

## 3.4 TRANSPORTATION AND CIRCULATION

### 3.4.1 INTRODUCTION

This section of the PEIR describes transportation and circulation conditions the City of Lake Elsinore and its SOI and provides a program-level evaluation of the proposed project's impacts on the transportation systems (highways, local roads, bikeways, bus and rail transit systems, and aviation) in the project area. Given the programmatic nature of the PEIR, the environmental setting describes the existing traffic and transportation network including federal highways, state routes, and local roadways that could be affected by the proposed project. The regulatory setting section includes a description of applicable State and local regulatory policies and criteria for evaluating potential impacts associated with the proposed project. A description of the potential impacts of the proposed project is also provided and includes the identification of general plan policies and feasible mitigation that avoid or lessen the impacts.

The analysis presented in this section is based on the Traffic Study performed by Urban Crossroads (Urban Crossroads 2011). This analysis is included as Appendix D to this document. Additional traffic impact analysis by Urban Crossroads regarding the proposed 3rd Street Annexation is included in Appendix C of this document.

### 3.4.2 ENVIRONMENTAL SETTING

The information contained in this Environmental Setting section is primarily from information contained in the City of Lake Elsinore General Plan Background Reports (see Chapter 2 – Transportation Resources) and a Traffic Study performed by Urban Crossroads in 2006 and updated in 2007 (Urban Crossroads 2006). This document is attached as Appendix B to this PEIR.

The City is situated in western Riverside County and is divided generally north/south by I-15 and generally east/west by SR-74. Transportation in and through the City is available in a variety of modes, including vehicular traffic, bicycle and pedestrian travel, and aviation. The study area includes the incorporated City, its SOI, and affected areas in adjacent cities and unincorporated areas of the County of Riverside.

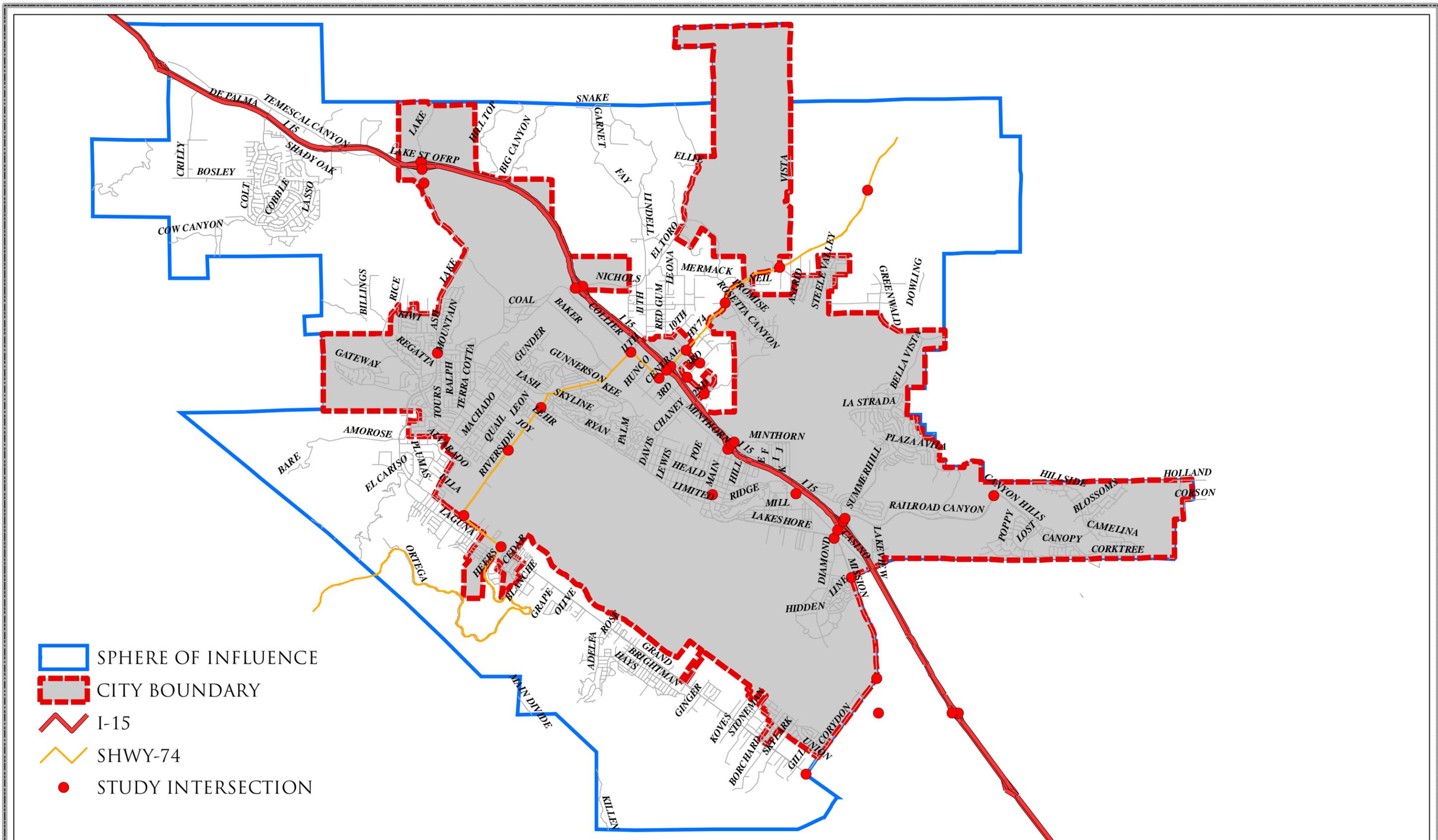
### EXISTING ROADWAY CHARACTERISTICS

A field review of the existing roadway system in the study area has been performed; results are shown in **Figures 3.4-1 through Figure 3.4-4**. **Figure 3.4-1, Existing Conditions - Intersection Analysis Locations**, presents the intersection analysis locations within the study area. **Figure 3.4-2, Existing Number of Intersection Lanes and Controls** and **Figure 3.4-3, Existing Number of Through Lanes** depict the existing number of through lanes on the roadway system, existing intersection lane configurations, and the intersection traffic control devices at the study area intersections. **Figure 3.4-4, City of Lake Elsinore Currently Adopted General Plan Circulation Element**, illustrates the currently adopted City of Lake Elsinore General Plan Circulation

Element. The Riverside County General Plan Circulation Element is shown on **Figure 3.4-5, Riverside County General Plan Circulation Element.**

A brief description of each roadway is provided below.

- **Interstate 15.** Interstate 15 (I-15) traverses in a generally north/south direction along the east side of the lake and the central city. To the north, I-15 connects with the State Route 91 (SR-91), the State Route 60 (SR-60), and the Interstate-10 (I-10) and is the link to greater Los Angeles and the Inland Empire. To the south, I-15 connects with Interstate 215 (I-215) and is the link to San Diego County. I-15 is currently three lanes in each direction within the City of Lake Elsinore planning area.
- **State Route 74.** SR 74 traverses in a generally east/west direction along the north side of the lake and central city. To the west, SR-74 (known as Ortega Highway through the mountainous Cleveland National Forest) connects with Interstate 5 (I-5) and is the link to the coast and Orange County. To the east, SR-74 connects with I-215 and is the link to Perris and Hemet. SR 74 is mostly a two-lane roadway, except for the segment north of the I-15 toward Riverside Street, which has been widened to a four-lane divided roadway to accommodate recent development in the area.
- **Lake Street.** Lake Street south of the I-15 to Lakeshore Drive is a two-lane undivided roadway. South of Lakeshore Drive, it becomes Grand Avenue and it has been widened to a four-lane divided roadway. Lake Street provides major access to northern areas of the City from the I-15.
- **Lakeshore Drive.** Lakeshore Drive, a two-lane undivided roadway, is a major north/south route along the east side of the lake. Portions of Lakeshore Drive north of Riverside Drive and south of Lake Street have been widened adjacent to new development.
- **Riverside Drive.** Riverside Drive is a two-lane undivided roadway, which makes up a segment of SR- 74 along the north end of the lake. The portion of Riverside Drive south of Lincoln Street (adjacent to the new high school) has been widened to a four-lane roadway with a center left turn lane.
- **Railroad Canyon Road.** Railroad Canyon Road north of the I-15 provides a major link between the I-15 and the I-215 east of the City of Lake Elsinore. Railroad Canyon Road is currently a four-lane divided roadway. Significant residential development is in progress along both sides of this roadway.
- **Newport Road.** Newport Road, an extension of Railroad Canyon Road east of the City of Canyon Lake, currently is a two-lane undivided roadway. Significant residential development is also in progress along both sides of this roadway.



