



# City of La Quinta

## MEMORANDUM

TO: Tim Jonasson, Director of Public Works

FROM: Nazir Lalani, City Traffic Engineer *NL*

DATE: July 6, 2010

RE: **FOCUSED TRAFFIC IMPACT STUDY FOR PROPOSED WASHINGTON APARTMENTS EXPANSION**

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### Project Location and Description

The Washington Apartments Expansion project is located on the southeast corner of the intersection of Washington and Hidden River Road as shown in Figure 1. The apartment complex comprises some existing apartments. For this traffic impact analysis, it was assumed that 100 new senior apartments would be constructed. The surrounding street system is shown in Figure 2. A traffic signal was installed at Fred Waring Drive and Palm Royale since Figure 2 was prepared.

### Trip Generation

The eight edition of the Institute of Transportation Engineers Trip Generation Manual includes rates for Senior Adult Housing. The average rates in the ITE manual seemed very low to be applicable to La Quinta. Therefore the rates were adjusted based on the standard deviation of the sample rates. The following peak hour rates were used for this analysis:

- AM Peak Hour Average Trip Generation Rate Per Unit: 0.20
- AM Peak Hour Average Trip Generation Rate Per Unit: 0.25

**TABLE 1: PROJECT TRIP GENERATION**

LAND USE	QUANTITY	CODE	AM Peak Hour		PM Peak Hour	
			IN	OUT	IN	OUT
Senior Adult Housing	100	ITE 252	7	13	15	10

Trip Distribution

Based on average daily volume information contained in Figure 3, the trips were distributed 50% to the north and 50% to the south. Figure 4 provides the trip distribution.

Intersection Level of Service Analysis Methodology

The level of service for critical intersections was calculated using the Intersection Capacity Utilization (ICU) method. The levels of service were calculated for the following:

- Existing 2010 Conditions
- Opening Year With Project (2012)

The Year 2010 Ambient peak hour traffic volume data shown in Figure 4-12 were obtained from the La Quinta Retail and Medical Office Complex Traffic Study completed in October 2008. The opening day per hour traffic volume data were calculated by increasing existing peak hour traffic by 2.5% per year. The existing lane configurations are shown in Figure 5. The Fred Waring Drive and Washington Street intersection has been widened to provide two left-turn lanes, three through lanes and a right turn lane on the westbound approach since this Figure was prepared. The intersection of Avenue 42 and Washington Street has also been widened to provide two left turn lanes on the Hovely Lane/Avenue 42 approaches.

