AM	**2**	0	0	**2**	11	2	0	13	0	**1**	**93**	**94**	0	**6**	0	**6**	115
10:30 AM	0	0	0	0	46	1	0	47	0	0	41	41	0	4	0	4	92
10:45 AM	2	0	0	2	**147**	**3**	0	**150**	**2**	0	7	9	0	1	**1**	2	**163**
11:00 AM	0	0	0	0	87	1	**2**	90	0	0	9	9	0	1	0	1	100
Total Volume	4	0	0	4	291	7	2	300	2	1	150	153	0	12	1	13	470
% App. Total	100	0	0		97	2.3	0.7		1.3	0.7	98		0	92.3	7.7		
PHF	.500	.000	.000	.500	.495	.583	.250	.500	.250	.250	.403	.407	.000	.500	.250	.542	.721

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47 / Highland Palms Drive
Weather: Sunny

File Name : LQWA47HSUN
Site Code : 00724612
Start Date : 6/3/2007
Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:30 AM				08:30 AM				10:00 AM				10:00 AM			
+0 mins.	2	0	0	2	28	2	0	30	0	0	22	22	0	2	0	2
+15 mins.	1	0	1	2	89	2	0	91	0	1	93	94	0	6	0	6
+30 mins.	1	0	0	1	141	3	1	145	0	0	41	41	0	4	0	4
+45 mins.	2	0	0	2	46	3	1	50	2	0	7	9	0	1	1	2
Total Volume	6	0	1	7	304	10	2	316	2	1	163	166	0	13	1	14
% App. Total	85.7	0	14.3		96.2	3.2	0.6		1.2	0.6	98.2		0	92.9	7.1	
PHF	.750	.000	.250	.875	.539	.833	.500	.545	.250	.250	.438	.441	.000	.542	.250	.583

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: North Church Driveway
Weather: Sunny

File Name : LQWADWNSAT
Site Code : 00724623
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
01:45 PM	0	6	6	0	0	0	1	0	1	7
Total	0	6	6	0	0	0	1	0	1	7
02:00 PM	0	19	19	1	0	1	1	0	1	21
02:15 PM	0	9	9	0	0	0	0	1	1	10
02:30 PM	0	4	4	0	0	0	0	0	0	4
02:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	32	32	1	0	1	2	1	3	36
03:00 PM	0	6	6	0	0	0	0	0	0	6
03:15 PM	0	2	2	0	0	0	3	12	15	17
03:30 PM	0	12	12	0	0	0	10	17	27	39
03:45 PM	0	11	11	0	0	0	3	0	3	14
Total	0	31	31	0	0	0	16	29	45	76
Grand Total	0	69	69	1	0	1	19	30	49	119
Apprch %	0	100		100	0		38.8	61.2		
Total %	0	58	58	0.8	0	0.8	16	25.2	41.2	

	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 01:45 PM to 03:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	0	6	6	0	0	0	0	0	0	6
03:15 PM	0	2	2	0	0	0	3	12	15	17
03:30 PM	0	**12**	**12**	0	0	0	**10**	**17**	**27**	**39**
03:45 PM	0	11	11	0	0	0	3	0	3	14
Total Volume	0	31	31	0	0	0	16	29	45	76
% App. Total	0	100		0	0		35.6	64.4		
PHF	.000	.646	.646	.000	.000	.000	.400	.426	.417	.487

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: North Church Driveway
Weather: Sunny

File Name : LQWADWNSAT
Site Code : 00724623
Start Date : 5/26/2007
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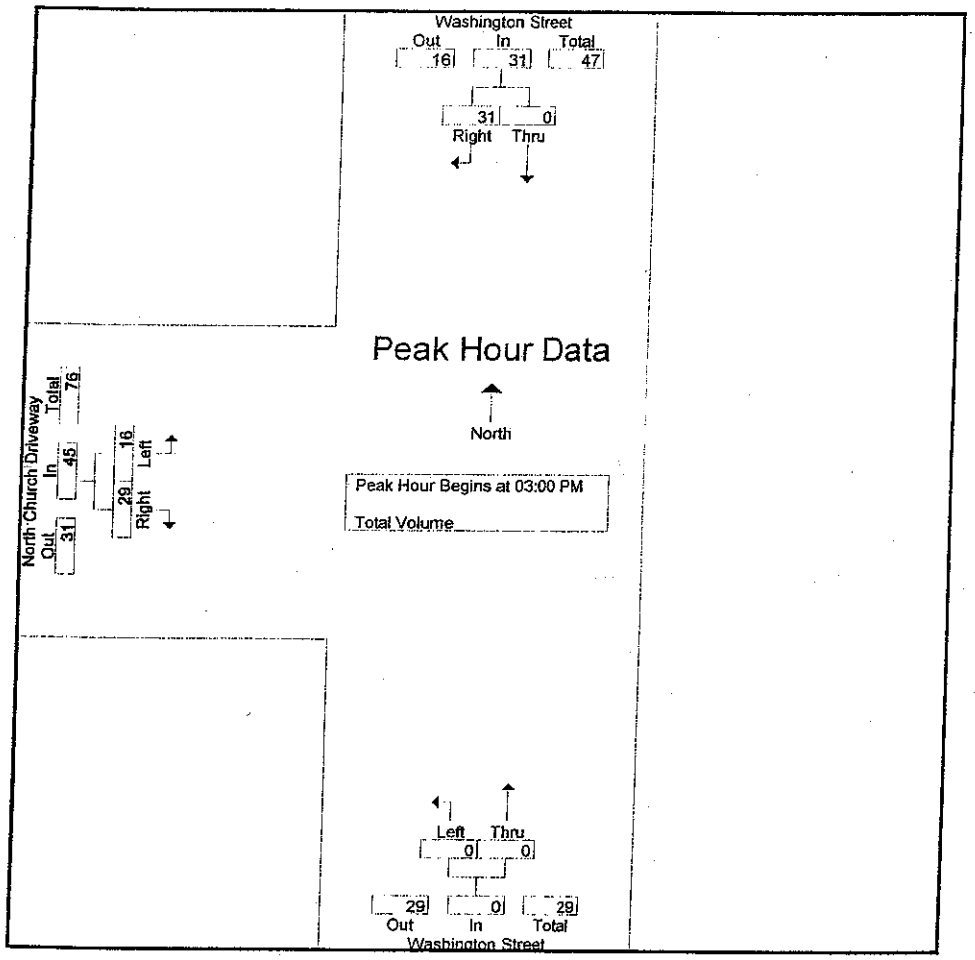


Peak Hour Analysis From 01:45 PM to 03:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	01:45 PM			01:45 PM			03:00 PM		
+0 mins.	0	6	6	0	0	0	0	0	0
+15 mins.	0	19	19	1	0	1	3	12	15
+30 mins.	0	9	9	0	0	0	10	17	27
+45 mins.	0	4	4	0	0	0	3	0	3
Total Volume	0	38	38	1	0	1	16	29	45
% App. Total	0	100		100	0		35.6	64.4	
PHF	.000	.500	.500	.250	.000	.250	.400	.426	.417

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: South Church Driveway
Weather: Sunny

File Name : LQWADWSSAT
Site Code : 00724623
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

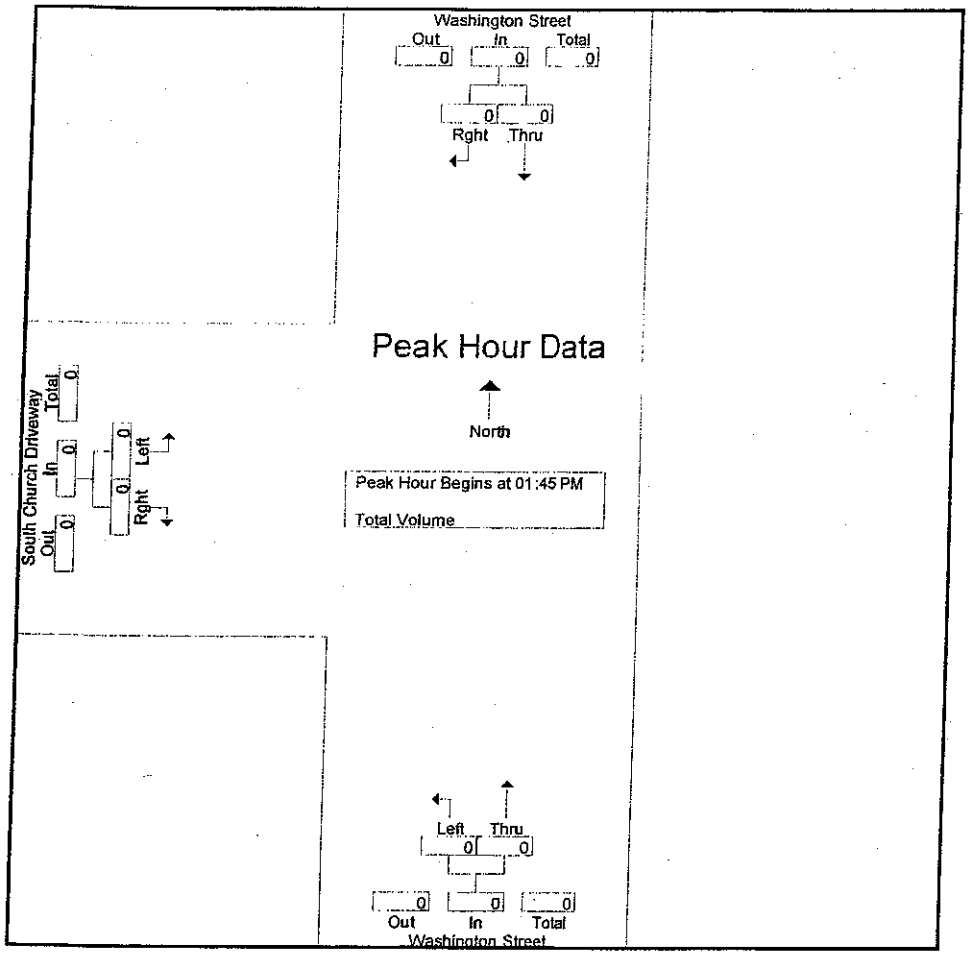
	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
01:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
Peak Hour Analysis From 01:45 PM to 03:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:45 PM										
01:45 PM	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: South Church Driveway
Weather: Sunny

File Name : LQWADWSSAT
Site Code : 00724623
Start Date : 5/26/2007
Page No : 2



Peak Hour Analysis From 01:45 PM to 03:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:45 PM			01:45 PM			01:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: North Church Driveway
Weather: Sunny

File Name : LQWADWNSUN
Site Code : 00724623
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

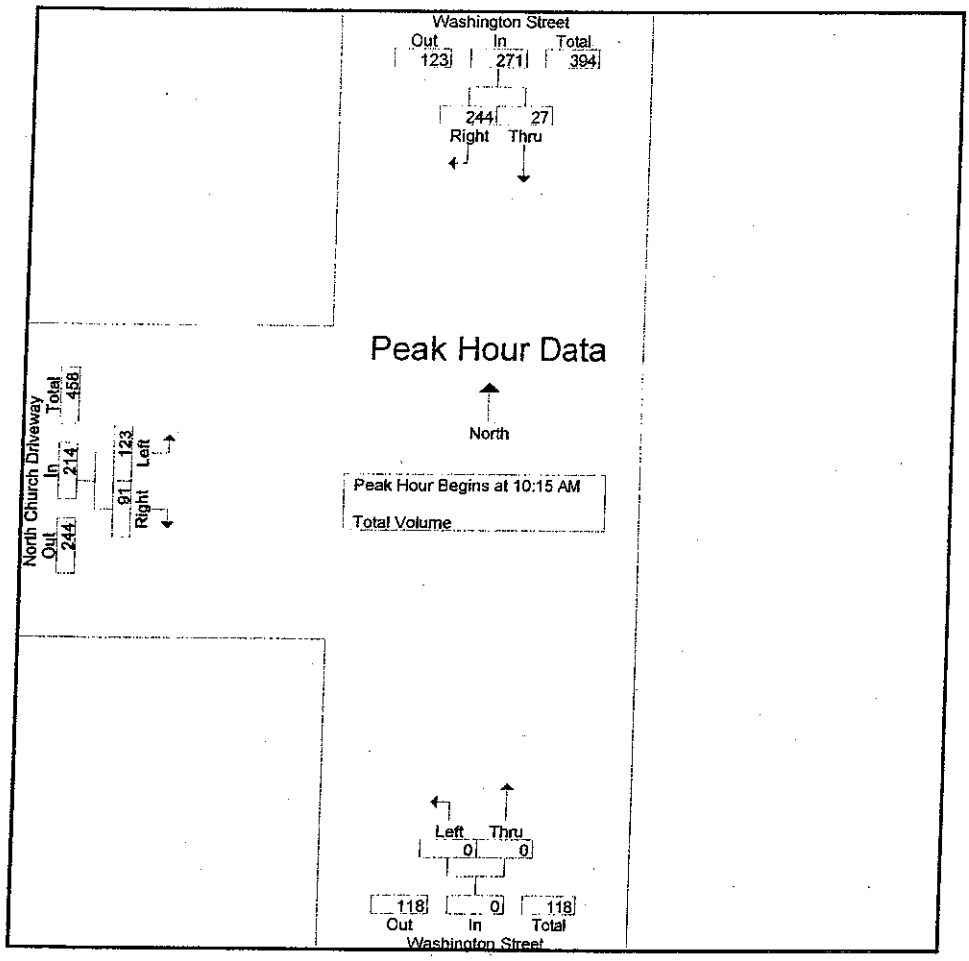
	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
08:30 AM	14	28	42	0	0	0	64	37	101	143
08:45 AM	2	68	70	1	0	1	9	5	14	85
Total	16	96	112	1	0	1	73	42	115	228
09:00 AM	28	100	128	0	0	0	5	4	9	137
09:15 AM	15	36	51	0	0	0	1	3	4	55
09:30 AM	2	7	9	0	0	0	1	1	2	11
09:45 AM	0	2	2	0	0	0	0	0	0	2
Total	45	145	190	0	0	0	7	8	15	205
10:00 AM	1	10	11	0	0	0	17	9	26	37
10:15 AM	13	7	20	0	0	0	81	74	155	175
10:30 AM	2	33	35	0	0	0	25	9	34	69
10:45 AM	5	122	127	0	0	0	9	7	16	143
Total	21	172	193	0	0	0	132	99	231	424
11:00 AM	7	82	89	0	0	0	8	1	9	98
11:15 AM	3	21	24	0	0	0	4	2	6	30
11:30 AM	2	7	9	0	0	0	3	2	5	14
11:45 AM	1	11	12	0	0	0	2	2	4	16
Total	13	121	134	0	0	0	17	7	24	158
12:00 PM	5	15	20	0	0	0	21	5	26	46
12:15 PM	16	23	39	0	0	0	67	57	124	163
Grand Total	116	572	688	1	0	1	317	218	535	1224
Apprch %	16.9	83.1		100	0		59.3	40.7		
Total %	9.5	46.7	56.2	0.1	0	0.1	25.9	17.8	43.7	