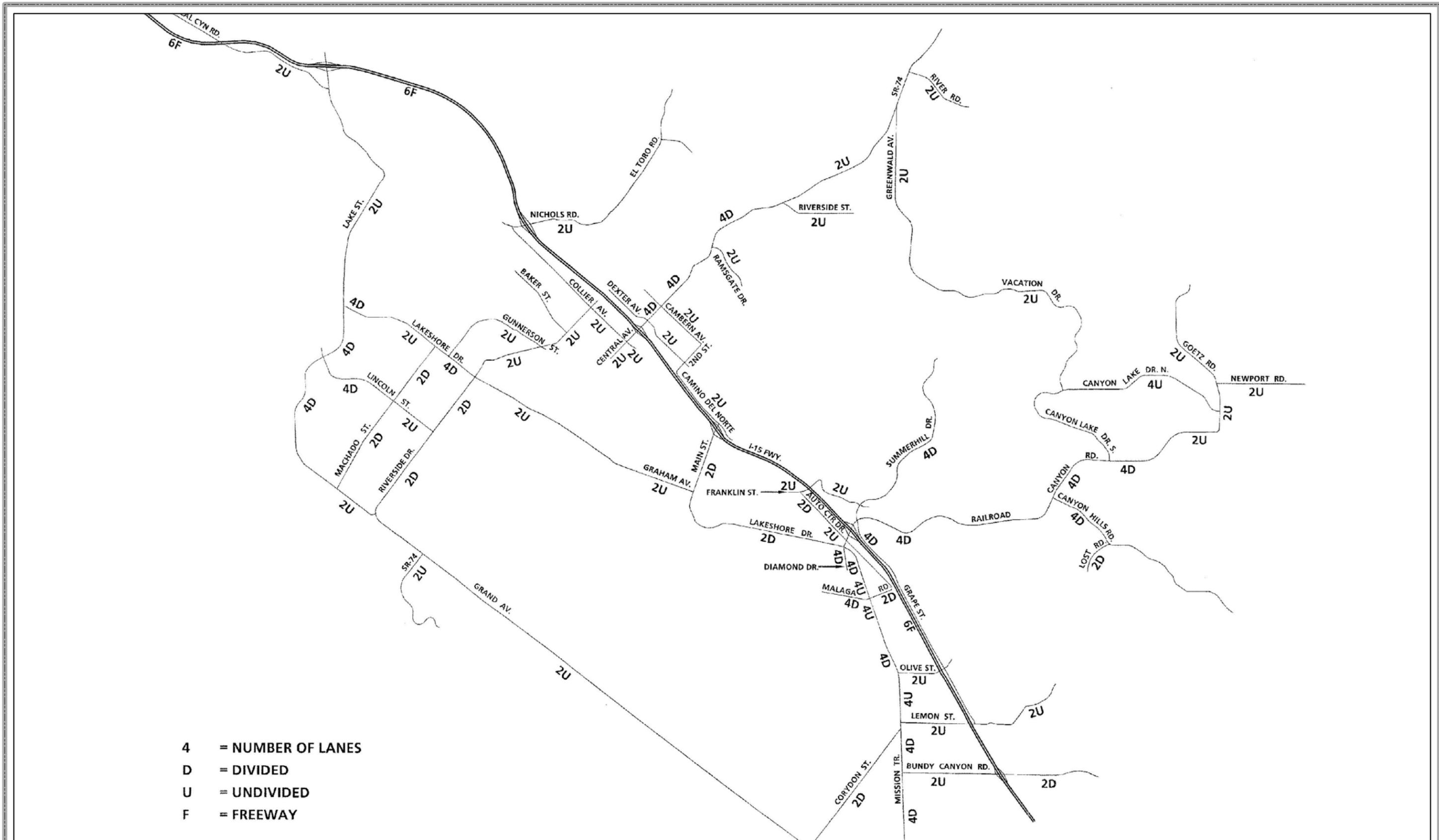
SOURCES: CITY OF LAKE ELSINORE GIS, COUNTY OF RIVERSIDE GIS, URBAN CROSSROADS



EXISTING CONDITIONS  
INTERSECTION ANALYSIS LOCATIONS  
FIGURE 3.4-1



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SOURCES: URBAN CROSSROADS



CITY OF LAKE ELSINORE  
 EXISTING (2005) NUMBER INTERSECTION LANES AND CONTROLS  
 FIGURE 3.4-2

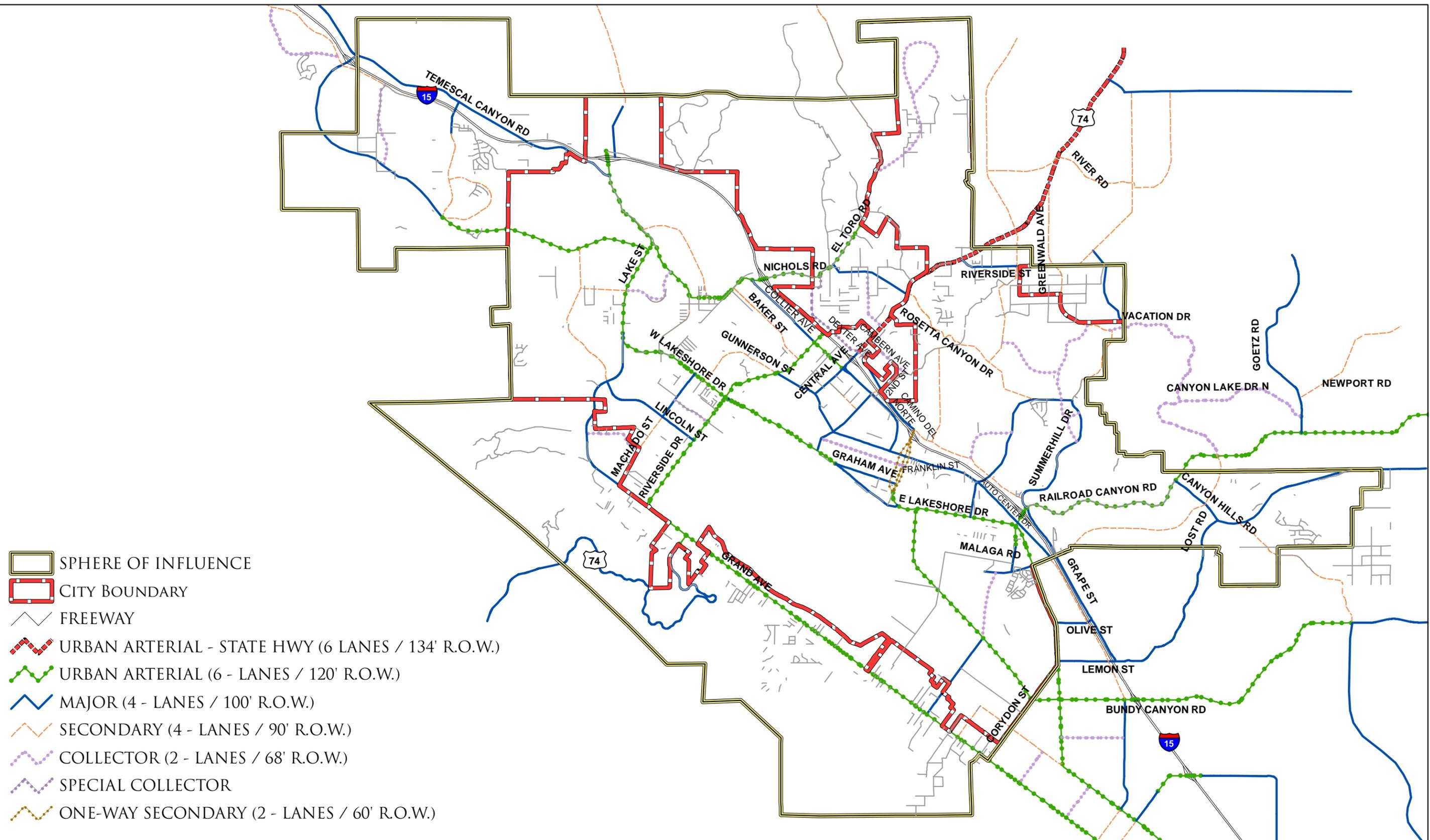


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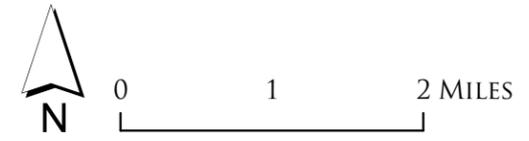


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-  SPHERE OF INFLUENCE
-  CITY BOUNDARY
-  FREEWAY
-  URBAN ARTERIAL - STATE HWY (6 LANES / 134' R.O.W.)
-  URBAN ARTERIAL (6 - LANES / 120' R.O.W.)
-  MAJOR (4 - LANES / 100' R.O.W.)
-  SECONDARY (4 - LANES / 90' R.O.W.)
-  COLLECTOR (2 - LANES / 68' R.O.W.)
-  SPECIAL COLLECTOR
-  ONE-WAY SECONDARY (2 - LANES / 60' R.O.W.)