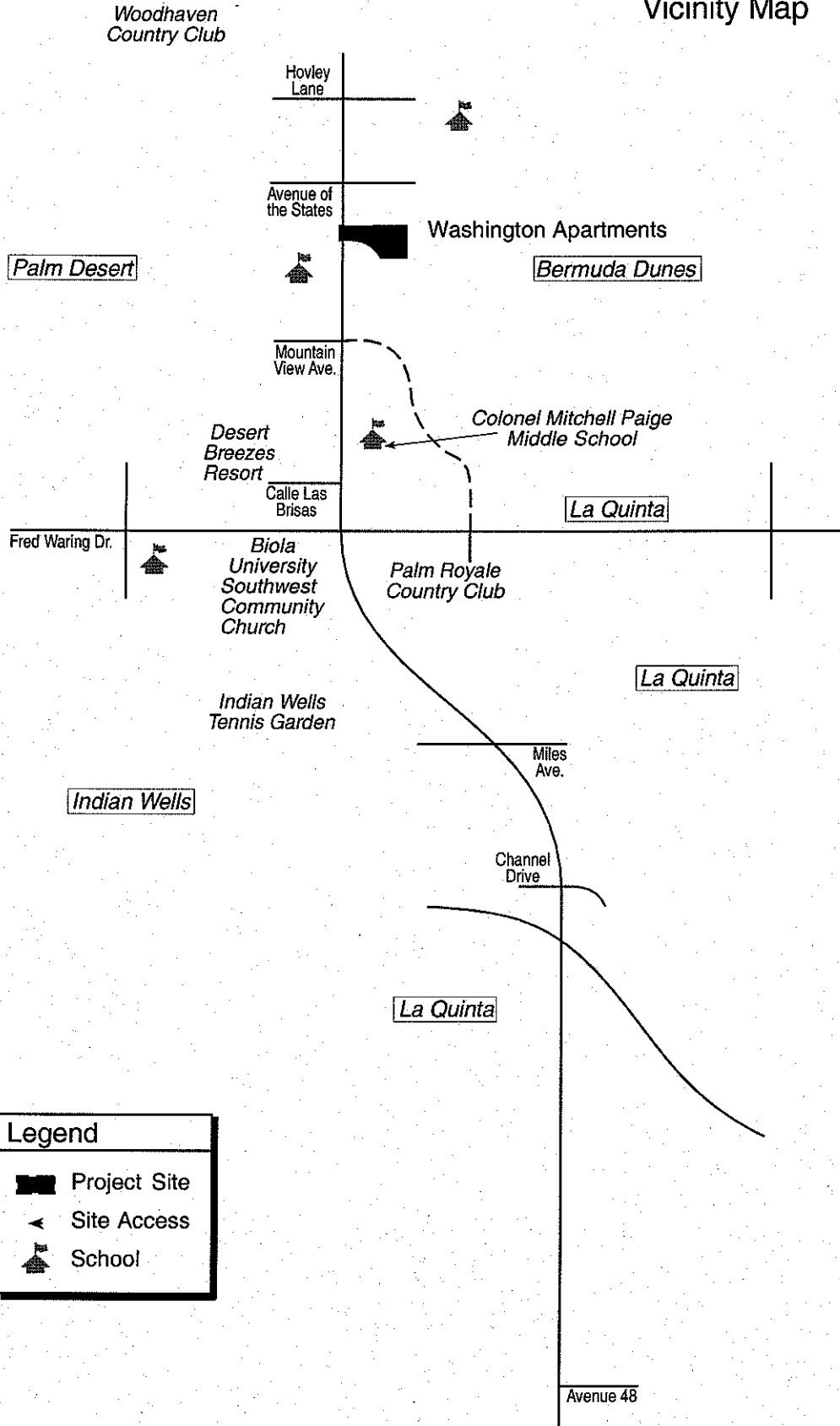
**TABLE 2: INTERSECTION LEVEL OF SERVICE (LOS)**




<b>INTERSECTION</b>	<b>Existing Conditions</b>	<b>Opening Day without Project</b>	<b>Opening Day with Project</b>
<u>Weekday AM Peak Hour</u>			
1. Fred Waring Drive/Washington Street	B	C	C
2. Avenue 42/Washington Street	C	C	C
3. Washington Street/Hwy 111	C	C	C
<u>Weekday AM Peak Hour</u>			
1. Fred Waring Drive/Washington Street	C	C	C
2. Avenue 42/Washington Street	C	C	C
3. Washington Street/Hwy 111	C	C	D

Conclusions

The construction of 100 new senior apartment units will have no impact on critical intersections in the study area.