	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 10:15 AM										
10:15 AM	13	7	20	0	0	0	81	74	155	175
10:30 AM	2	33	35	0	0	0	25	9	34	69
10:45 AM	5	122	127	0	0	0	9	7	16	143
11:00 AM	7	82	89	0	0	0	8	1	9	98
Total Volume	27	244	271	0	0	0	123	91	214	485
% App. Total	10	90		0	0		57.5	42.5		
PHF	.519	.500	.533	.000	.000	.000	.380	.307	.345	.693

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: North Church Driveway
Weather: Sunny

File Name : LQWADWNSUN
Site Code : 00724623
Start Date : 6/3/2007
Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:30 AM			08:30 AM			10:00 AM		
+0 mins.	14	28	42	0	0	0	17	9	26
+15 mins.	2	68	70	1	0	1	81	74	155
+30 mins.	28	100	128	0	0	0	25	9	34
+45 mins.	15	36	51	0	0	0	9	7	16
Total Volume	59	232	291	1	0	1	132	99	231
% App. Total	20.3	79.7		100	0		57.1	42.9	
PHF	.527	.580	.568	.250	.000	.250	.407	.334	.373

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: South Church Driveway
Weather: Sunny

File Name : LQWADWSSUN
Site Code : 00724623
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

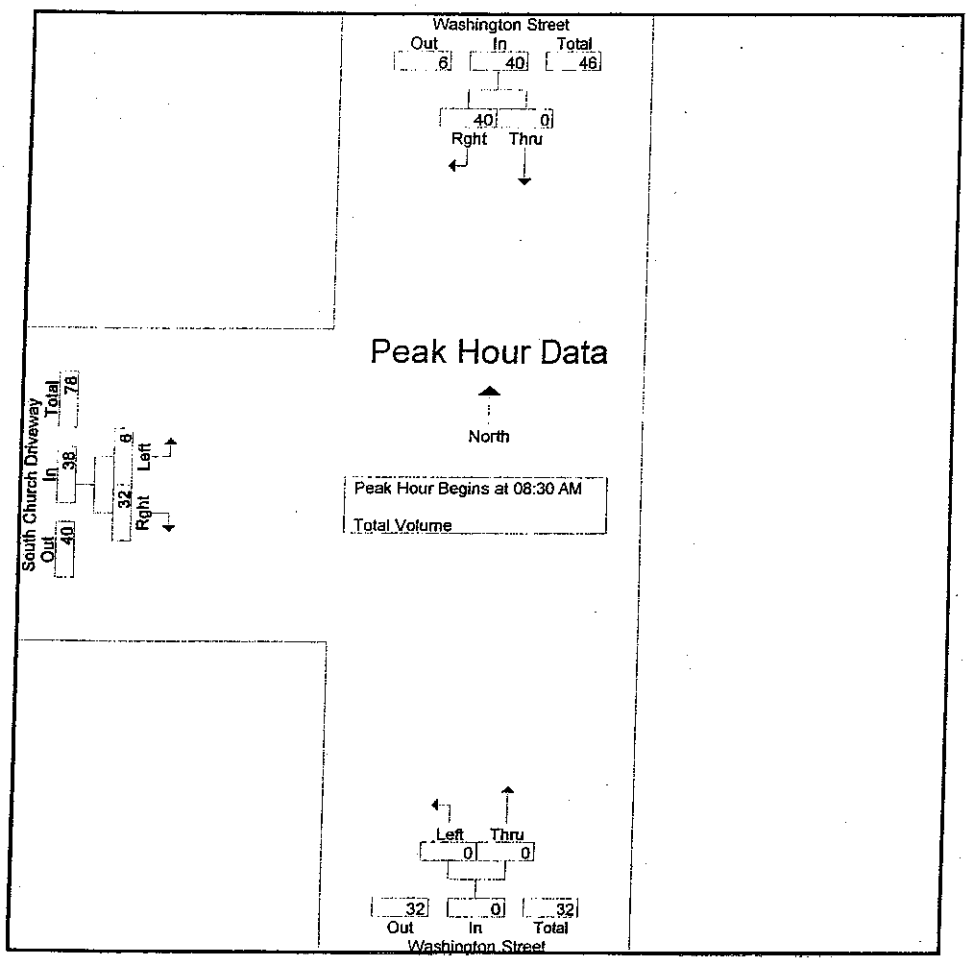
	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
08:30 AM	0	0	0	0	0	0	5	32	37	37
08:45 AM	0	2	2	0	0	0	1	0	1	3
Total	0	2	2	0	0	0	6	32	38	40
09:00 AM	0	25	25	0	0	0	0	0	0	25
09:15 AM	0	13	13	0	0	0	0	0	0	13
09:30 AM	0	1	1	0	0	0	0	0	0	1
09:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	39	39	0	0	0	0	0	0	39
10:00 AM	0	1	1	0	0	0	2	2	4	5
10:15 AM	0	0	0	0	0	0	15	41	56	56
10:30 AM	0	0	0	0	0	0	1	4	5	5
10:45 AM	0	3	3	0	0	0	0	1	1	4
Total	0	4	4	0	0	0	18	48	66	70
11:00 AM	0	8	8	0	0	0	0	0	0	8
11:15 AM	0	5	5	0	0	0	0	0	0	5
11:30 AM	0	1	1	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	14	14	0	0	0	0	0	0	14
12:00 PM	0	0	0	0	0	0	4	1	5	5
12:15 PM	0	2	2	0	0	0	8	39	47	49
Grand Total	0	61	61	0	0	0	36	120	156	217
Apprch %	0	100		0	0		23.1	76.9		
Total %	0	28.1	28.1	0	0	0	16.6	55.3	71.9	

	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:30 AM										
08:30 AM	0	0	0	0	0	0	5	32	37	37
08:45 AM	0	2	2	0	0	0	1	0	1	3
09:00 AM	0	25	25	0	0	0	0	0	0	25
09:15 AM	0	13	13	0	0	0	0	0	0	13
Total Volume	0	40	40	0	0	0	6	32	38	78
% App. Total	0	100		0	0		15.8	84.2		
PHF	.000	.400	.400	.000	.000	.000	.300	.250	.257	.527

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: South Church Driveway
Weather: Sunny

File Name : LQWADWSSUN
Site Code : 00724623
Start Date : 6/3/2007
Page No : 2



Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:45 AM			08:30 AM			09:30 AM		
+0 mins.	0	2	2	0	0	0	0	0	0
+15 mins.	0	25	25	0	0	0	0	0	0
+30 mins.	0	13	13	0	0	0	2	2	4
+45 mins.	0	1	1	0	0	0	15	41	56
Total Volume	0	41	41	0	0	0	17	43	60
% App. Total	0	100		0	0		28.3	71.7	
PHF	.000	.410	.410	.000	.000	.000	.283	.262	.268

Paul Goble

From: Paul Goble
Sent: Friday, August 24, 2007 2:06 PM
To: 'John Vuksec (vuksic@dc.rr.com)'
Cc: Andy Mogensen; 'Reggie Greene'; Ed Wimmer
Subject: St. Francis Traffic Study & Intersection Design

Gentlemen,

Please find a brief summary which reflects the Public Works review of both the preliminary intersection configuration and the traffic study for the Washington & Lake La Quinta Drive.

8/20-24/2007 - Paul reviewed MDS intersection plans & Willdan study (July 23, 2007 report) with Nazir in Traffic Staff meeting:

Willdan report redlines:

1. City requires Willdan traffic volumes to include the Laing Homes project.

2. Report should clearly calibrate differences between existing and proposed conditions.

3. Please recheck left turn storage requirements at south leg of intersection - evaluate the need of a 2nd left turn lane for peak conditions assuming 250 ft of pocket storage.

Redlines for MDS (Laing Homes) preliminary intersection configuration dated 7/27/2007:

1. Left turn pocket at southern intersection leg turning west into Laing/St. Francis should be extended to at least 250 ft. The existing storage pocket of 150 ft. is insufficient. Review of final storage capacity still pending revision to Willdan study.

2. Extension of the median nose at the southern intersection leg requested to eliminate most or all of painted median. City observes painted median noses are created improper turning movement and cheating U turns.

3. Confirm that east leg island rework will be included in offsite street plan submittal.

4. Elimination of the left turn pocket into the Laing project at the west leg is requested. The pocket will create a stacking capacity problem and promoting cheating across dual left lane lines.

Please advise if you have any further questions.

Thanks

Paul Goble, PE
Public Works Senior Engineer
City of La Quinta
(760) 777-7087
pgoble@la-quinta.org

PREST · VUKSIC
ARCHITECTS

MEMORANDUM

TO: Andrew Mogensen
CO: City of La Quinta
FROM: Samantha McAuliffe for John Vuksic
DATE: August 1, 2007
RE: Traffic Analysis
PROJECT: 25066 – St. Francis

Andy – Attached is the Traffic Analysis for St. Francis of Assisi. Please review and send any comments directly to John Vuksic.

WILLDAN
Serving Public Agencies

13191 Crossroads Parkway North, Suite 405
Industry, California 91746-3497
562/908-6200 fax 562/695-2120
www.willdan.com

July 23, 2007

Mr. John Vuksic
President
Vuksic Architects
44530 San Pablo Avenue, Suite 200
Pal Desert, CA 92260

Subject: Traffic Analysis for Saint Francis of Assisi Catholic Church Improvement Project

Dear Mr. Vuksic:

INTRODUCTION

The Saint Francis of Assisi Catholic Church (Church) will expand its parking facilities to add additional parking spaces. The City of La Quinta requested a Traffic Impact Report to address trip generation, intersection capacity utilization (ICU), parking generation, and left turn and right turn storage requirements. This letter report addresses the existing traffic volumes generated by the Church. It does not address traffic volumes that will be generated by adjacent developments.

DATA COLLECTION

Turning movement counts were taken on Saturday, May 26, 2007, between 1:30 p.m. and 3:30 p.m. and on Sunday, June 3, 2007, between 8:30 a.m. and 12:30 p.m. These dates and times were chosen based on discussions with the Church regarding current Sunday church service and Saturday special event schedules. The counts were taken at the following locations:

- Washington Street Frontage and the south Church driveway.
- Washington Street Frontage and the north Church driveway.
- Washington Street Frontage and Highland Palms Drive.
- Washington Street and Highland Palms/Avenue 47.
- Washington Street and Lake La Quinta Drive.

Average Daily Traffic (ADT) counts were not gathered for Washington Boulevard.

The peak hour identified for Saturday was 2:30 p.m. to 3:30 p.m. and the peak hour for Sunday was 10:15 a.m. to 11:15 a.m. Saturday Church volumes were significantly lower than Sunday volumes; therefore, Sunday traffic volumes were used in this analysis and are depicted in Exhibit A. Saturday traffic volumes are depicted in Exhibit B.

The Church's expansion of its parking facilities will require Washington Street frontage to be abandoned, including the existing north and south Church driveways. A new driveway will be constructed to provide access to Washington Street. A traffic signal will also be installed at Washington Street and Lake La Quinta Drive to provide additional access to the Church property.

The Sunday peak hour volumes were redistributed from the existing access points to the new access points to determine the traffic impacts with the new Church parking facilities. Exhibit C depicts the redistributed traffic volumes. In addition, a seasonal adjustment was made to the Sunday peak hour volume. May 16th to September 30th is considered off-season and the measured volumes may be increased up to 40 percent. Exhibit D identifies the redistributed volumes and includes the 40 percent seasonal increase.