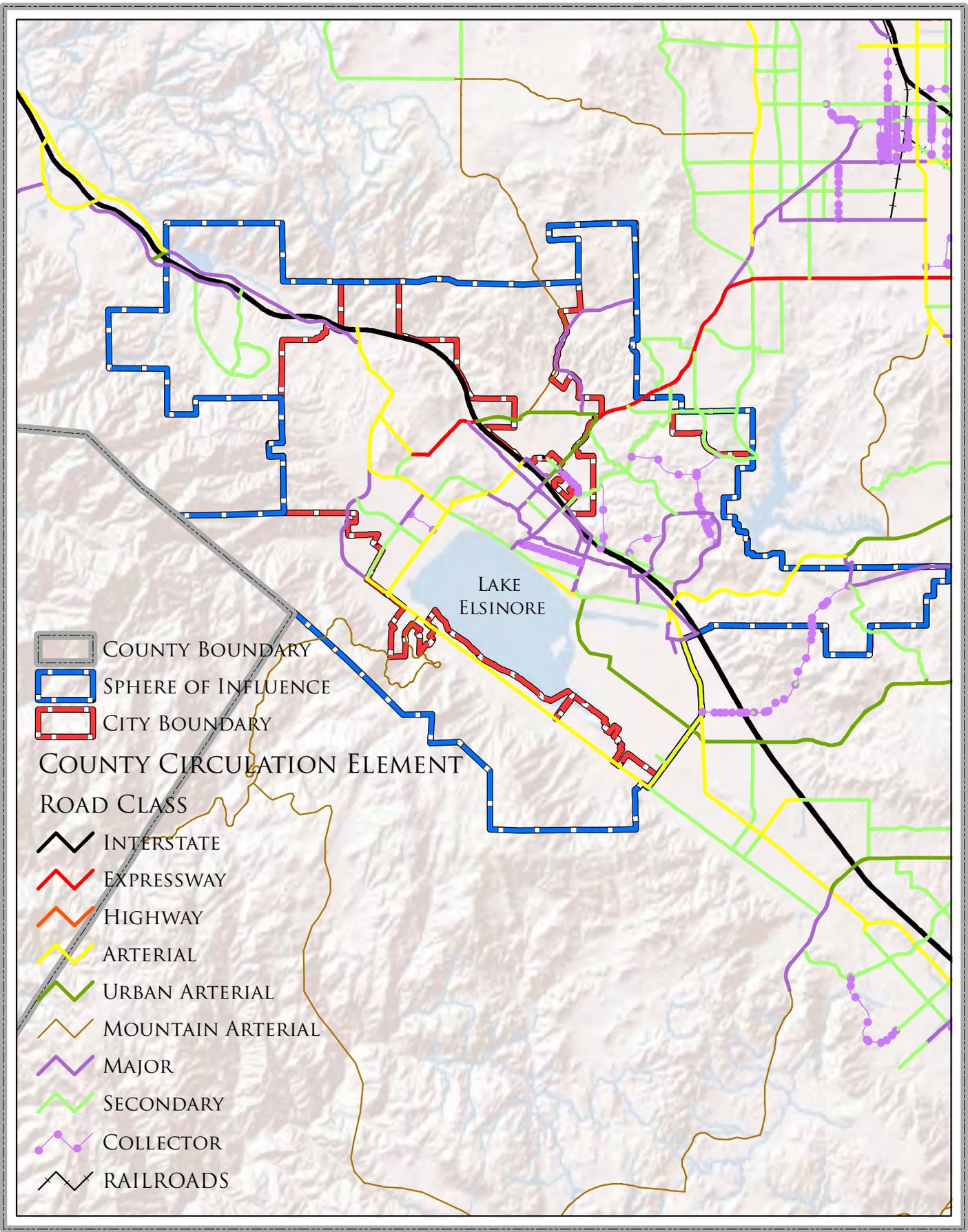
SOURCES: CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE



CITY OF LAKE ELSINORE  
 CURRENTLY ADOPTED  
 GENERAL PLAN CIRCULATION ELEMENT  
 FIGURE 3.4-4



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SOURCES: CITY OF LAKE ELSINORE GIS, COUNTY OF RIVERSIDE GIS, ESRI



RIVERSIDE COUNTY  
 GENERAL PLAN CIRCULATION ELEMENT  
 FIGURE 3.4-5



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- **Mission Trail.** Mission Trail from Diamond Drive to Palomar Street, mostly a four-lane undivided roadway, is an important route south of the commercial area at the Railroad Canyon Road/Diamond Drive interchange with I-15. Portions of the roadway in the vicinity of Bundy Canyon Road have been widened to a four-lane divided section roadway.
- **Grand Avenue.** Grand Avenue between Riverside Drive and Corydon Street is a two-lane divided roadway. This north/south route is the only through roadway on the west side of the lake, and provides an important connection to SR-74 from the area south of the lake.

### EXISTING DAILY TRAFFIC CONDITIONS

**Figure 3.4-6, Existing (2005) Average Daily Traffic (ADT)**, shows the existing average daily traffic (ADT) volumes for the study area. Daily traffic count data was compiled from 24-hour intersection approach count data provided to Urban Crossroads, Inc. or estimated based on peak hour turning movement volumes at adjacent intersections using the following formula for each intersection leg:

$[AM + PM \text{ Peak Hour (Approach + Exit Volume)}] / (7\% + 8\%) = \text{Daily Leg Volume.}$

In the above formula, the constants of 7% and 8% are calculated AM and PM peak hour to ADT volume ratios based on the actual turning movement counts and daily counts.

Daily traffic volumes on the City arterial system and immediate vicinity range from very low volumes to volumes that approach or exceed 40,000 vehicles per day (VPD). Railroad Canyon Road carries volumes greater than 40,000 VPD east of I-15. SR 74 (Central Avenue) carries 33,000 VPD east of Collier Avenue. I-15 carries about 108,000 to 128,000 VPD in the City planning area.

#### Existing Intersection Traffic Conditions

Thirty-seven (37) existing intersections in and near the City were selected for analysis in coordination with City staff for this analysis. The analysis intersections are the following.