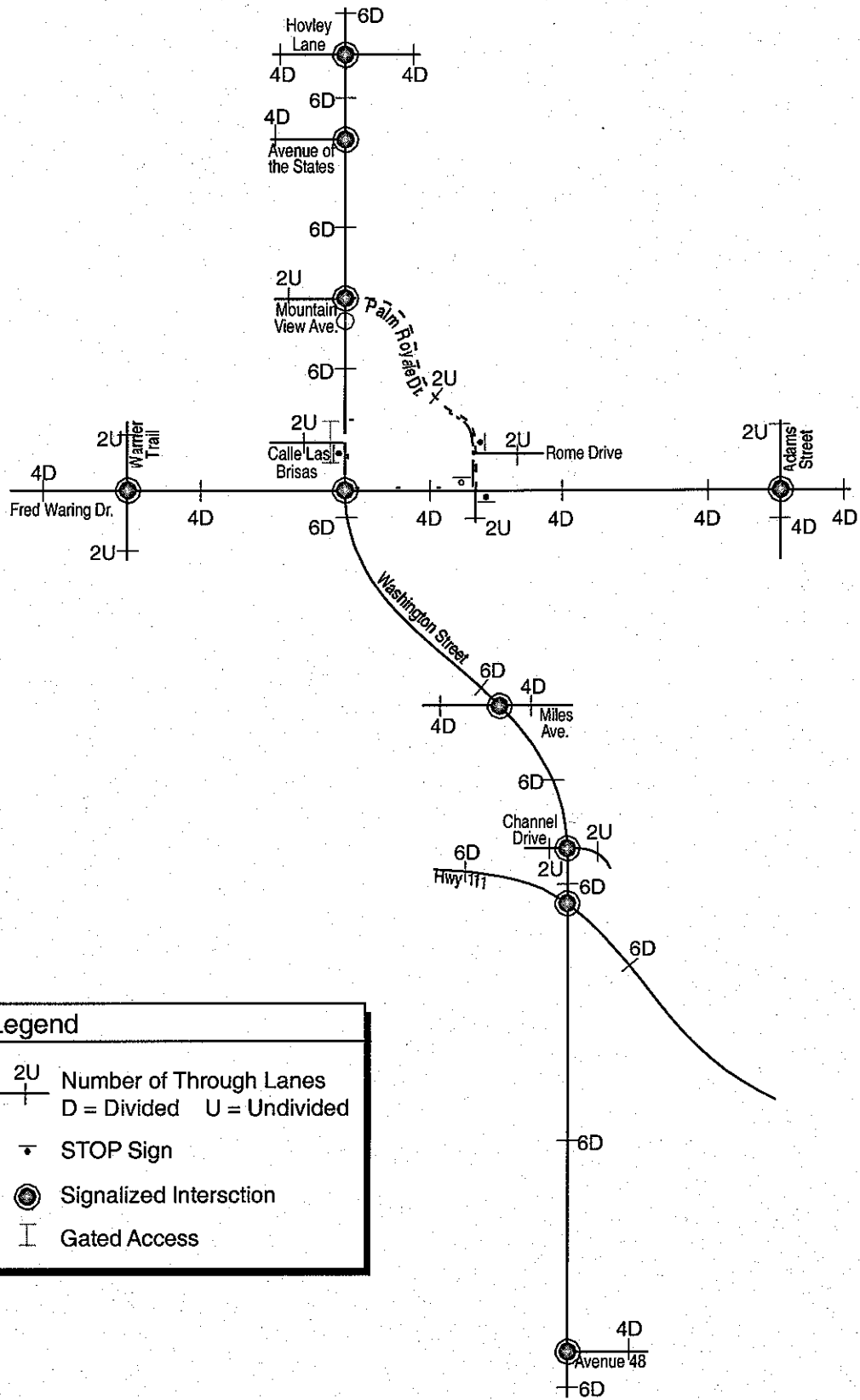
Figure 1  
Vicinity Map



Legend	
	Project Site
	Site Access
	School



## Figure 2 Surrounding Street System



Legend	
2U   +	Number of Through Lanes D = Divided    U = Undivided
▼	STOP Sign
●	Signalized Intersection
	Gated Access



Figure 3  
 Current Daily Traffic Volume  
 (Peak Season)