Trip Generation

Trip generation was determined for the existing Church facilities. The Institute of Transportation Engineers (ITE) Trip Generation book, 7th Edition, was used to calculate trips based on the number of seats. The Church has 760 existing seats. Based on the ITE rates, the Church is estimated to generate the following:

Table 1
St. Francis of Assisi Catholic Church
Weekend Trip Generation Rates (trips/seat) vs. Seats
Land Use Code: 560
Number of Seats: 760

Average Saturday Rate	Average Saturday Trips	Average Saturday Peak Hour Rate	Average Saturday Peak Hour Trips	Average Sunday Rate	Average Sunday Trips	Average Sunday Peak Hour Rate	Average Sunday Peak Hour Trips
0.9	684	0.6	456	1.53	1163	0.63	479

Parking Generation

The ITE Parking Generation book, 3rd Edition, was used to calculate the peak period parking demand of the existing Church facilities. Table 2 indicates the parking demand to be 122 spaces on a Sunday.

Table 2
St. Francis of Assisi Catholic Church
Average Peak Period Parking Demand vs. Seats on a Sunday
Land Use Code: 560
Number of Seats: 760

Average Rate (vehicles/seat)	**Average Parking Demand**
0.16	122

Chapter 9 of the City of La Quinta Municipal Code states that one parking space per three seats shall be provided for all "Assembly Uses."

Table 3
St. Francis of Assisi Catholic Church
City of La Quinta Municipal Code, Chapter 9
Assembly Uses
Number of Seats: 760

Average Rate (vehicles/seat)	**Required Spaces**
0.333	253

As shown in Table 3, the City's Municipal Code requires 253 parking spaces for the Church.

INTERSECTION CAPACITY UTILIZATION (ICU)

An ICU analysis was performed for the proposed traffic signal at the intersection of Washington Street and Lake La Quinta Drive and at the proposed north driveway entrance. The ICU method computes a Level of Service (LOS) for an entire intersection based on a volume to capacity (V/C) ratio summation for key conflicting movements. LOS is a relative measure of driver satisfaction with ranges

from "A" (free flow: ICU less than 0.600) to "F" (forced flow: ICU value in excess of 1.000). The following is a description of levels of service:

- LOS A (ICU less than 0.600) – Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.

- LOS B (ICU 0.601 to 0.700) – Operating speeds beginning to be affected by other traffic; between one and ten percent of the signal cycle have one or more vehicles which wait through more than one signal cycle during peak traffic periods.

- LOC C (ICU 0.701 to 0.800) – Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; recommended ideal design standard.

- LOS D (ICU 0.801 to 0.900) – Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; often used as design standard in urban areas.

- LOS E (ICU 0.901 to 1.000) – Capacity; the maximum traffic volume an intersection can accommodate; restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.

- LOS F (ICU over 1.000) – Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can dip to zero; traffic volume will be less than the volume which occurs at Level of Service E.

Based on the ICU analysis for Washington Street and Lake La Quinta Drive, the intersection will be operating at a LOS A during the Sunday peak hour (Table 4).

Table 4

Intersection	v/c	LOS
Washington Street/North Driveway Entrance	0.463	A

The methodology used to analyze the north driveway entrance is described in the 2000 Highway Capacity Manual (HCM), published by the Transportation Research Board. This methodology was used because the driveway will be stop-controlled. LOS of stop-controlled intersections is defined in terms of delay, which is a measure of driver comfort, frustration, fuel consumption, and loss of time.

The HCM analysis method determines the available acceptable gaps in the major traffic stream used by vehicles crossing or turning through the stream. The number of available gaps affects the delay experienced by motorists required to yield. This delay is calculated and a LOS designation is assigned at incremental delay times. LOS A corresponds to little or no delay whereas LOS F corresponds to very long delays.

Based on the HCM analysis for the north driveway entrance, the access will be operating a LOS C during the Sunday peak hour (Table 5).

Table 5

Intersection	Eastbound Approach	
	Delay	LOS
Washington Street/North Driveway Entrance	22.5	C

Note: delay is in seconds

LEFT-TURN AND RIGHT-TURN STORAGE CALCULATIONS

In general, an accepted method to determine turning lane storage lengths is to provide 1 foot for every turning vehicle in the peak hour. The minimum storage length is generally taken to be 50 feet. The maximum storage length for left-turn pockets is taken to be 300 feet. For lengths over 300 feet, dual left-turn lanes are recommended.

The storage length was determined for the following locations:

- Southbound Washington Street right turns at the north driveway entrance.
- Southbound Washington Street right turns at Lake La Quinta Drive.
- Northbound Washington Street left turns at Lake La Quinta Drive.

The analysis was based on the redistributed traffic volumes of existing vehicles entering and exiting the Saint Francis Church property.

Table 6

Turning Movement Location	Volume (vehicles/hr)	Minimum Storage Length (feet)	Recommended Storage Length (feet)
Southbound Washington Street right turns at north driveway entrance	87	87	90
Southbound Washington Street right turns at Lake La Quinta Drive	129	129	130
Northbound Washington Street left turns at Lake La Quinta Drive	192	192	195

Table 6 indicates the recommended storage lengths for each intersection to range from 90 to 195 feet.

SUMMARY

This Traffic Impact Report has been completed to address trip generation, parking generation, intersection capacity utilization, and left turn/right turn storage requirements. The average number of trips generated by the Church on a Sunday is 479 trips during the peak hour and the average parking demand is 122 spaces. The City of La Quinta requires 253 parking spaces per the La Quinta Municipal Code, Chapter 9. The existing parking lot currently has 184 spaces and the expansion will yield an additional 406 spaces for a total of 590. The expansion will exceed the parking requirements for the City of La Quinta and ITE parking generation rates.

The ICU analysis for Washington Street and Lake La Quinta Drive shows a LOS A during the Sunday peak hour and exceeds the recommended ideal design standard. The HCM analysis for Washington Street and the north driveway entrance shows a LOS C and a delay of 22.5 seconds during the peak hour.

The left-turn and right-turn storage lengths were determined based on the redistributed traffic volumes. The recommended storage lengths are:

- 90 feet for southbound Washington Street right turns at the north driveway entrance
- 130 feet for southbound Washington Street right turns at Lake La Quinta Drive
- 195 feet for northbound Washington Street left turns at Lake La Quinta Drive

Based on the 50 MPH posted speed limit on Washington Street, it is further recommended that 150 feet reverse curves be used for the turning lane bay tapers.

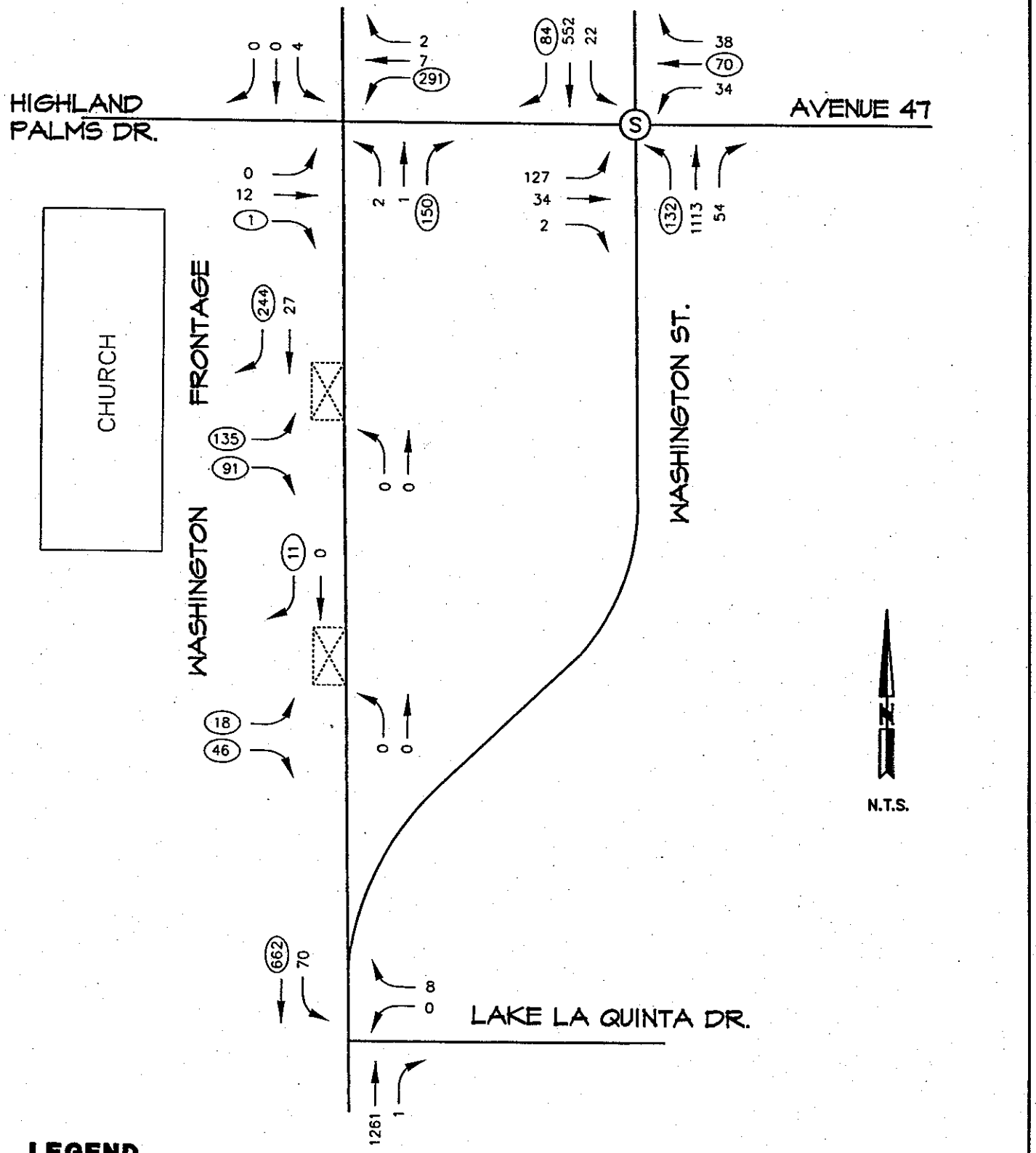
Should you have any questions regarding this study, please contact me at (562) 908-6221