Lake Street (north/south [NS]) at:

- I-15 Northbound Ramps (east/west [EW])
- I-15 Southbound Ramps (EW)
- Temescal Canyon Road (EW)
- Lakeshore Drive (EW)

Lakeshore Drive (NS) at:

- Riverside Drive (EW)

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Lincoln Street (NS) at:

- Riverside Drive (EW)

I-15 Northbound Ramps (NS) at:

- Nichols Street (EW)
- Central Avenue (EW)
- Bundy Canyon Road (EW)

I-15 Southbound Ramps (NS) at:

- Nichols Street (EW)
- Central Avenue (EW)
- Bundy Canyon Road (EW)

Grand Avenue (NS) at:

- Riverside Drive (EW)
- Ortega Highway (EW)/SR-74

Collier Avenue (NS)/SR-74 at:

- Riverside Drive (EW)
- Central Avenue (EW)

Riverside Street (NS) at:

- SR-74 (EW)

Greenwald Avenue (NS) at:

- SR-74 (EW)

Rosetta Canyon Drive (EW) at:

- SR-74 (EW)

Cambern Avenue (NS) at:

- SR-74 (EW)
- 3rd Street (EW)

Dexter Avenue (NS) at:

- 3rd Street (EW)
- 2nd Street (EW)

Main Street (NS) at:

- Camino De Norte (EW)

- I-15 Northbound Ramps (EW)
- I-15 Southbound Ramps (EW)
- Graham Avenue (EW)

Franklin Street (NS) at:

- Auto Center Drive (EW)

Summerhill Drive/Grape Street (NS) at:

- Railroad Canyon Road (EW)

Railroad Canyon Road (NS) at:

- I-15 Northbound Ramps (EW)
- Canyon Hills Road (EW)

Diamond Drive (Railroad Canyon Road) (NS) at:

- I-15 Southbound Ramps (EW)
- Mission Trail-Lakeshore Drive (EW)

Mission Trail (NS) at:

- Malaga Road (EW)
- Corydon Street (EW)
- Bundy Canyon Road (EW)

Corydon Street (NS) at:

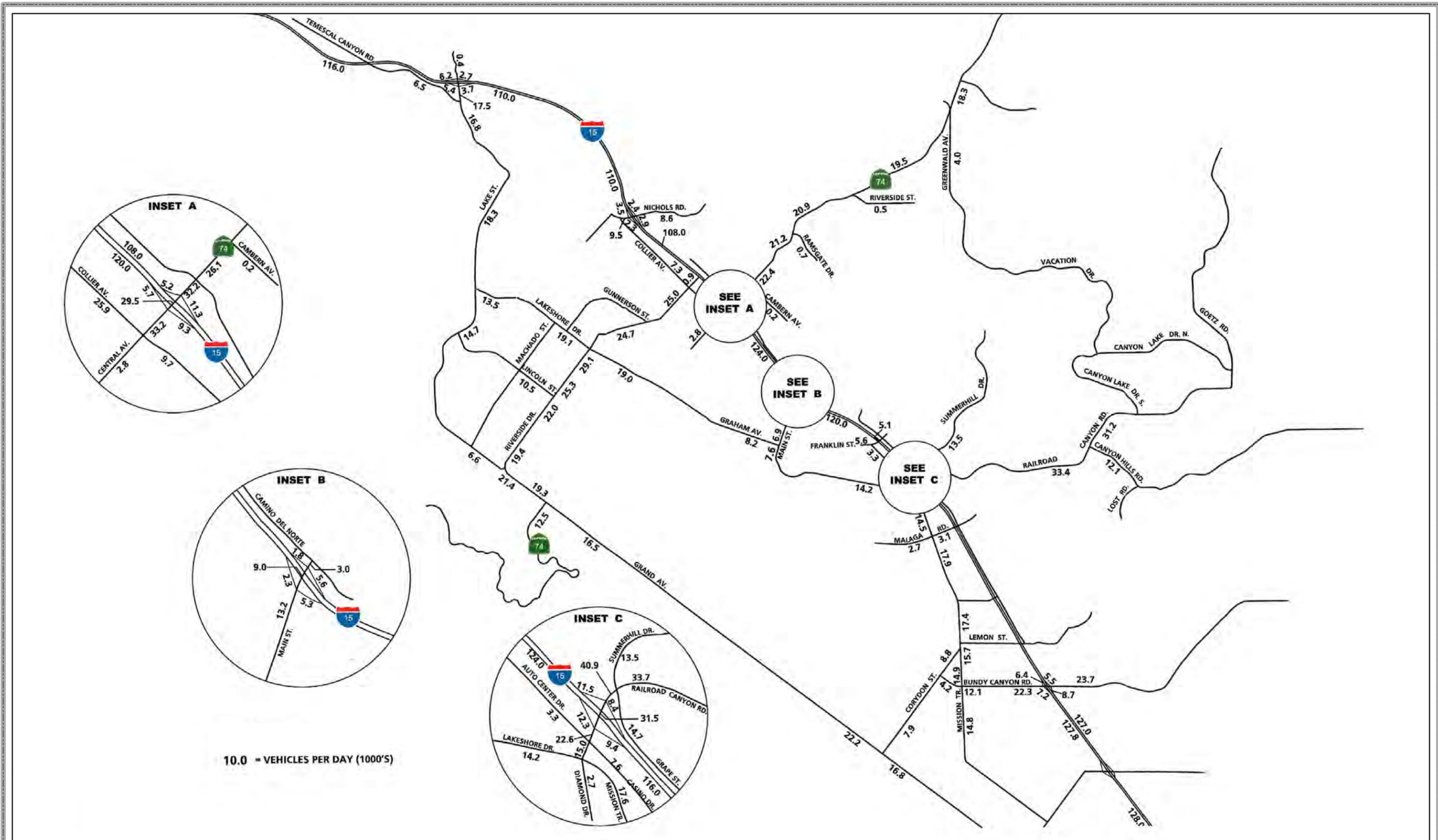
- Grand Avenue (EW)

Peak Hour Traffic Volumes

Peak hour turning movement counts for the existing intersections are included as Appendix E to the Traffic Study (Urban Crossroads 2006). All intersections were monitored between May 2005 and April 2006. The existing turning movement volume data has been reviewed to verify the conservation of flow with adjacent intersections. The existing intersection AM and PM peak hour traffic volumes are included in **Figures 3.4-7, Existing (2005) AM Peak Hour Intersection Volumes**, and **Figure 3.4-8, Existing (2005) PM Peak Hour Intersection Volumes**, respectively.



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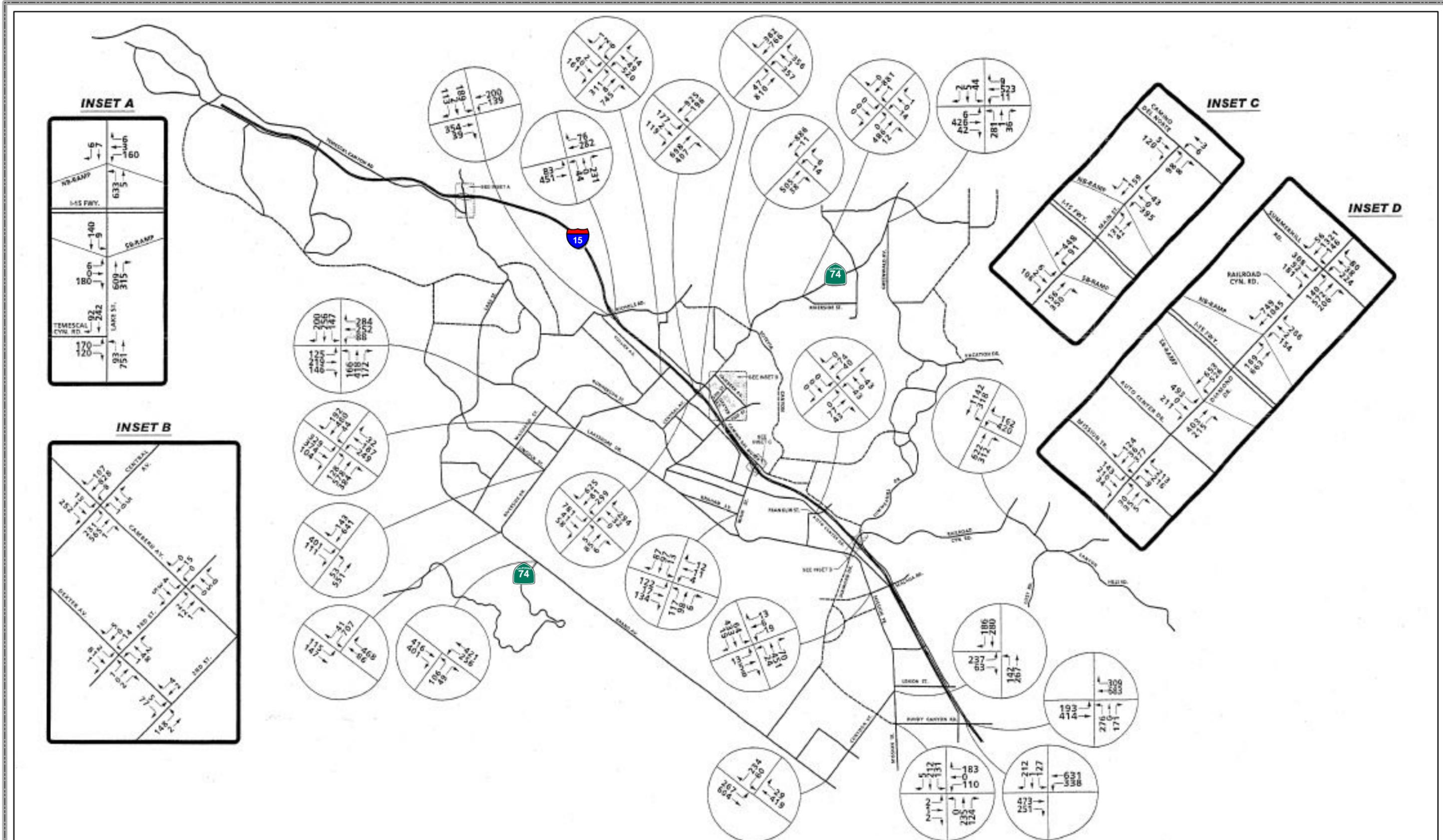
SOURCES: URBAN CROSSROADS