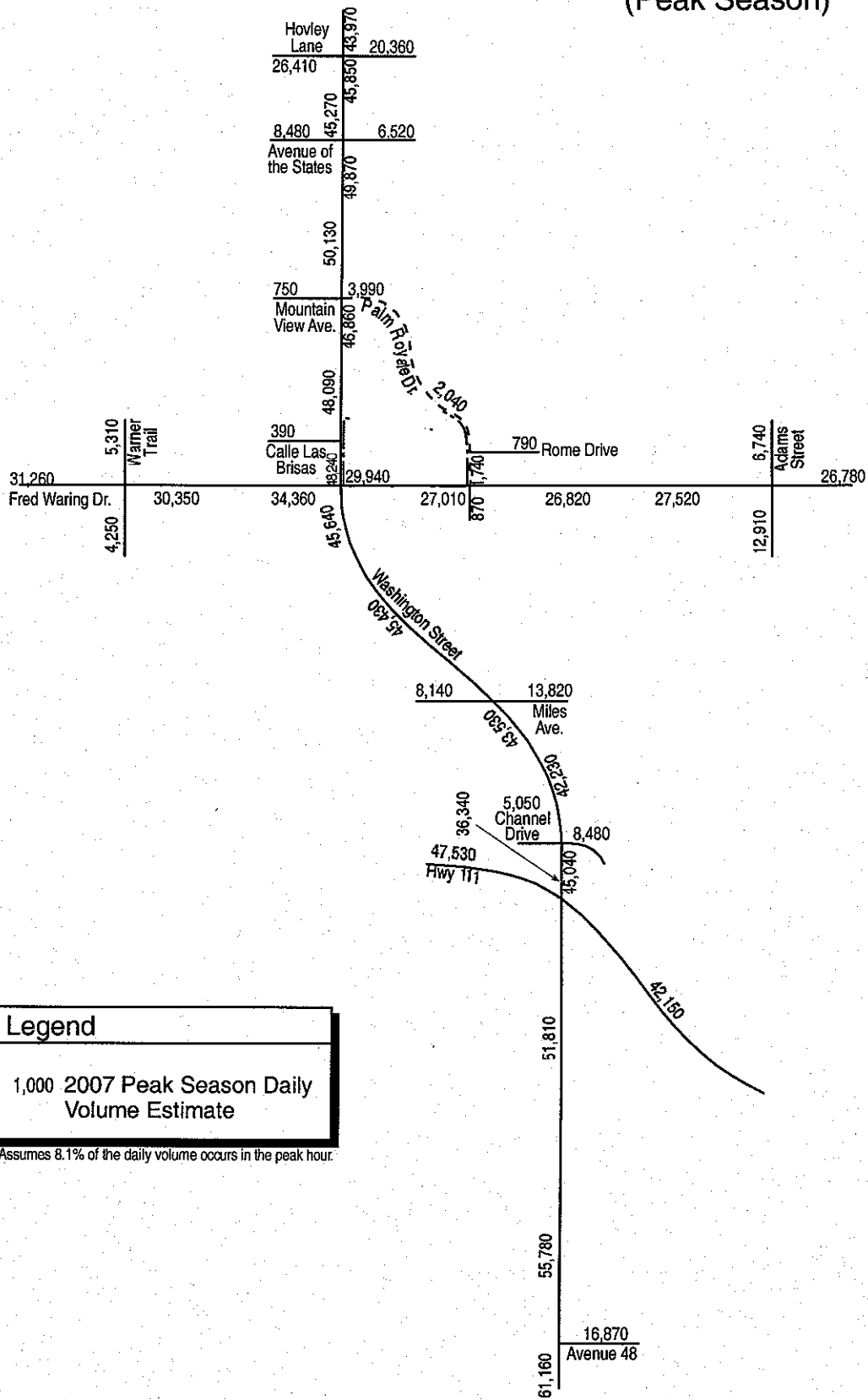