Sincerely,

WILLDAN

Reggie Greene
Senior Design Engineer

RG:lss (06160)
15764/3000/L01



LEGEND

XXX PEAK HOUR VOLUME

(XXX) PEAK HOUR VOLUME TO BE DISTRIBUTED TO NEW ACCESS POINTS

(S) SIGNALIZED INTERSECTION

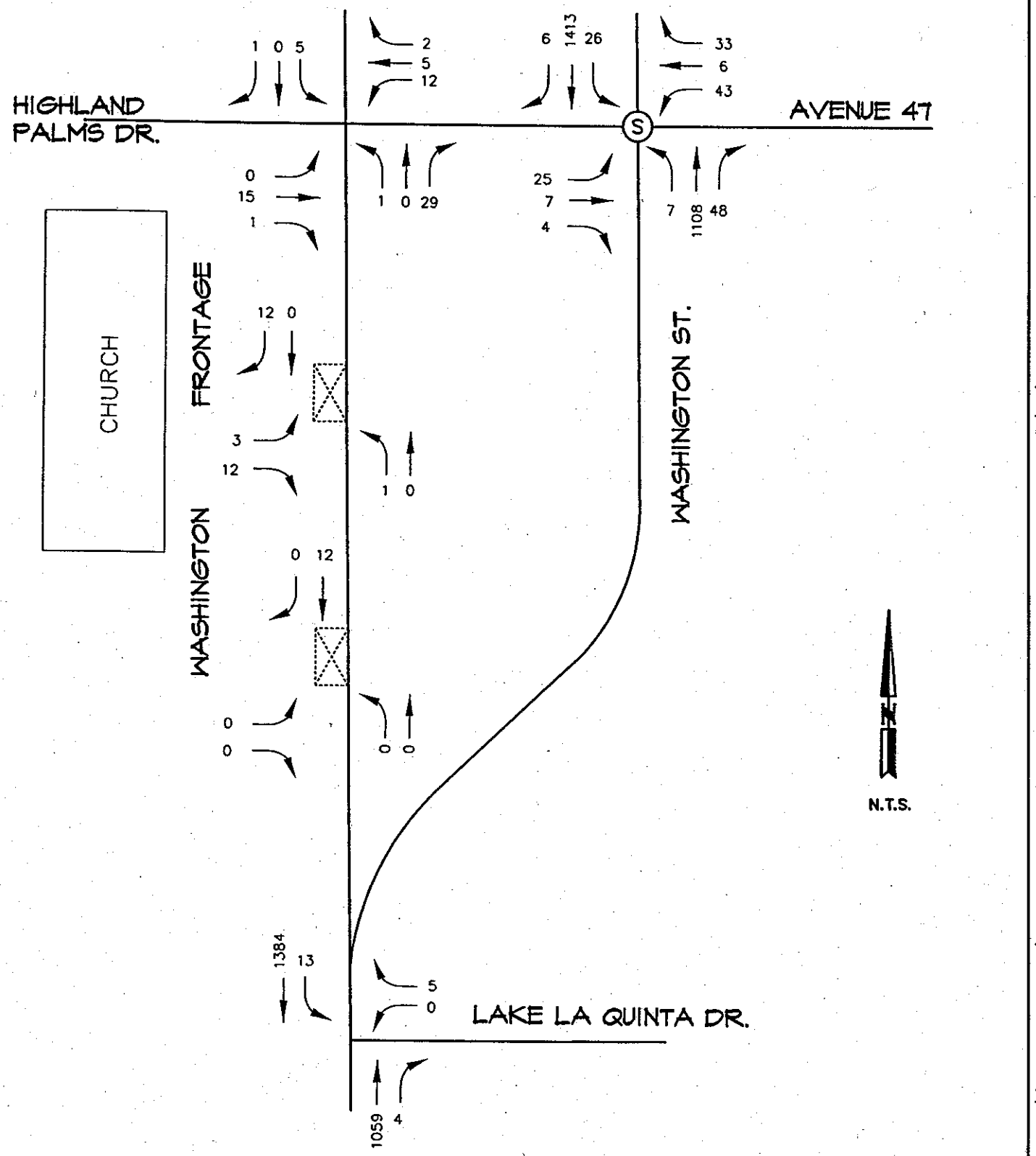
EXHIBIT A

CITY OF LA QUINTA

TURNING MOVEMENT COUNTS
SUNDAY PEAK HOUR

7/23/2007

O:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg



LEGEND

XXX PEAK HOUR VOLUME

(S) SIGNALIZED INTERSECTION

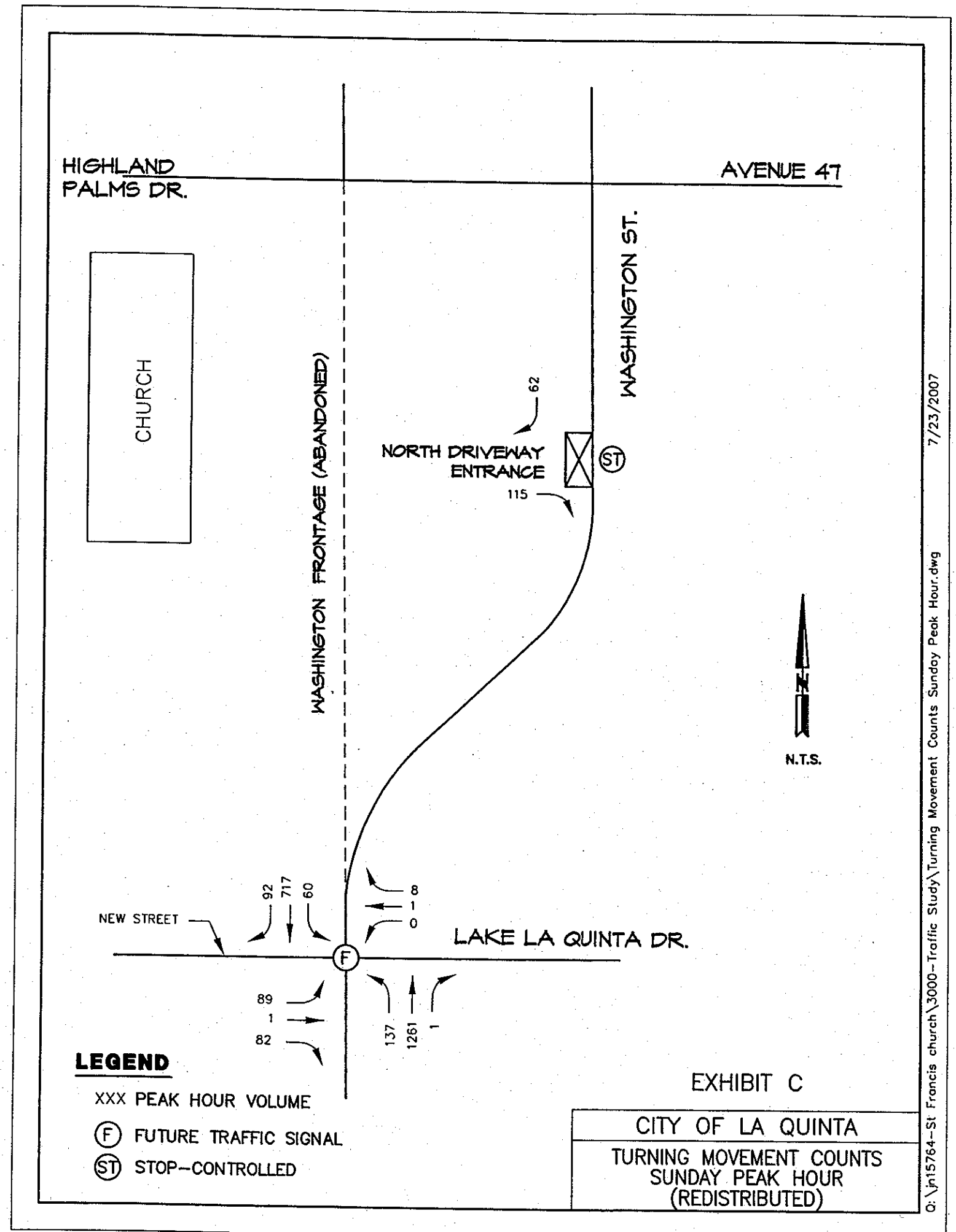
EXHIBIT B

CITY OF LA QUINTA

TURNING MOVEMENT COUNTS
SATURDAY PEAK HOUR

7/23/2007

Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg


HIGHLAND PALMS DR.
AVENUE 47
WASHINGTON ST.
WASHINGTON FRONTAGE (ABANDONED)
CHURCH
62
NORTH DRIVEWAY ENTRANCE
ST
115
N.T.S.
92
717
60
8
1
0
NEW STREET
LAKE LA QUINTA DR.
F
89
1
82
137
1261
1
LEGEND
XXX PEAK HOUR VOLUME
F FUTURE TRAFFIC SIGNAL
ST STOP-CONTROLLED
EXHIBIT C
CITY OF LA QUINTA
TURNING MOVEMENT COUNTS
SUNDAY PEAK HOUR
(REDISTRIBUTED)
7/23/2007
Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg

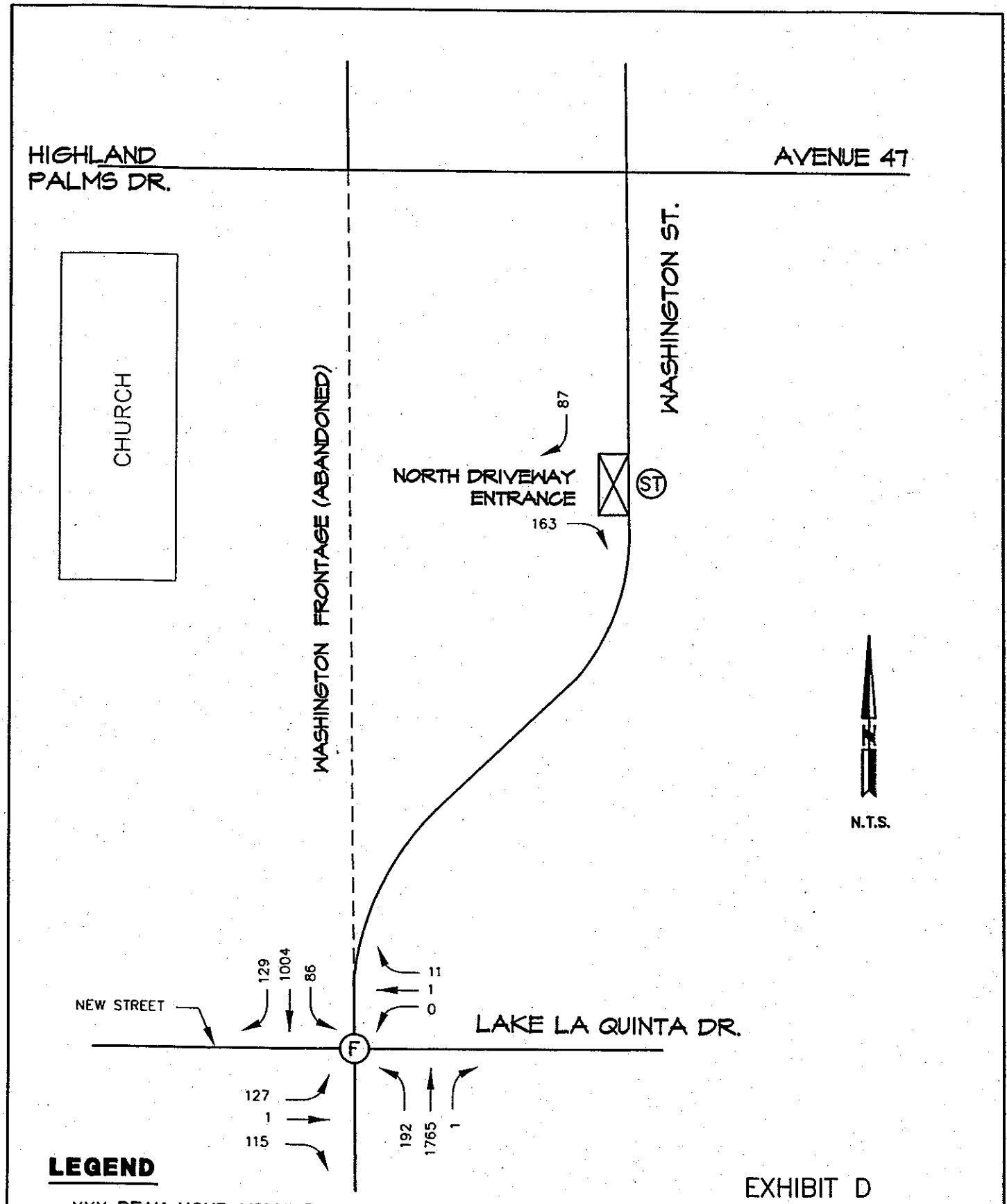


EXHIBIT D

CITY OF LA QUINTA

TURNING MOVEMENT COUNTS
SUNDAY PEAK HOUR
(REDISTRIBUTED)

7/23/2007

Q:\jn15764-St Francis church\3000-Traffic Study\Turning Movement Counts Sunday Peak Hour.dwg

APPENDIX

- Traffic Volumes
- ICU Calculations
- HMC Calculations

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SAT
Site Code : 00724612
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