GENERAL PLAN  
EXISTING (2005) AVERAGE DAILY TRAFFIC (ADT)  
FIGURE 3.4-6



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SOURCES: URBAN CROSSROADS



CITY OF LAKE ELSINORE  
 EXISTING (2005) AM PEAK HOUR INTERSECTION VOLUMES  
 FIGURE 3.4-7

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Existing peak hour traffic operations have been evaluated for the 37 study area intersections. The results of this analysis are summarized in **Table 3.4-1, Intersection Analysis Summary - Existing Conditions**, along with the existing intersection geometrics and traffic control devices at the analysis locations. Existing 2000 Highway Capacity Manual (HCM) calculation worksheets are provided in Appendix F to the Traffic Study (Urban Crossroads 2006). As indicated on **Table 3.4-1**, for existing traffic conditions, all study area intersections are currently operating at Level of Service (LOS) “D” or better during AM and PM peak hours except for the following intersections:

Lake Street (NS) at:

- I-15 Northbound Ramps (EW)
- Temescal Canyon Road (EW)

Lincoln Street (NS) at:

- Riverside Drive (EW)

I-15 Southbound Ramps (NS) at:

- Nichols Street (EW)

Grand Avenue (NS) at:

- Riverside Drive (EW)
- Ortega Highway (EW)/SR-74

Collier (NS)/SR-74 at:

- Riverside Drive (EW)

Riverside Drive (NS) at:

- SR-74 (EW)

Rosetta Canyon Drive (NS) at:

- SR-74 (EW)

Main Street (NS) at:

- I-15 Northbound Ramps (EW)

Summerhill Drive/Grape Street (NS) at:

- Railroad Canyon Road (EW)

Based on the existing conditions operations analysis presented in **Table 3.4-1**, the intersections of Railroad Canyon Road at I-15 Northbound and Diamond Drive Ramps at I-15 Southbound operate at acceptable LOS. However, queuing analysis has also been conducted to identify the detailed requirements for turning pocket lengths and ultimately to determine the need for roadway widening.

**Table 3.4-1, Intersection Analysis Summary - Existing Conditions**

#	#	INTERSECTION	TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE			
				NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			AM	PM	AM	PM		
				L	T	R	L	T	R	L	T	R	L	T	R						
#101	1	<b>Lake St. (NS) at:</b> I-15 NB Ramps (EW) With Improvements	CSS	0.5	0.5	0	0	1	1	0	0	0	0	1	0	-	-	--4	18.8	F	C
																		18.80	F	C	
#102	2	I-15 SB Ramps (EW) With Improvements	CSS	0	1	1	0.5	0.5	0	0.5	0.5	1	0	0	0	-	-	17.3	17.2	C	C
#103	3	Temescal Canyon Rd. (EW) With Improvements	TS	0.5	0.5	0	0	1	1	0	1	0	0	0	0	-	-	92.6	94.8	F	F
#104	4	Lakeshore Dr. (EW) With Improvements	TS	1	2	1	2	2	1	0.5	1.5	0	1	1	2>	0.62	0.28	22.5	17.8	C	B
#107	5	<b>Lakeshore Dr. (NS) at:</b> Riverside Dr. (EW) With Improvements	TS	1	2	0	1	2	1	1	2	1	1	1	1	0.78	0.95	38.5	50.4	D	D
#108	6	<b>Lincoln St. (NS) at:</b> Riverside Dr. (EW) With Improvements	TS	0	0	0	1	0	1	1	1	0	0	1	1	0.75	1.06	26.7	--4	C	F
		<b>I-15 NB Ramps (NS) at:</b>																			

#	#	INTERSECTION	TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE			
				NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND								
				L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM		
#105	7	Nichols St. (EW) With Improvements	CSS	1	1	0	0	0	0	1	1	0	0	1	0	-	-	31.8	17.1	D	C
#116	8	Central Ave. (EW) With Improvements	TS	0.5	0.5	1	0	0	0	1	2	0	0	2	1	0.53	0.62	15.3	17.3	B	B
#134	9	Bundy Canyon Rd. (EW) With Improvements	TS	1	1	0	0	0	0	1	2	0	0	2	0	0.77	0.76	21.1	22.6	C	C
#106	10	<b>I-15 SB Ramps (NS) at:</b> Nichols St. (EW) With Improvements	CSS	0	0	0	0.5	0.5	1	0	1	1 >	1	1	0	-	-	--4	12.7	F	B
#117	11	Central Ave. (EW) With Improvements	TS	0	0	0	0.5	0.5	1	0	2	0	1	2	0	0.63	0.82	12.5	19.4	B	B
#133	12	Bundy Canyon Rd. (EW) With Improvements	TS	0	0	0	1	1	0	0	2	0	1	2	0	0.78	0.69	21.3	19.7	C	B
#109	13	<b>Riverside Dr. (NS) at:</b> Grand Ave. (EW) With Improvements	CSS	1	1	0	0	1	1	1	0	1	0	0	0	-	-	95.1	--4	F	F
		<b>Grand Ave. (NS) at:</b> With Improvements																			

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#	#	INTERSECTION	TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE			
				NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND								
				L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM		
#110	14	Ortega Hwy. (EW) With Improvements	TS	0.5	0.5	0	0	1	1> >	1	0	1> >	0	0	0	1.12	1.08	--4	--4	F	F
#111	15	<b>Collier Ave. (NS) at:</b> Riverside Dr. (EW) With Improvements	TS	1	1	0	1	1	1	0.5	0.5	1	0	1	0	1.08	1.34	--4	--4	F	F
#118	16	Central Ave. (EW) With Improvements	TS	1	1	1	1	1	0	1	1	0	1	1	1>	0.89	0.95	44.3	49.7	D	D
#112	17	<b>Riverside St. (NS) at:</b> SR-74 (EW) With Improvements	TS	1	0	1	0	0	0	0	2	0	1	2	0	-	-	21.9	37.5	C	E
#113	18	<b>Greenwald Ave. (NS) at:</b> SR-74 (EW) With Improvements	TS	1	1	0	0	1	0	1	1	1	1	1	0	0.67	0.64	27.2	16.2	C	B
#114	19	<b>Rosetta Canyon Dr. (EW) at:</b> SR-74 (EW) With Improvements	TS	1	0	1	0	0	0	0	2	0	1	2	0	-	-	24.0	38.4	C	E
		<b>Cambern Ave. (NS) at:</b>																			