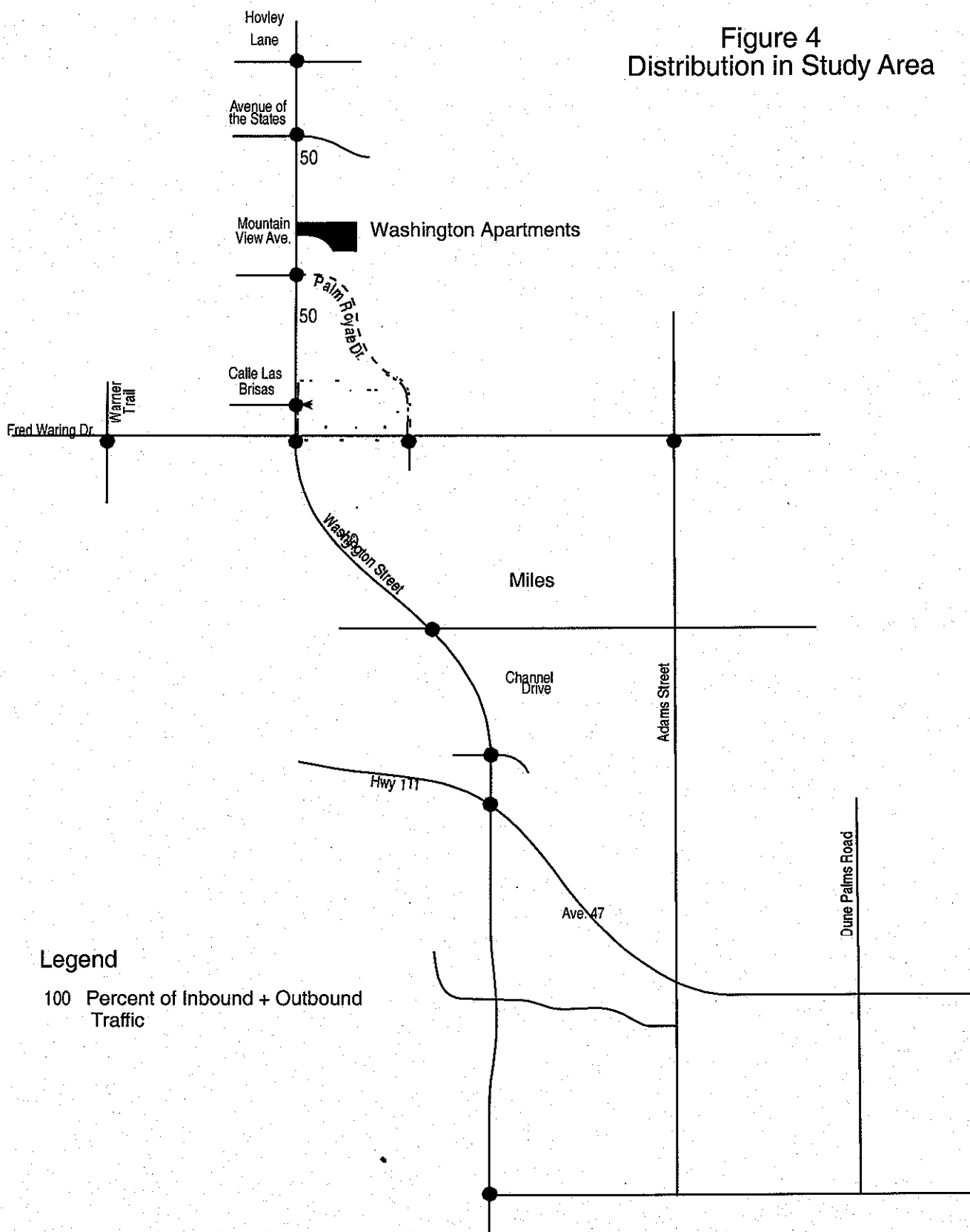