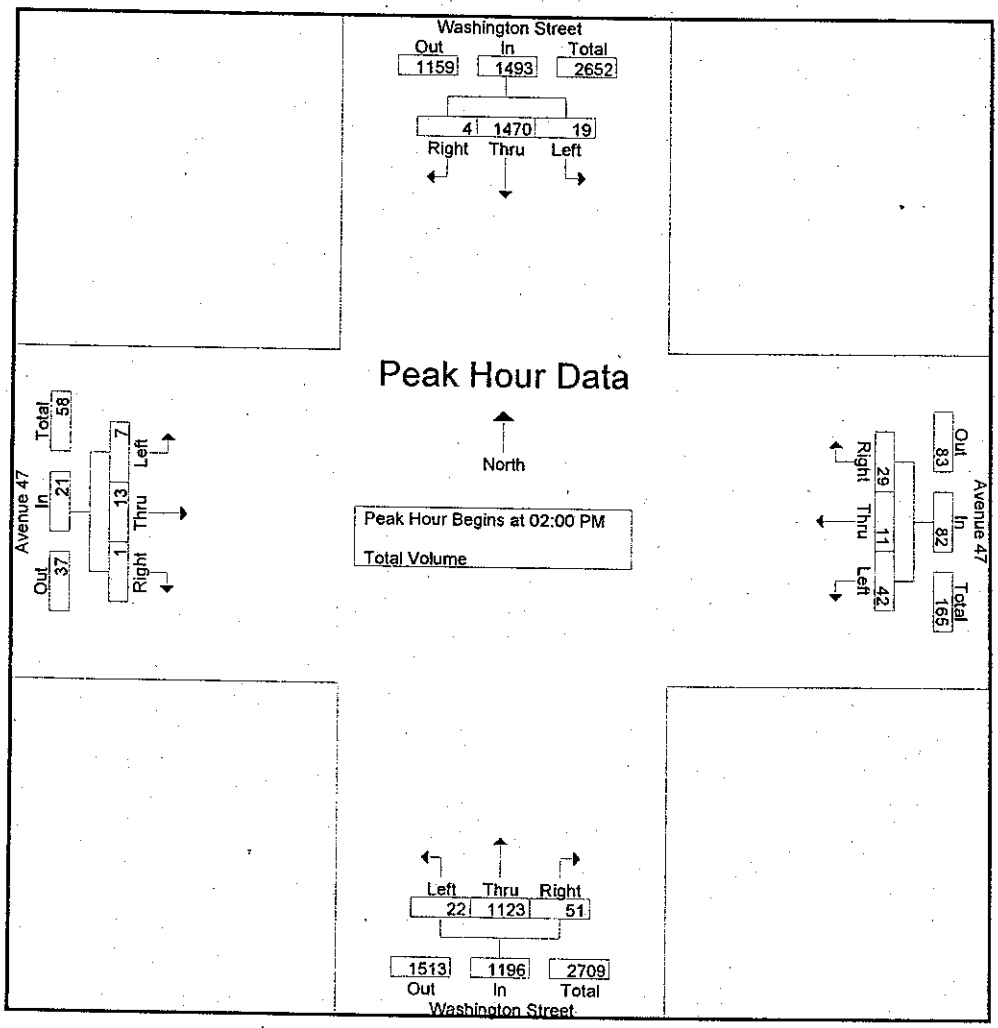
	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:30 PM	5	226	4	235	5	2	8	15	1	207	11	219	0	0	0	0	469
01:45 PM	2	328	4	334	9	3	5	17	10	310	10	330	2	2	0	4	685
Total	7	554	8	569	14	5	13	32	11	517	21	549	2	2	0	4	1154
02:00 PM	2	319	1	322	11	1	8	20	19	294	13	326	1	5	1	7	675
02:15 PM	3	385	0	388	9	7	11	27	3	265	16	284	0	4	0	4	703
02:30 PM	8	364	1	373	11	2	8	21	0	283	19	302	4	4	0	8	704
02:45 PM	6	402	2	410	11	1	2	14	0	281	3	284	2	0	0	2	710
Total	19	1470	4	1493	42	11	29	82	22	1123	51	1196	7	13	1	21	2792
03:00 PM	4	308	1	313	10	0	14	24	1	247	13	261	2	2	0	4	602
03:15 PM	8	339	2	349	11	3	9	23	6	297	13	316	17	1	4	22	710
Grand Total	38	2671	15	2724	77	19	65	161	40	2184	98	2322	28	18	5	51	5258
Apprch %	1.4	98.1	0.6		47.8	11.8	40.4		1.7	94.1	4.2		54.9	35.3	9.8		
Total %	0.7	50.8	0.3	51.8	1.5	0.4	1.2	3.1	0.8	41.5	1.9	44.2	0.5	0.3	0.1	1	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	2	319	1	322	**11**	1	8	20	**19**	**294**	13	**326**	1	**5**	1	7	675
02:15 PM	3	385	0	388	9	7	**11**	27	3	265	16	284	0	4	0	4	703
02:30 PM	**8**	364	1	373	11	2	8	21	0	283	**19**	302	**4**	4	0	**8**	704
02:45 PM	6	**402**	**2**	**410**	11	1	2	14	0	281	3	284	2	0	0	2	**710**
Total Volume	19	1470	4	1493	42	11	29	82	22	1123	51	1196	7	13	1	21	2792
% App. Total	1.3	98.5	0.3		51.2	13.4	35.4		1.8	93.9	4.3		33.3	61.9	4.8		
PHF	.594	.914	.500	.910	.955	.393	.659	.759	.289	.955	.671	.917	.438	.650	.250	.656	.983

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SAT
Site Code : 00724612
Start Date : 5/26/2007
Page No : 2



Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:15 PM				01:45 PM				02:30 PM			
+0 mins.	2	319	1	322	9	7	11	27	10	310	10	330	4	4	0	8
+15 mins.	3	385	0	388	11	2	8	21	19	294	13	326	2	0	0	2
+30 mins.	8	364	1	373	11	1	2	14	3	265	16	284	2	2	0	4
+45 mins.	6	402	2	410	10	0	14	24	0	283	19	302	17	1	4	22
Total Volume	19	1470	4	1493	41	10	35	86	32	1152	58	1242	25	7	4	36
% App. Total	1.3	98.5	0.3		47.7	11.6	40.7		2.6	92.8	4.7		69.4	19.4	11.1	
PHF	.594	.914	.500	.910	.932	.357	.625	.796	.421	.929	.763	.941	.368	.438	.250	.409

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SUN
Site Code : 00724611
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

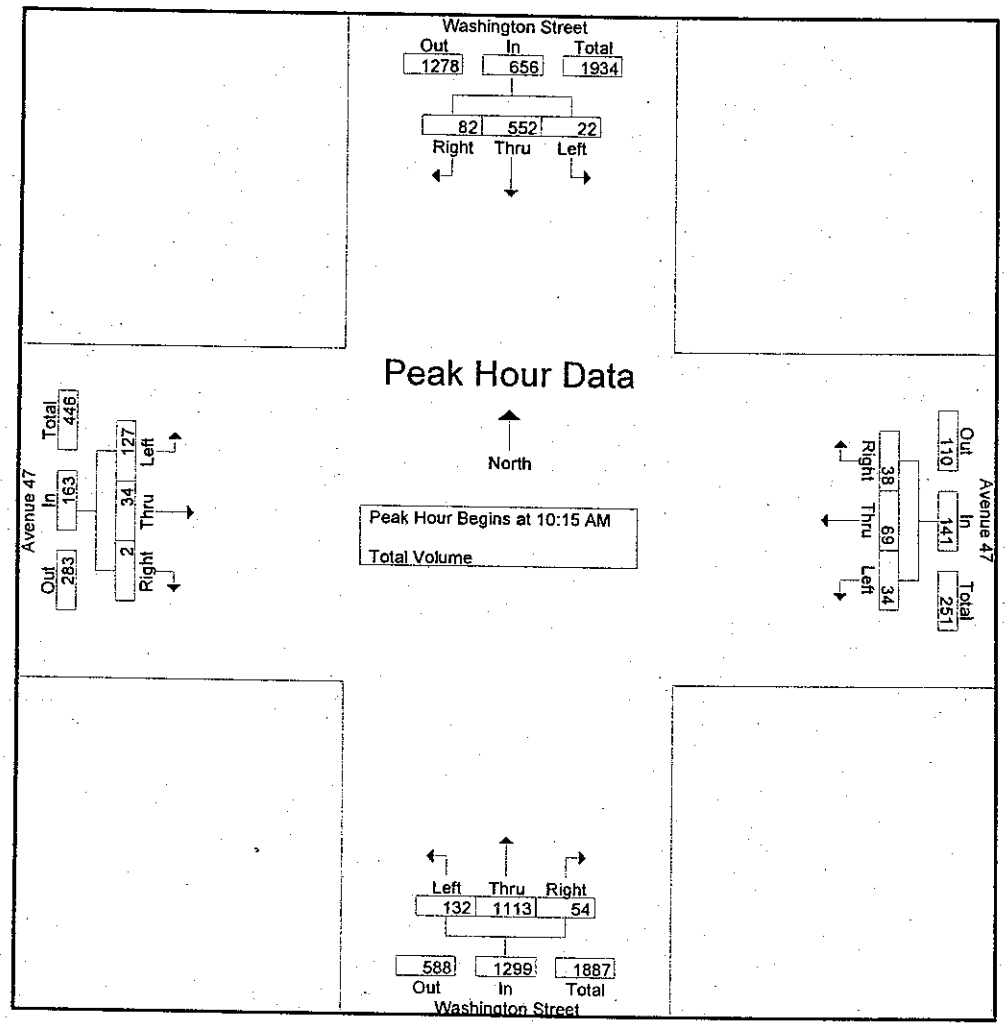
	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
08:30 AM	3	94	18	115	4	8	2	14	8	207	2	217	54	17	1	72	418
08:45 AM	3	69	42	114	2	8	7	17	32	184	7	223	5	3	1	9	363
Total	6	163	60	229	6	16	9	31	40	391	9	440	59	20	2	81	781
09:00 AM	6	100	61	167	0	27	8	35	56	214	4	274	6	4	0	10	486
09:15 AM	2	107	15	124	2	17	7	26	23	231	10	264	2	2	0	4	418
09:30 AM	1	110	4	115	2	3	0	5	2	208	6	216	1	0	0	1	337
09:45 AM	1	105	1	107	7	1	6	14	4	246	6	256	3	2	0	5	382
Total	10	422	81	513	11	48	21	80	85	899	26	1010	12	8	0	20	1623
10:00 AM	9	132	1	142	4	5	13	22	13	234	11	258	7	8	1	16	438
10:15 AM	6	94	4	104	10	3	4	17	3	264	13	280	74	24	2	100	501
10:30 AM	9	171	14	194	7	9	11	27	15	297	18	330	33	6	0	39	590
10:45 AM	6	143	40	189	10	43	9	62	63	319	14	396	12	1	0	13	660
Total	30	540	59	629	31	60	37	128	94	1114	56	1264	126	39	3	168	2189
11:00 AM	1	144	24	169	7	14	14	35	51	233	9	293	8	3	0	11	508
11:15 AM	11	139	5	155	8	4	19	31	14	230	13	257	4	0	0	4	447
11:30 AM	5	189	5	199	9	2	16	27	2	259	15	276	3	1	0	4	506
11:45 AM	6	180	5	191	7	7	11	25	6	264	20	290	5	1	0	6	512
Total	23	652	39	714	31	27	60	118	73	986	57	1116	20	5	0	25	1973
12:00 PM	6	176	3	185	7	3	11	21	14	268	18	300	19	9	1	29	535
12:15 PM	8	219	5	232	11	8	16	35	20	296	19	335	57	10	1	68	670
Grand Total	83	2172	247	2502	97	162	154	413	326	3954	185	4465	293	91	7	391	7771
Apprch %	3.3	86.8	9.9		23.5	39.2	37.3		7.3	88.6	4.1		74.9	23.3	1.8		
Total %	1.1	28	3.2	32.2	1.2	2.1	2	5.3	4.2	50.9	2.4	57.5	3.8	1.2	0.1	5	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Avenue 47 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 10:15 AM																	
10:15 AM	6	94	4	104	**10**	3	4	17	3	264	13	280	**74**	**24**	**2**	**100**	501
10:30 AM	**9**	**171**	14	**194**	7	9	11	27	15	297	**18**	330	33	6	0	39	590
10:45 AM	6	143	**40**	189	10	**43**	9	**62**	**63**	**319**	14	**396**	12	1	0	13	**660**
11:00 AM	1	144	24	169	7	14	**14**	35	51	233	9	293	8	3	0	11	508
Total Volume	22	552	82	656	34	69	38	141	132	1113	54	1299	127	34	2	163	2259
% App. Total	3.4	84.1	12.5		24.1	48.9	27		10.2	85.7	4.2		77.9	20.9	1.2		
PHF	.611	.807	.513	.845	.850	.401	.679	.569	.524	.872	.750	.820	.429	.354	.250	.408	.856

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47
Weather: Sunny

File Name : LQWA47SUN
Site Code : 00724611
Start Date : 6/3/2007
Page No : 2



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:30 AM				10:30 AM				10:15 AM				10:00 AM			
+0 mins.	5	189	5	199	7	9	11	27	3	264	13	280	7	8	1	16
+15 mins.	6	180	5	191	**10**	**43**	9	**62**	15	297	**18**	330	**74**	**24**	**2**	**100**
+30 mins.	6	176	3	185	7	14	14	35	**63**	**319**	14	**396**	33	6	0	39
+45 mins.	**8**	**219**	5	**232**	8	4	**19**	31	51	233	9	293	12	1	0	13
Total Volume	25	764	18	807	32	70	53	155	132	1113	54	1299	126	39	3	168
% App. Total	3.1	94.7	2.2		20.6	45.2	34.2		10.2	85.7	4.2		75	23.2	1.8	
PHF	.781	.872	.900	.870	.800	.407	.697	.625	.524	.872	.750	.820	.426	.406	.375	.420

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: North Church Driveway
Weather: Sunny

File Name : LQWADWNSAT
Site Code : 00724623
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