#	#	INTERSECTION	TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE			
				NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND								
				L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM		
#115	20	SR-74 (EW)	TS	1	1	0	0.5	0.5	1	2	2	0	1	1	1	-	-	34.5	15.4	C	B
#115	21	3rd St. (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0			9.2	9.2	A	A
#115	22	<b>Dexter Ave. (NS) at:</b> 3rd St. (EW)	CSS	0	1	0	0	1	0	0	1	0	1	0	1			9.4	9.7	A	A
#115	23	2nd St. (EW) With Improvements	CSS	0	1	0	0	1	0	0.5	0.5	0	0	1	0			11.9	9.0	B	A
#119	24	<b>Main St. (NS) at:</b> Camino De Norte (EW)	CSS	1	0	1	0	0	0	0	1	1	1	1	0			9.0	9.5	A	A
#119	25	I-15 NB Ramps (EW) With Improvements	CSS	1	1	0	0	1	0	0	0	0	0.5	0.5	1	-	-	85.2	29.7	F	D
#120	26	I-15 SB Ramps (EW) With Improvements	CSS	0	1	1	1	1	0	0.5	1.5	0	0	0	0	-	-	25.4	17.7	D	C
#121	27	Graham Ave. (EW) With Improvements	CSS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	0.37	0.72	10.1	16.6	B	C
#122	28	<b>Franklin St. (NS) at:</b> Auto Center Dr. (EW) With Improvements	CSS	0	1	1	0.5	0.5	0	0	0	0	1	0	1	-	-	10.8	13.8	B	B
		<b>Summerhill Dr./Grape St. (NS)</b>																			

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#	#	INTERSECTION	TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE			
				NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND								
				L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM		
#123	29	Railroad Canyon Rd. (EW) With Improvements	TS	2	2	1	1	1	1>	2	2	0	1	3	0	0.73	0.83	52.4	70.3	D	E
#124	30	<b>Railroad Canyon Rd. (NS) at:</b> I-15 NB (EW) With Improvements	TS	1	2	0	0	2	1	0	0	0	0.5	0.5	1	0.84	0.93	26.5	38.9	C	D
#132	31	Canyon Hills Rd. (EW) With Improvements	TS	1	3	1	1	3	0	0	0	0	2	0	1	0.75	0.44	25.3	11.8	C	B
#125	32	<b>Diamond Dr (NS) at:</b> I-15 SB (EW) With Improvements	TS	0	2	1	1	2	0	1	1	0	0	0	0	0.83	0.97	36.4	47.1	D	D
#126	33	Mission Trail-Lakeshore Dr. (EW) With Improvements	TS	1	2	1	2	2	0	1	2	0	1	2	1	0.45	0.51	36.8	37.7	D	D
#127	34	<b>Mission Trail (NS) at:</b> Malaga Rd. (EW) With Improvements	TS	1	2	0	1	2	0	1	1	1	1	2	0	0.27	0.42	17.3	24.4	B	C
#128	35	Corydon St. (EW)	TS	1	2	0	0	2	1>	1	0	1	0	0	0	0.43	0.45	16.4	15.2	B	B

#	#	INTERSECTION	TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE			
				NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND								
				L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM		
#131	36	With Improvements Bundy Canyon Rd. (EW) With Improvements	TS	1	2	0	1	2	0	0	1	0	1	1	0	0.42	0.72	17.9	22.1	B	C
#130	37	<b>Corydon St. (NS) at:</b> Grand Ave. (EW) With Improvements	TS	0	0	1	0.5	0.5	1>	1	1	0	1	1	0	0.63	0.72	15.3	20.9	B	C

<sup>1</sup> When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; >> = Free Right Turn; > = Right Turn Overlap;

<sup>2</sup> Delay and level of service calculated using the following analysis software: Traffix, Version 7.7 (2004). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross St. stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

<sup>3</sup> TS = Traffic Signal

AWS = All Way Stop

CSS = Cross St. Stop

--4 = Delay High, Intersection Unstable, Level of Service "F".

- = Not Applicable.

### Queuing Analysis and Stacking Distance

**Table 3.4-2, Existing Conditions Stacking Requirements For Railroad Canyon Road/Diamond Drive Interchange Area**, summarizes the queuing analysis for the intersections of Railroad Canyon Road at I-15 Northbound and Diamond Drive Ramps at I-15 Southbound during existing conditions. The 95th percentile queue length has been selected for the queue calculation. As shown in **Table 3.4 2**, the queues in number of vehicles have been multiplied by an average per vehicle stacking distance of 22 feet and divided by the number of lanes in the lane group.

The required queue lengths for existing conditions have been compared to the available stacking distances provided for each study intersection approach to determine whether any stacking deficiencies exist.

As indicated in **Table 3.4-2**, the following approaches are deficient in stacking distance requirements during AM and/or PM peak hours for existing conditions:

Railroad Canyon Road (NS) at:

- I-15 Northbound (EW)
  - Northbound Left
  - Northbound Through
  - Southbound Through
  - Southbound Right
  - Westbound Right

Diamond Drive Ramps (NS) at:

- I-15 Southbound (EW)
  - Northbound Through
  - Northbound Right
  - Southbound Left
  - Eastbound Left
  - Eastbound Shared Through Right

The stacking conditions at the interchange area are also shown in **Figure 3.4-9, Diamond Drive/I-15 Freeway Interchange Stacking Requirements**. The queuing analysis indicates that extra storage may be needed at many locations, which will result in roadway widening.

**Table 3.4-2, Existing Conditions Stacking Requirements For Railroad Canyon Road/Diamond Drive Interchange Area**

INTERSECTION	APPROACH	NO. OF LANES	HCM2000 (95% VEHICLES PER LANE)		LENGTHS (VEHICLES *22 FEET)		PROVIDED STACKING DISTANCE <sup>1</sup>	ACCEPTABLE?	
			AM	PM	AM	PM		AM	PM
Railroad Canyon Road (NS)/I-15 Freeway Northbound (EW)	NBL	1	20	22	440	484	210	No	No
	NBT	2	10	38	220	836	460	Yes	No
	NBR				0	0		Yes	Yes
	SBT	2	24	28	528	616	145	No	No
	SBR	1	50	50	1100	1100	165	No	No
	WBL/TL	1	12	16	264	352	645	Yes	Yes
	WBR	1	26	50	572	1100	645	Yes	No
Diamond Drive Ramps (NS)/I-15 Freeway Southbound (EW)	NBT	2	18	34	396	748	340	No	No
	NBR	1	22	16	484	352	340	No	No
	SBL	1	44	46	968	1012	245	No	No
	SBT	2	14	18	308	396	475	Yes	Yes
	EBL	1	22	34	484	748	475	No	No
	EBT/TR	1	40	68	880	1496	475	No	No
<sup>1</sup> Stacking distance based on turn lane length of distance to next (upstream) traffic signal for through movements. <sup>2</sup> Required stacking distance based on 95 <sup>th</sup> percentile queue length (2 x average) as reported on HCM worksheets.									



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SOURCES: CITY OF LAKE ELSINORE, URBAN CROSSROADS



DIAMOND DRIVE/I-15 FREEWAY  
INTERCHANGE STACKING REQUIREMENTS  
FIGURE 3.4-9

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### **Existing Intersection Traffic Signal Warrant Analysis**

The completed Peak Hour Traffic Signal Warrant Analysis indicates that the following intersections appear to currently warrant a traffic signal (see Appendix G to the 2006 Traffic Study):

Lake Street (NS) at:

- Temescal Canyon Road (EW)

Grand Avenue (NS) at:

- Ortega Highway (EW)

### **Existing Transit Services**

**Figure 3.4-10, Existing Transit System**, illustrates the current Riverside Transit Agency (RTA) system served in the Lake Elsinore area. SR 74 north of the I-15 is currently served by RTA Route 22. The study area is also currently served by RTA Routes 7 and 8 along Riverside Drive, Grand Avenue, Casino Drive, Mission Trail, Malaga Road, and Palomar Street. RTA Route 40 serves along Railroad Canyon Road and Newport Road.