Figure 4  
Distribution in Study Area

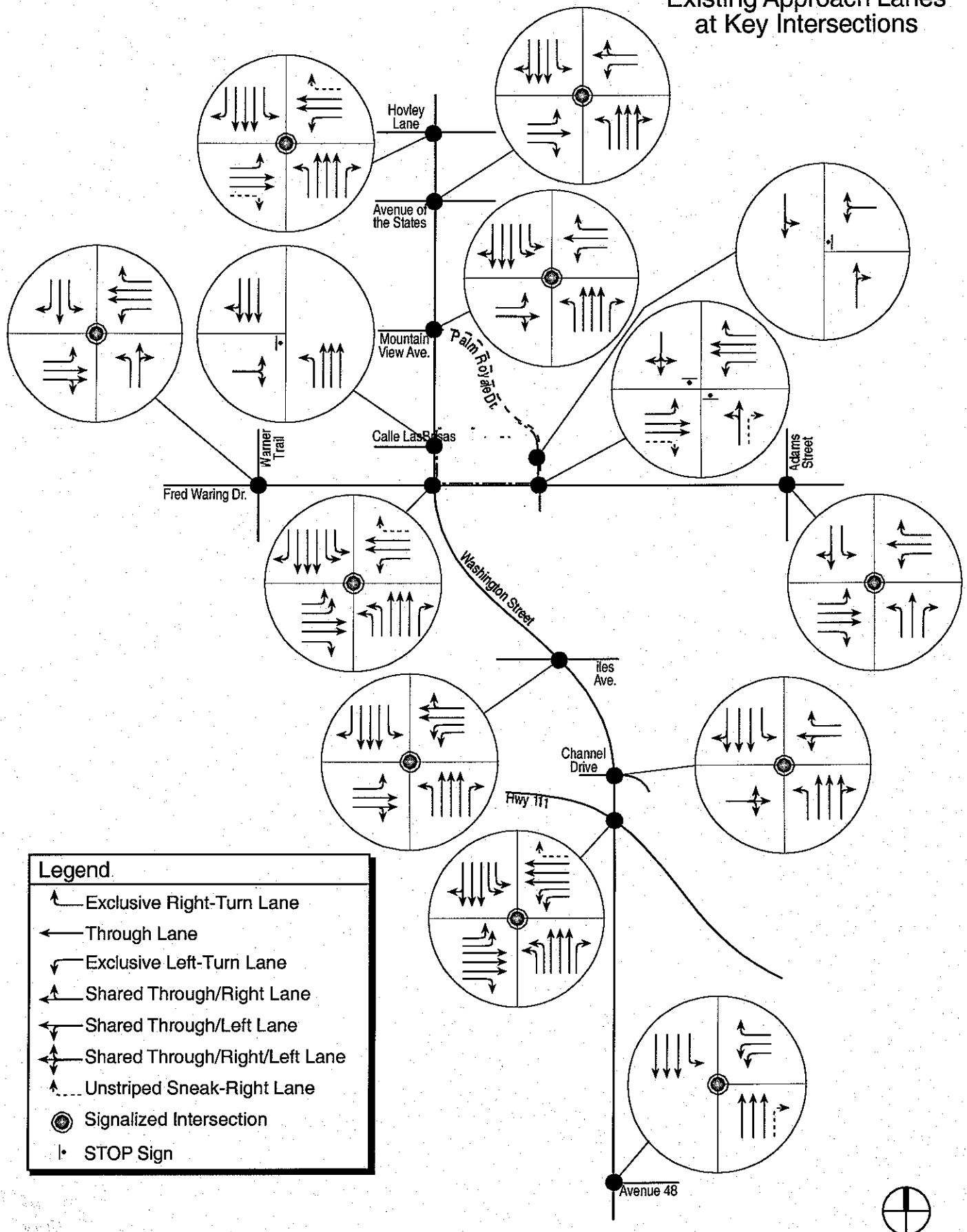


**Legend**

100 Percent of Inbound + Outbound  
Traffic



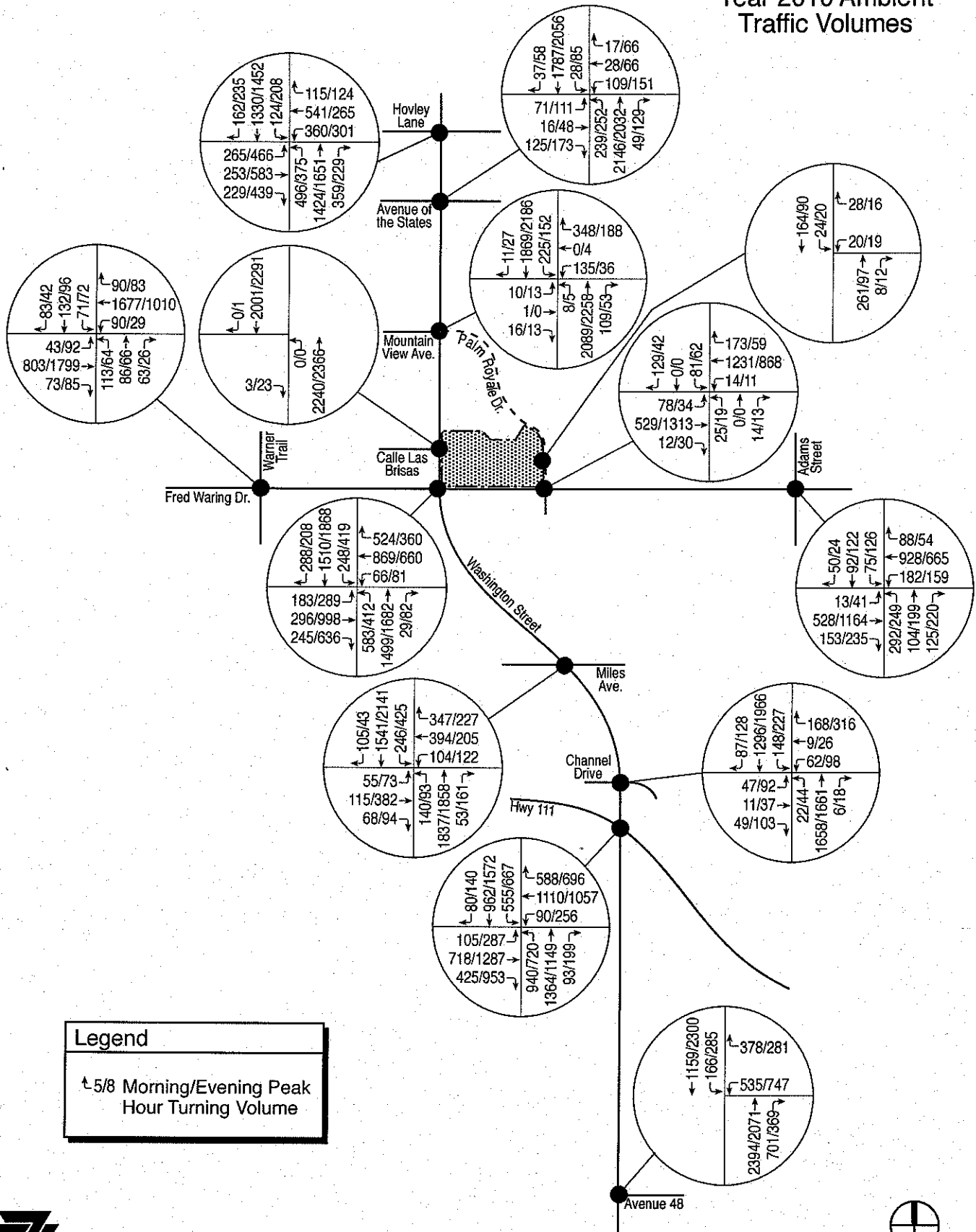
Figure 5  
Existing Approach Lanes  
at Key Intersections



Legend	
	Exclusive Right-Turn Lane
	Through Lane
	Exclusive Left-Turn Lane
	Shared Through/Right Lane
	Shared Through/Left Lane
	Shared Through/Right/Left Lane
	Unstriped Sneak-Right Lane
	Signalized Intersection
	STOP Sign



Figure 4-12  
Year 2010 Ambient  
Traffic Volumes



**Legend**  
 ↕ 5/8 Morning/Evening Peak  
 Hour Turning Volume