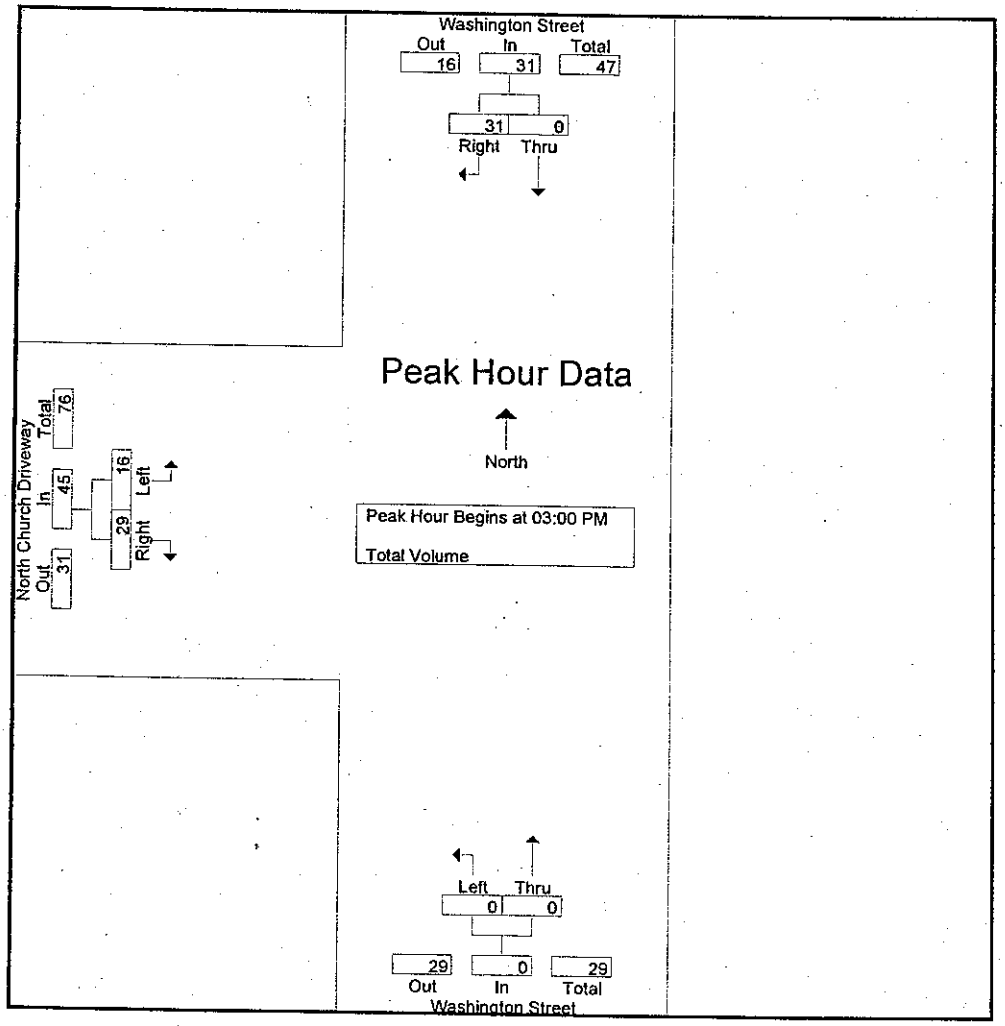
	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
01:45 PM	0	6	6	0	0	0	1	0	1	7
Total	0	6	6	0	0	0	1	0	1	7
02:00 PM	0	19	19	1	0	1	1	0	1	21
02:15 PM	0	9	9	0	0	0	0	1	1	10
02:30 PM	0	4	4	0	0	0	0	0	0	4
02:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	32	32	1	0	1	2	1	3	36
03:00 PM	0	6	6	0	0	0	0	0	0	6
03:15 PM	0	2	2	0	0	0	3	12	15	17
03:30 PM	0	12	12	0	0	0	10	17	27	39
03:45 PM	0	11	11	0	0	0	3	0	3	14
Total	0	31	31	0	0	0	16	29	45	76
Grand Total	0	69	69	1	0	1	19	30	49	119
Apprch %	0	100		100	0		38.8	61.2		
Total %	0	58	58	0.8	0	0.8	16	25.2	41.2	

	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 01:45 PM to 03:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	0	6	6	0	0	0	0	0	0	6
03:15 PM	0	2	2	0	0	0	3	12	15	17
03:30 PM	0	**12**	**12**	0	0	0	**10**	**17**	**27**	**39**
03:45 PM	0	11	11	0	0	0	3	0	3	14
Total Volume	0	31	31	0	0	0	16	29	45	76
% App. Total	0	100		0	0		35.6	64.4		
PHF	.000	.646	.646	.000	.000	.000	.400	.426	.417	.487

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: North Church Driveway
Weather: Sunny

File Name : LQWADWNSAT
Site Code : 00724623
Start Date : 5/26/2007
Page No : 2



Peak Hour Analysis From 01:45 PM to 03:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	01:45 PM			01:45 PM			03:00 PM		
+0 mins.	0	6	6	0	0	0	0	0	0
+15 mins.	0	19	19	1	0	1	3	12	15
+30 mins.	0	9	9	0	0	0	10	17	27
+45 mins.	0	4	4	0	0	0	3	0	3
Total Volume	0	38	38	1	0	1	16	29	45
% App. Total	0	100		100	0		35.6	64.4	
PHF	.000	.500	.500	.250	.000	.250	.400	.426	.417

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: South Church Driveway
Weather: Sunny

File Name : LQWADWSSAT
Site Code : 00724623
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
01:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
Peak Hour Analysis From 01:45 PM to 03:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:45 PM										
01:45 PM	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: South Church Driveway
Weather: Sunny

File Name : LQWADWSSAT
Site Code : 00724623
Start Date : 5/26/2007
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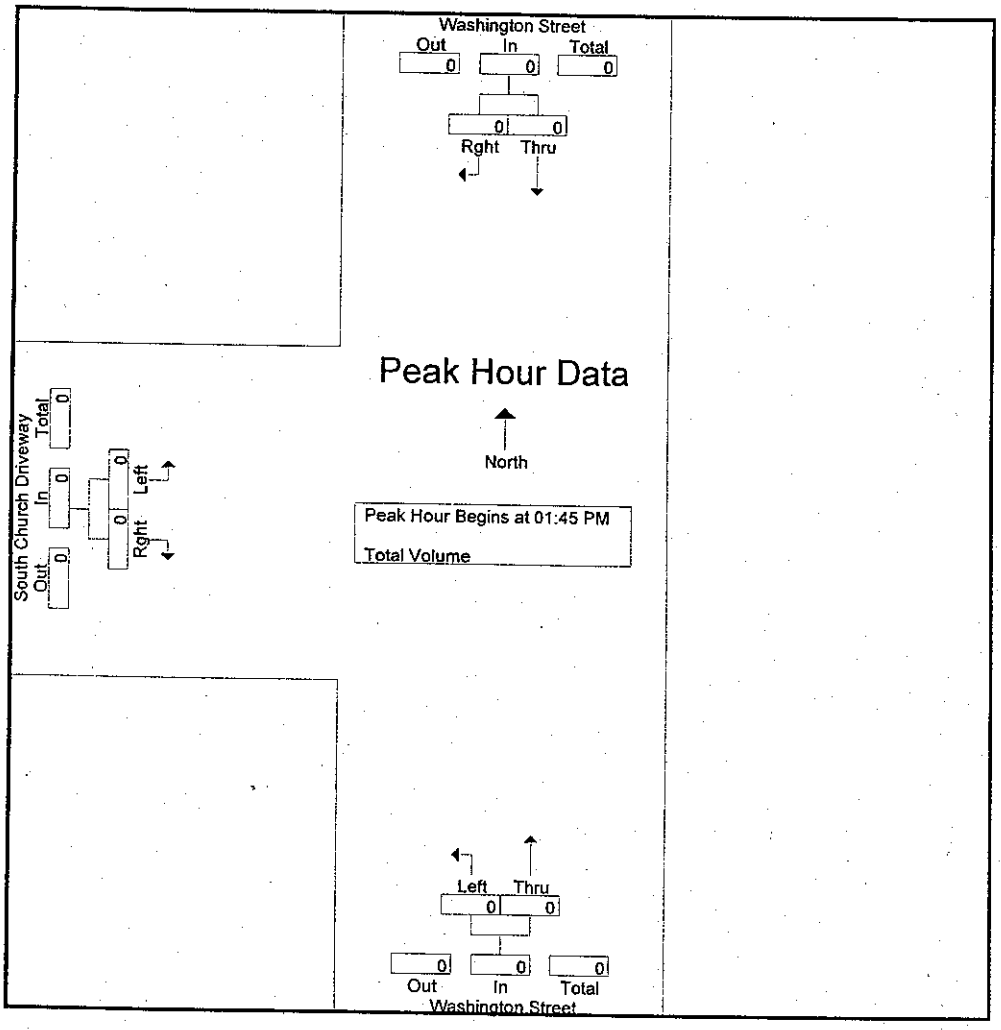

Peak Hour Analysis From 01:45 PM to 03:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	01:45 PM			01:45 PM			01:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: North Church Driveway
Weather: Sunny

File Name : LQWADWNSUN
Site Code : 00724623
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
08:30 AM	14	28	42	0	0	0	64	37	101	143
08:45 AM	2	68	70	1	0	1	9	5	14	85
Total	16	96	112	1	0	1	73	42	115	228
09:00 AM	28	100	128	0	0	0	5	4	9	137
09:15 AM	15	36	51	0	0	0	1	3	4	55
09:30 AM	2	7	9	0	0	0	1	1	2	11
09:45 AM	0	2	2	0	0	0	0	0	0	2
Total	45	145	190	0	0	0	7	8	15	205
10:00 AM	1	10	11	0	0	0	17	9	26	37
10:15 AM	13	7	20	0	0	0	81	74	155	175
10:30 AM	2	33	35	0	0	0	25	9	34	69
10:45 AM	5	122	127	0	0	0	9	7	16	143
Total	21	172	193	0	0	0	132	99	231	424
11:00 AM	7	82	89	0	0	0	8	1	9	98
11:15 AM	3	21	24	0	0	0	4	2	6	30
11:30 AM	2	7	9	0	0	0	3	2	5	14
11:45 AM	1	11	12	0	0	0	2	2	4	16
Total	13	121	134	0	0	0	17	7	24	158
12:00 PM	5	15	20	0	0	0	21	5	26	46
12:15 PM	16	23	39	0	0	0	67	57	124	163
Grand Total	116	572	688	1	0	1	317	218	535	1224
Apprch %	16.9	83.1		100	0		59.3	40.7		
Total %	9.5	46.7	56.2	0.1	0	0.1	25.9	17.8	43.7	

	Washington Street Southbound			Washington Street Northbound			North Church Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 10:15 AM										
10:15 AM	**13**	7	20	0	0	0	**81**	**74**	**155**	**175**
10:30 AM	2	33	35	0	0	0	25	9	34	69
10:45 AM	5	**122**	**127**	0	0	0	9	7	16	143
11:00 AM	7	82	89	0	0	0	8	1	9	98
Total Volume	27	244	271	0	0	0	123	91	214	485
% App. Total	10	90		0	0		57.5	42.5		
PHF	.519	.500	.533	.000	.000	.000	.380	.307	.345	.693

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: North Church Driveway
Weather: Sunny

File Name : LQWADWNSUN
Site Code : 00724623
Start Date : 6/3/2007
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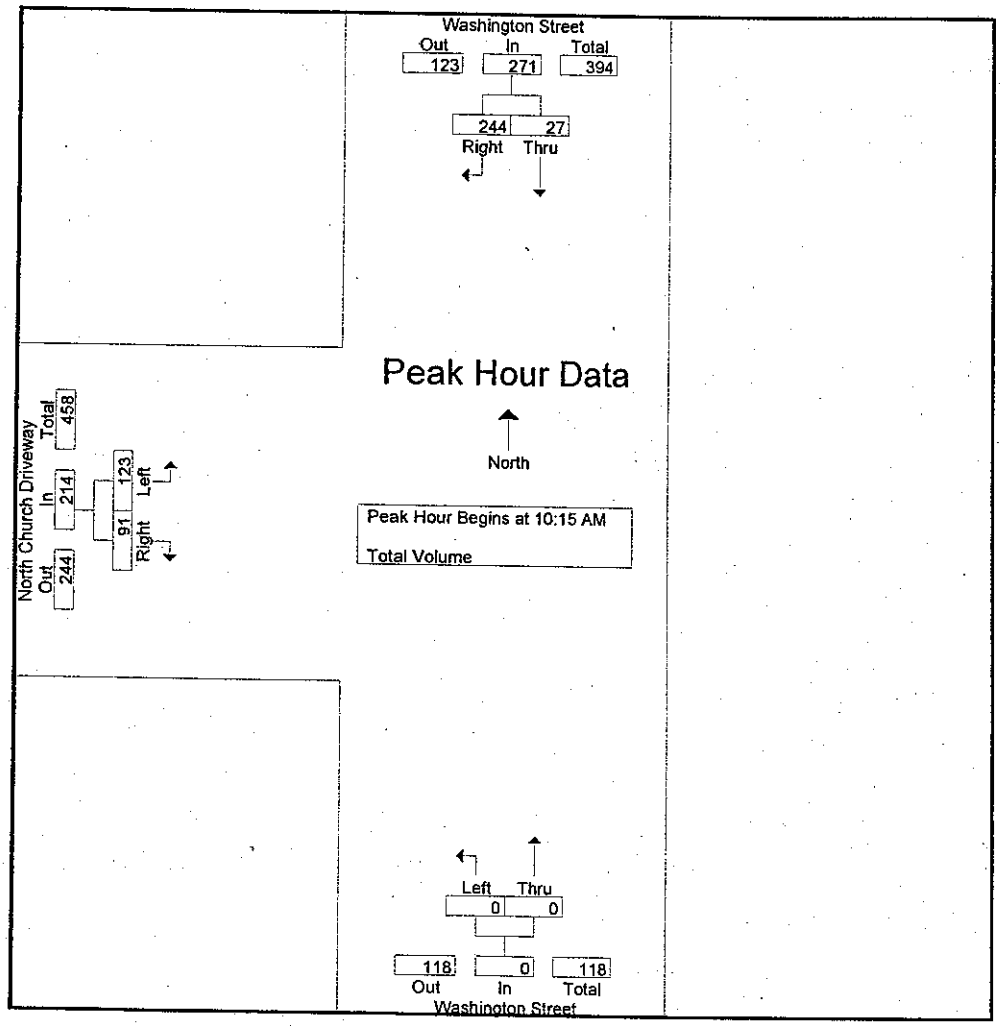


Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:30 AM			08:30 AM			10:00 AM		
+0 mins.	14	28	42	0	0	0	17	9	26
+15 mins.	2	68	70	**1**	0	**1**	**81**	**74**	**155**
+30 mins.	**28**	**100**	**128**	0	0	0	25	9	34
+45 mins.	15	36	51	0	0	0	9	7	16
Total Volume	59	232	291	1	0	1	132	99	231
% App. Total	20.3	79.7		100	0		57.1	42.9	
PHF	.527	.580	.568	.250	.000	.250	.407	.334	.373

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: South Church Driveway
Weather: Sunny

File Name : LQWADWSSUN
Site Code : 00724623
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

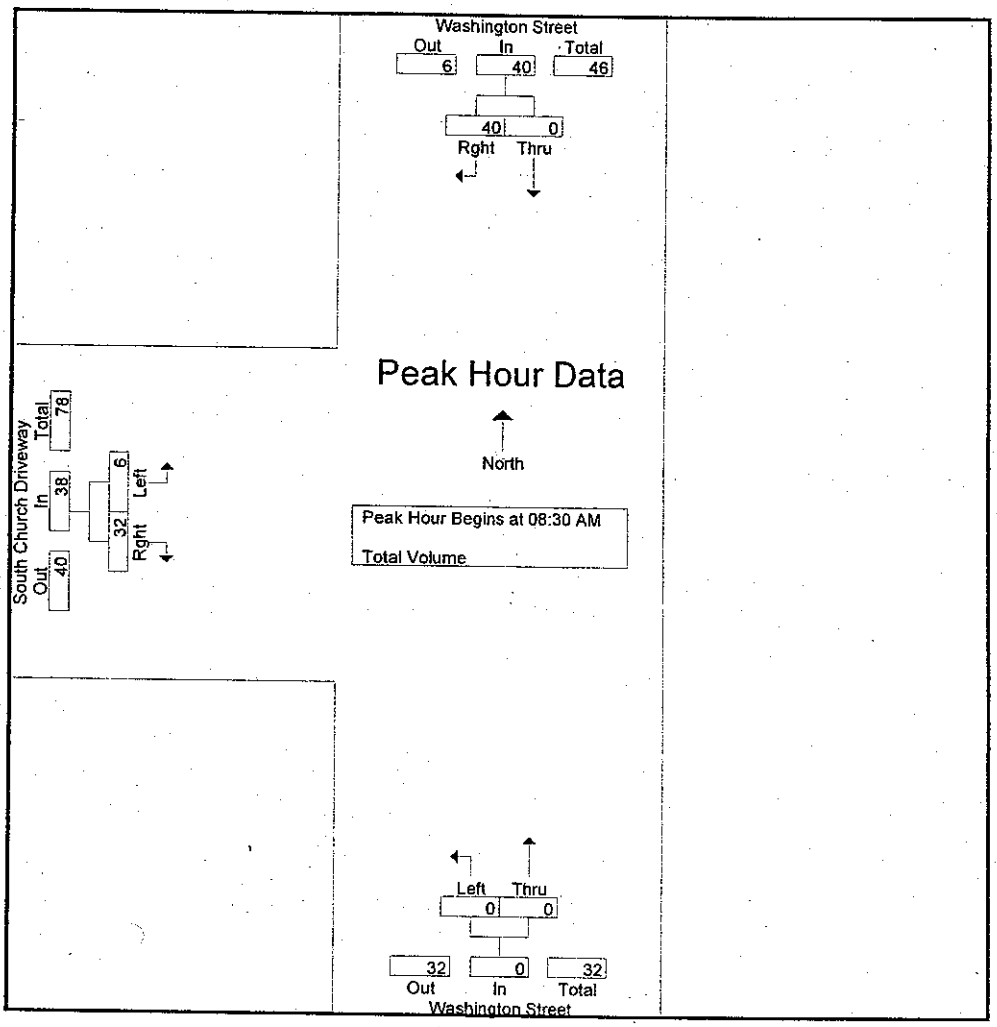
	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
08:30 AM	0	0	0	0	0	0	5	32	37	37
08:45 AM	0	2	2	0	0	0	1	0	1	3
Total	0	2	2	0	0	0	6	32	38	40
09:00 AM	0	25	25	0	0	0	0	0	0	25
09:15 AM	0	13	13	0	0	0	0	0	0	13
09:30 AM	0	1	1	0	0	0	0	0	0	1
09:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	39	39	0	0	0	0	0	0	39
10:00 AM	0	1	1	0	0	0	2	2	4	5
10:15 AM	0	0	0	0	0	0	15	41	56	56
10:30 AM	0	0	0	0	0	0	1	4	5	5
10:45 AM	0	3	3	0	0	0	0	1	1	4
Total	0	4	4	0	0	0	18	48	66	70
11:00 AM	0	8	8	0	0	0	0	0	0	8
11:15 AM	0	5	5	0	0	0	0	0	0	5
11:30 AM	0	1	1	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	14	14	0	0	0	0	0	0	14
12:00 PM	0	0	0	0	0	0	4	1	5	5
12:15 PM	0	2	2	0	0	0	8	39	47	49
Grand Total	0	61	61	0	0	0	36	120	156	217
Apprch %	0	100		0	0		23.1	76.9		
Total %	0	28.1	28.1	0	0	0	16.6	55.3	71.9	

	Washington Street Southbound			Washington Street Northbound			South Church Driveway Eastbound			
Start Time	Thru	Rght	App. Total	Left	Thru	App. Total	Left	Rght	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:30 AM										
08:30 AM	0	0	0	0	0	0	5	32	37	37
08:45 AM	0	2	2	0	0	0	1	0	1	3
09:00 AM	0	25	25	0	0	0	0	0	0	25
09:15 AM	0	13	13	0	0	0	0	0	0	13
Total Volume	0	40	40	0	0	0	6	32	38	78
% App. Total	0	100		0	0		15.8	84.2		
PHF	.000	.400	.400	.000	.000	.000	.300	.250	.257	.527

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: South Church Driveway
Weather: Sunny

File Name : LQWADWSSUN
Site Code : 00724623
Start Date : 6/3/2007
Page No : 2



Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:45 AM			08:30 AM			09:30 AM		
+0 mins.	0	2	2	0	0	0	0	0	0
+15 mins.	0	25	25	0	0	0	0	0	0
+30 mins.	0	13	13	0	0	0	2	2	4
+45 mins.	0	1	1	0	0	0	15	41	56
Total Volume	0	41	41	0	0	0	17	43	60
% App. Total	0	100		0	0		28.3	71.7	
PHF	.000	.410	.410	.000	.000	.000	.283	.262	.268

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47 / Highland Palms Drive
Weather: Sunny

File Name : LQWA47HSAT
Site Code : 00724687
Start Date : 5/26/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:30 PM	1	0	0	1	5	2	0	7	0	1	0	1	3	0	1	4	13
01:45 PM	1	1	0	2	16	1	0	17	0	0	1	1	0	2	0	2	22
Total	2	1	0	3	21	3	0	24	0	1	1	2	3	2	1	6	35
02:00 PM	0	0	0	0	17	3	1	21	0	0	2	2	0	4	0	4	27
02:15 PM	1	0	0	1	6	2	0	8	0	0	1	1	0	5	0	5	15
02:30 PM	2	0	0	2	1	1	1	3	0	0	0	0	0	7	0	7	12
02:45 PM	1	0	1	2	2	1	0	3	0	0	4	4	0	2	1	3	12
Total	4	0	1	5	26	7	2	35	0	0	7	7	0	18	1	19	66
03:00 PM	1	0	0	1	1	1	0	2	0	0	12	12	0	2	0	2	17
03:15 PM	1	0	0	1	8	2	1	11	1	0	12	13	0	4	0	4	29
Grand Total	8	1	1	10	56	13	3	72	1	1	32	34	3	26	2	31	147
Apprch %	80	10	10		77.8	18.1	4.2		2.9	2.9	94.1		9.7	83.9	6.5		
Total %	5.4	0.7	0.7	6.8	38.1	8.8	2	49	0.7	0.7	21.8	23.1	2	17.7	1.4	21.1	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:30 PM																	
01:30 PM	1	0	0	1	5	2	0	7	0	1	0	1	3	0	1	4	13
01:45 PM	1	1	0	2	16	1	0	17	0	0	1	1	0	2	0	2	22
02:00 PM	0	0	0	0	17	3	1	21	0	0	2	2	0	4	0	4	27
02:15 PM	1	0	0	1	6	2	0	8	0	0	1	1	0	5	0	5	15
Total Volume	3	1	0	4	44	8	1	53	0	1	4	5	3	11	1	15	77
% App. Total	75	25	0		83	15.1	1.9		0	20	80		20	73.3	6.7		
PHF	.750	.250	.000	.500	.647	.667	.250	.631	.000	.250	.500	.625	.250	.550	.250	.750	.713

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City of La Quinta
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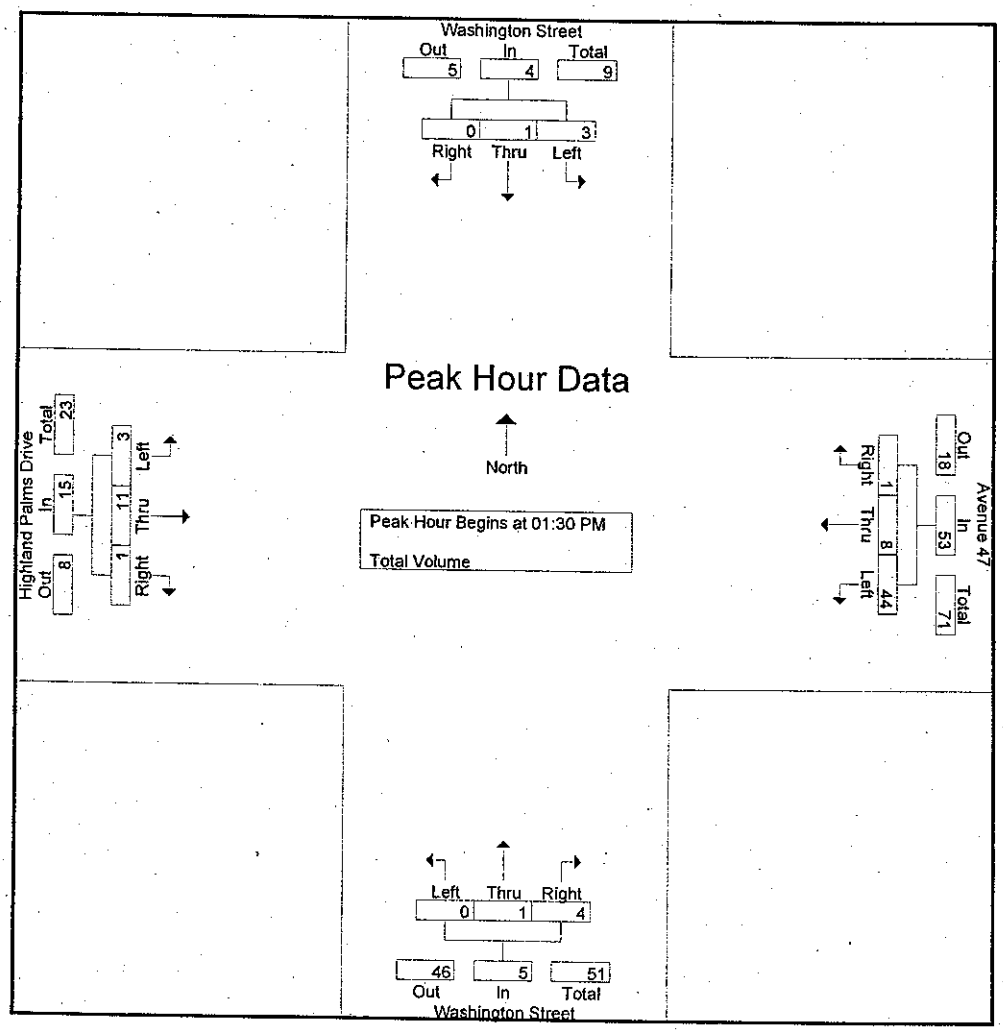
File Name : LQWA47HSAT
Site Code : 00724687
Start Date : 5/26/2007
Page No : 2



Peak Hour Analysis From 01:30 PM to 03:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:15 PM				01:30 PM				02:30 PM				02:00 PM			
+0 mins.	1	0	0	1	5	2	0	7	0	0	0	0	0	4	0	4
+15 mins.	2	0	0	2	16	1	0	17	0	0	4	4	0	5	0	5
+30 mins.	1	0	1	2	17	3	1	21	0	0	12	12	0	7	0	7
+45 mins.	1	0	0	1	6	2	0	8	1	0	12	13	0	2	1	3
Total Volume	5	0	1	6	44	8	1	53	1	0	28	29	0	18	1	19
% App. Total	83.3	0	16.7		83	15.1	1.9		3.4	0	96.6		0	94.7	5.3	
PHF	.625	.000	.250	.750	.647	.667	.250	.631	.250	.000	.583	.558	.000	.643	.250	.679

Counts Unlimited Inc.
25424 Jaclyn Avenue
Moreno Valley, CA 92557
951-247-6716

City of La Quinta
N/S: Washington Street
E/W: Avenue 47 / Highland Palms Drive
Weather: Sunny