### **Bikeways**

**Figure 3.4-11, City of Lake Elsinore Existing Bikeway Plan** illustrates the existing bikeway plan. As illustrated, the following four levels of bikeway classifications are designated for the route, according to the type of right-of-way or use:

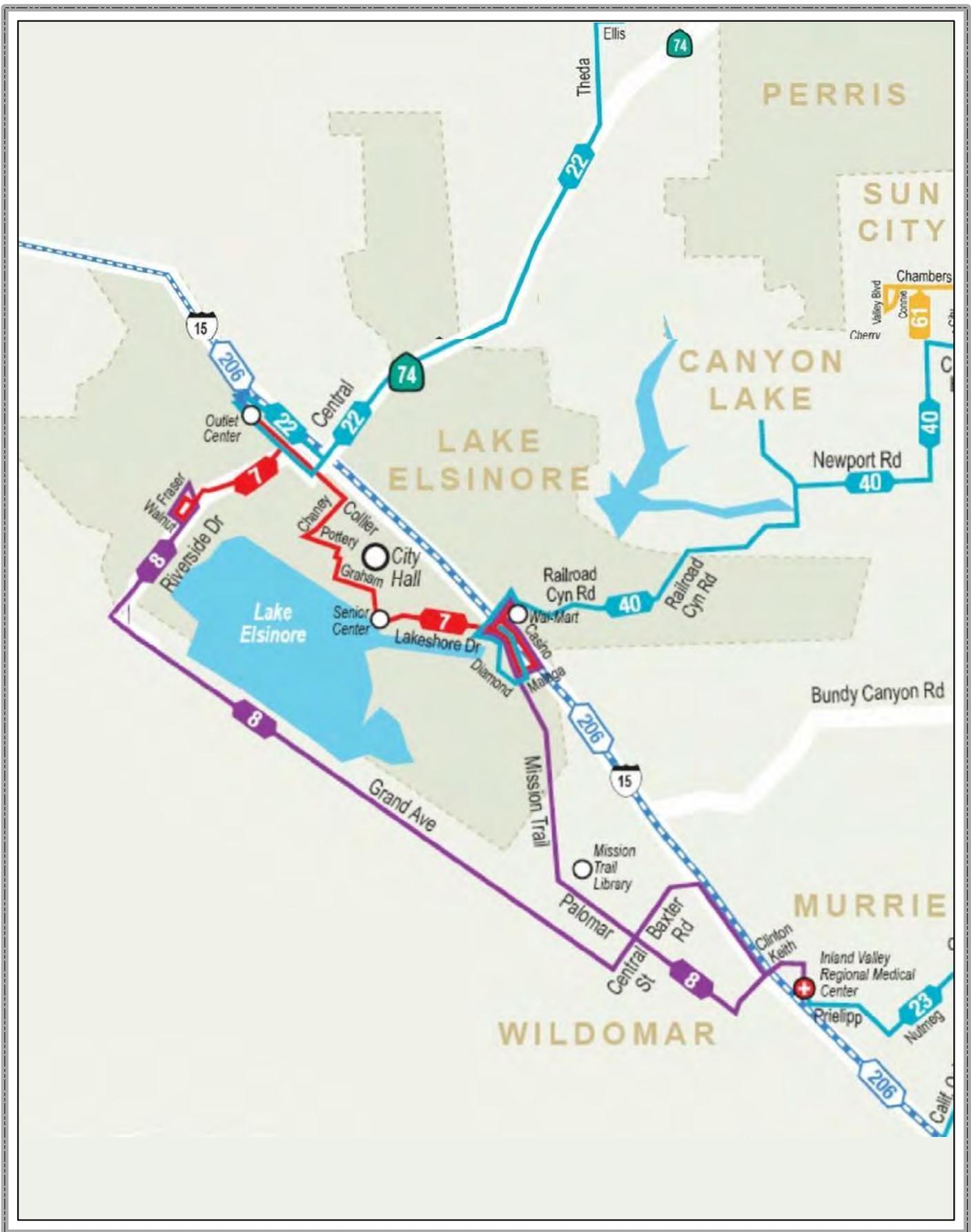
- Class I Bikeway – Bike paths or trails with a completely separated right-of-way for the exclusive use of bicycles.
- Class II Bikeway – Bike lanes that provide a restricted right-of-way for the exclusive or semi-exclusive use of bicycles with the permitting of vehicle parking and vehicle/pedestrian cross flows.
- Class III Bikeway – Bike routes that provide a right-of-way designated by signs or permanent markings and are shared with pedestrians or vehicles.
- Multi-Purpose – Paths or trails available for joint bicycle, pedestrian and equestrian use that may or may not be separated or paved.

### **Trail System**

**Figure 3.4-12, Elsinore Area Trails and Bikeway System**, illustrates the Elsinore area trails and bikeway system obtained from the Riverside Transportation Department Adopt-a-Trail program. The trail system will be expanded by incorporating the comments from the City and the project team. The City has proposed to provide a trail system that connects to the regional trail system. A trail loop around the lake is also under consideration.



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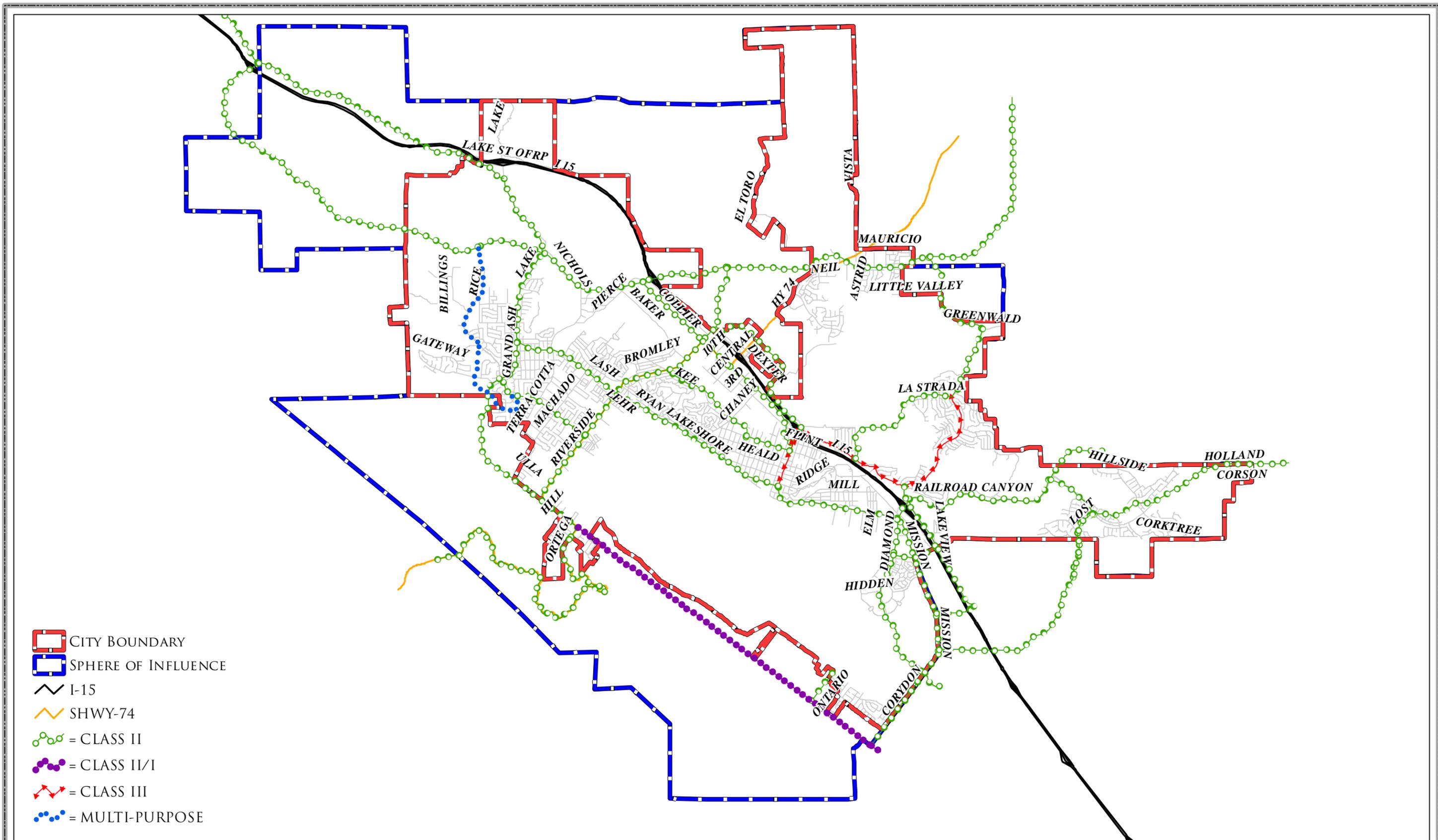