File Name : LQWA47HSUN
Site Code : 00724612
Start Date : 6/3/2007
Page No : 1

Groups Printed- Total Volume

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
08:30 AM	2	0	0	2	28	2	0	30	1	0	66	67	0	3	1	4	103
08:45 AM	0	1	0	1	89	2	0	91	0	0	10	10	0	0	1	1	103
Total	2	1	0	3	117	4	0	121	1	0	76	77	0	3	2	5	206
09:00 AM	0	1	0	1	141	3	1	145	0	0	6	6	0	0	0	0	152
09:15 AM	1	0	0	1	46	3	1	50	0	0	2	2	0	3	0	3	56
09:30 AM	0	1	0	1	8	1	0	9	0	0	2	2	0	0	0	0	12
09:45 AM	0	0	0	0	2	0	1	3	0	0	1	1	0	0	0	0	4
Total	1	2	0	3	197	7	3	207	0	0	11	11	0	3	0	3	224
10:00 AM	1	0	0	1	10	2	2	14	0	0	22	22	0	2	0	2	39
10:15 AM	2	0	0	2	11	2	0	13	0	1	93	94	0	6	0	6	115
10:30 AM	0	0	0	0	46	1	0	47	0	0	41	41	0	4	0	4	92
10:45 AM	2	0	0	2	147	3	0	150	2	0	7	9	0	1	1	2	163
Total	5	0	0	5	214	8	2	224	2	1	163	166	0	13	1	14	409
11:00 AM	0	0	0	0	87	1	2	90	0	0	9	9	0	1	0	1	100
11:15 AM	0	0	0	0	25	0	0	25	0	0	4	4	0	0	0	0	29
11:30 AM	2	0	0	2	6	0	0	6	0	0	4	4	0	1	0	1	13
11:45 AM	1	0	1	2	13	1	2	16	0	0	2	2	0	0	0	0	20
Total	3	0	1	4	131	2	4	137	0	0	19	19	0	2	0	2	162
12:00 PM	1	0	0	1	19	0	0	19	0	0	34	34	0	4	0	4	58
12:15 PM	2	0	0	2	32	2	1	35	0	0	93	93	1	6	0	7	137
Grand Total	14	3	1	18	710	23	10	743	3	1	396	400	1	31	3	35	1196
Apprch %	77.8	16.7	5.6		95.6	3.1	1.3		0.8	0.2	99		2.9	88.6	8.6		
Total %	1.2	0.3	0.1	1.5	59.4	1.9	0.8	62.1	0.3	0.1	33.1	33.4	0.1	2.6	0.3	2.9	

	Washington Street Southbound				Avenue 47 Westbound				Washington Street Northbound				Highland Palms Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 10:15 AM																	
10:15 AM	2	0	0	2	11	2	0	13	0	1	93	94	0	6	0	6	115
10:30 AM	0	0	0	0	46	1	0	47	0	0	41	41	0	4	0	4	92
10:45 AM	2	0	0	2	147	3	0	150	2	0	7	9	0	1	1	2	163
11:00 AM	0	0	0	0	87	1	2	90	0	0	9	9	0	1	0	1	100
Total Volume	4	0	0	4	291	7	2	300	2	1	150	153	0	12	1	13	470
% App. Total	100	0	0		97	2.3	0.7		1.3	0.7	98		0	92.3	7.7		
PHF	.500	.000	.000	.500	.495	.583	.250	.500	.250	.250	.403	.407	.000	.500	.250	.542	.721

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City of La Quinta
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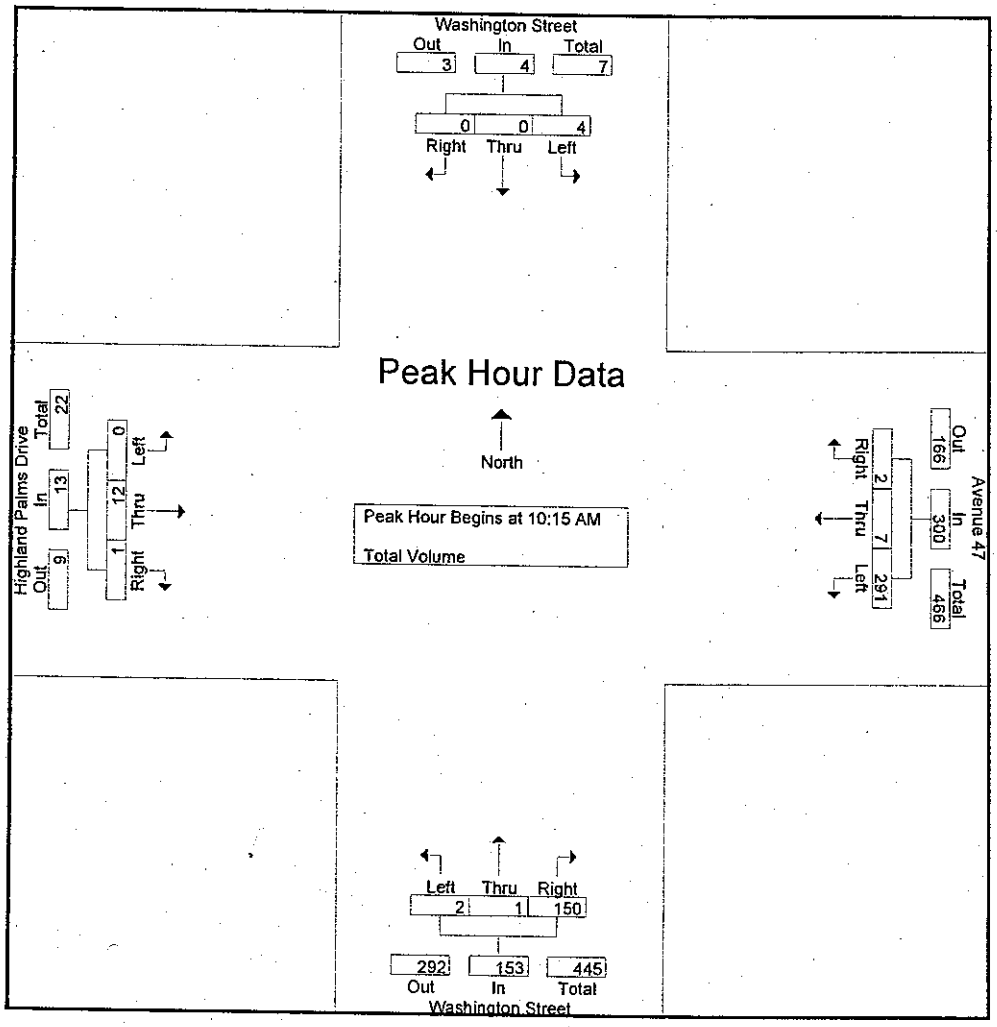
File Name : LQWA47HSUN
Site Code : 00724612
Start Date : 6/3/2007



Peak Hour Analysis From 08:30 AM to 12:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:30 AM				08:30 AM				10:00 AM				10:00 AM			
+0 mins.	2	0	0	2	28	2	0	30	0	0	22	22	0	2	0	2
+15 mins.	1	0	1	2	89	2	0	91	0	1	93	94	0	6	0	6
+30 mins.	1	0	0	1	141	3	1	145	0	0	41	41	0	4	0	4
+45 mins.	2	0	0	2	46	3	1	50	2	0	7	9	0	1	1	2
Total Volume	6	0	1	7	304	10	2	316	2	1	163	166	0	13	1	14
% App. Total	85.7	0	14.3		96.2	3.2	0.6		1.2	0.6	98.2		0	92.9	7.1	
PHF	.750	.000	.250	.875	.539	.833	.500	.545	.250	.250	.438	.441	.000	.542	.250	.583

INTERSECTION CAPACITY UTILIZATION CALCULATION SHEET

Intersection:	Washington Street and north driveway entrance (St. Francis Church)		
Count Date:	Sunday June 3, 2007	**Peak Hour:**	2:30 - 3:30pm
Analyst:	R. Greene	**Agency:**	City of La Quinta

Movement	Volume	Number of Lanes	Capacity	V/C Ratio		Total
NB Left	192	1	1900	0.101	0.101	
NB Thru	1766	3	5700	0.310		
NB Right	0	0	0	0.000		
SB Left	86	1	1900	0.045		0.365
SB Thru	1004	2	3800	0.264	0.264	
SB Right	129	1	1900	0.068		
EB Left	128	1	1900	0.067	0.067	
EB Thru	0	2	3800	0.000		
EB Right	115	1	1900	0.061		0.071
WB Left	0	1	1900	0.000		
WB Thru	12	2	3800	0.003	0.003	
WB Right	0	1	1900	0.000		
Sum of Critical V/C Ratios						0.436
Adjustment for Lost Time						0.100
Intersection Capacity Utilization (ICU)						0.536
Level of Service (LOS) - Refer to table below						A

Notes:			
1. Per lane Capacity	=	1,900	VPH
2. Dual turn lane Capacity	=	3,420	VPH
3. Intersection Type:	4-Way		
	T	X	
	Split N/S		
	Split E/W		

Maximum V/C Ratio
0.6
0.7
0.8
0.9
1.0
n/a

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*R. Greene*
Agency/Co.	*City of La Quinta*
Date Performed	*7/17/2007*
Analysis Time Period	*10:15 - 11:15AM*

Site Information

Intersection	*Washington St./No. Driveway*
Jurisdiction	
Analysis Year	*2007*

Project Description

East/West Street: *North Driveway Entrance*	North/South Street: *Washington Street*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)					*841*	*87*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*163*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*1*
Lanes	*0*	*0*	*0*	*0*	*1*	*1*
Configuration					*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)			*163*			
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*841*	*87*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*1*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*1*	*0*	*0*	*0*
Configuration			*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration								*R*
v (veh/h)								*163*
C (m) (veh/h)								*366*
v/c								*0.45*
95% queue length								*2.22*
Control Delay (s/veh)								*22.5*
LOS								*C*

Approach Delay (s/veh)	--	--		22.5
Approach LOS	--	--		C

MDS CONSULTING

PLANNERS | ENGINEERS | SURVEYORS

TRANSMITTAL

78-900 Avenue 47, Suite 208

La Quinta, CA 92253

VOICE: 760-771-4013

FAX: 760-771-4073

E-MAIL: mdsirvine@mdsconsulting.net

To: City of La Quinta
Public Works

Address: 78495 Calle Tampico
La Quinta, CA 92253

Attention: Ed Wimmer

From: Barrett Bruchhauser

Date: 8/2/07

Job #: 69400

Subject: Tr. No. 35060

cc: trans. only

NO. OF ITEMS:	DESCRIPTION:
2	Preliminary Intersection Configuration Exhibit
1	Church Traffic Signal Plan Prelim. Check

RECEIVED
AUG 0 2 2007
PUBLIC WORKS

THE ABOVE ITEMS ARE SUBMITTED:

- [x] AT YOUR REQUEST
- [ ] FOR YOUR REVIEW
- [ ] FOR YOUR FILES
- [ ] FOR YOUR APPROVAL
- [ ] FOR YOUR USE
- [ ] FOR YOUR INFO

THE ABOVE ITEMS ARE TRANSMITTED:

- [x] HEREWITH
- [x] VIA DELIVERY
- [ ] UNDER SEPARATE COVER

MESSAGE:

Ed,

Here is the proposed preliminary configuration of the intersection of Washington Street and Lake La Quinta Drive in coordination with the future secondary access for Laing Luxury Homes. Prior to final engineering of this area we would like to verify approval of the layout with the City to ensure we are all on the same page. This exhibit is based on previous comments made from Public Works on the Church/Wil Dan Traffic Signal Plan. Please call with any questions or comments.

Thank you. Barrett

OCB Reprographics INVOICE

Irvine (Corporate) 17721 Mitchell North 92614 (949) 660-1150

Irvine Spectrum	(949) 753-4700	San Diego (M.V.)	(619) 297-8300	Palm Desert	(760) 772-9794
Orange	(714) 532-4852	San Diego (S.V.)	(858) 362-0999	Palm Springs	(760) 325-3717
Fullerton	(714) 870-4750	Corona	(951) 280-4430	Murrieta	(951) 445-4480
Riverside	(951) 686-0530	Ontario	(909) 980-3024	San Bernardino	(909) 381-6525

DELIVERY

NUMBER: WO#F562622-2

DATE: 08/02/07

CHARGE TO: DELIVERY TICKET

SHIP TO: CITY OF LA QUINTA
78-495 CALLE TAMPICO
LA QUINTA, CA 92253

ORDERED BY	PHONE	PURCHASE ORDER NO.	WORK ORDER NO.
		DUE: 2PM	F562622-17

JOB NUMBER/JOB DESCRIPTION	ORIGINALS	COPIES	SIZE	TOTAL SQ. FT.	UNIT PRICE	EXTENSION
694-00 TR.35060 PUBLIC WORKS DEPT. ATTN:SUSAN Processed By : AAS						

OCB Reprographics

Wo#:F562622
Rec:City Of La Quinta
From:9800 To: Dispatch

Tracking #SD-0009-A2288687

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SUB TOTAL		SALES TAX		POSTAGE/ SHIPPING		INVOICE TOTAL	

Invoices undisputed for 45 days are final.