SOURCES: URBAN CROSSROADS

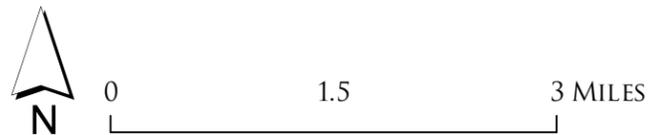


CITY OF LAKE ELSINORE  
EXISTING TRANSIT SYSTEM  
FIGURE 3.4-10

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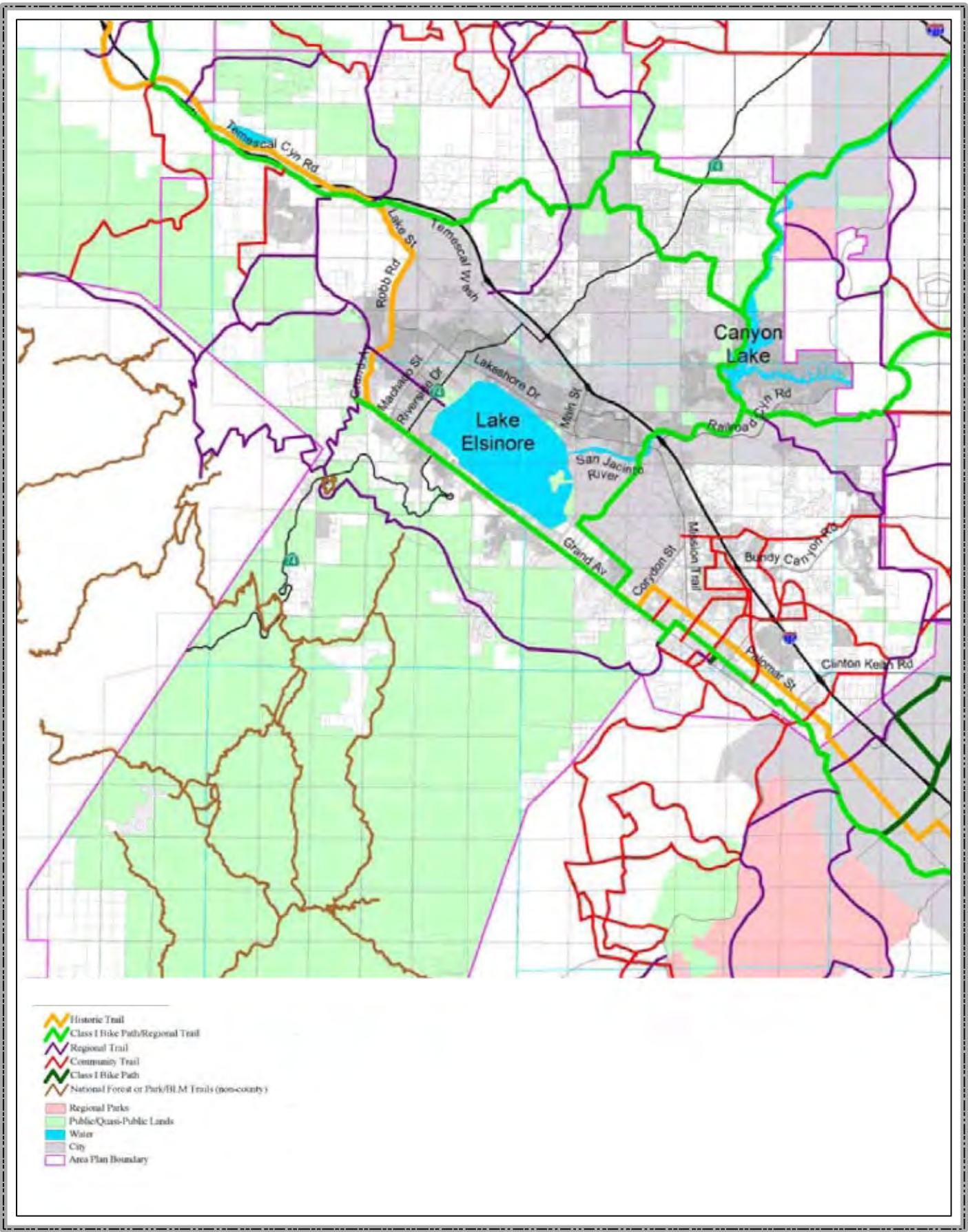


SOURCES: CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE



CITY OF LAKE ELSINORE  
EXISTING BIKEWAY PLAN  
FIGURE 3.4-11

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SOURCES: COUNTY OF RIVERSIDE



ELSINORE AREA  
TRAILS AND BIKEWAY SYSTEM  
FIGURE 3.4-12



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### **3rd Street Annexation**

The 3rd Street Annexation project is generally located south of SR 74 and west of Cambern Avenue within the sphere of influence of the City. **Table 3.4-3, 3rd Street Annexation Area Current Zoning and Land Use Plan**, shows the land use data summary for the project. As illustrated, a total of 310 acres of residential and commercial land uses are proposed for the development.

To support the annexation project, the following additional intersections have been analyzed for the General Plan conditions.

Dexter Avenue (NS) at:

- 3rd Street (EW)
- 2nd Street (EW)

Cambren Avenue (NS) at:

- 3rd Street (EW)

Camino Del Norte (NS) at:

- Main Street (EW)

**Table 3.4-3, 3rd Street Annexation Area Current Zoning and Land Use Plan<sup>1</sup>**

LAND USE	CURRENT ZONING			LAND USE PLAN		
	APPROXIMATE ACRES	DENSITY	DUS	APPROXIMATE ACRES	DENSITY	DUS
Hillside Residential	0	NA	0	37.5	0.25	9
Low Medium	73.12	6	438	181.2	6	1087
Medium	0	12	0	54.5	18	981
Mixed Use	0	NA	0	12.11	18	217
General Commercial	237.46	NA	0	8.68	NA	0
Business Professional	0	NA	0	16.59	NA	0
<b>Total</b>	<b>310.58</b>		<b>438</b>	<b>310.58</b>		<b>2294</b>

<sup>1</sup> Note: Table excludes area associated with main roads. Densities shown are the maximum densities permitted. Densities have not yet been approved and are subject to change.

### 3.4.3 REGULATORY SETTING

#### FEDERAL

There are no federal traffic and circulation regulations relevant to the proposed project.

#### STATE

##### The California Complete Streets Act (AB 1358)

On September 30, 2008 Governor Arnold Schwarzenegger signed Assembly Bill 1358, the California Complete Streets Act. The Act states: “In order to fulfill the commitment to reduce greenhouse gas emissions, make the most efficient use of urban land and transportation infrastructure, and improve public health by encouraging physical activity, transportation planners must find innovative ways to reduce vehicle miles traveled (VMT) and to shift from short trips in the automobile to biking, walking and use of public transit.”<sup>2</sup>

The legislation impacts local general plans by adding the following language to Government Code Section 65302(b)(2)(A) and (B):

(A) Commencing January 1, 2011, upon any substantial revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of the streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.

(B) For the purposes of this paragraph, “users of streets, roads, and highways” means bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.

#### LOCAL

##### The Regional Transportation Plan

The 2008 Regional Transportation Plan: Making the Connections (RTP) provides a regional framework for the six counties of Southern California including Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The RTP focuses on improving the balance between land use and the current as well as future transportation systems. The Southern California Association of Governments (SCAG) is required to develop, maintain, and update the RTP on a three-year cycle.

The 2008 RTP presents the transportation vision with an investment framework for addressing the region’s transportation and related challenges over the plan horizon of 2035. The RTP provides the basic policy and program framework for long-term investment in the vast regional transportation system in a coordinated, cooperative, and continuous manner. Transportation

investments in the SCAG region that receive State or federal transportation funds must be consistent with the RTP and must be included in the Regional Transportation Improvement Program (RTIP) when ready for funding.

### **Measure A**

In 1988 voters in Riverside County approved Measure A, a half-cent sales tax for transportation. Measure A is administered by the Riverside County Transportation Commission (RCTC). Funds raised by Measure A (approximately \$1 billion from 1989 to 2009) go back to each of three districts: Western Riverside County, the Coachella Valley, and Palo Verde, in proportion to what they contribute. Between 1990 and 2006 cities and county areas in Western Riverside County had received \$370.3 million, cities and county areas in the Coachella Valley had received \$119.6 million, and cities and county areas in the Palo Verde district had received \$14.2 million. In 2002, Measure A was extended by Riverside County voters. Now, Measure A will continue to fund transportation improvements through 2039. Measure A funded projects that benefit the City of Lake Elsinore include:

#### *1989-2009 Completed Projects*

- State Route 74 Widened to four lanes from I-15 at Dexter Avenue in Lake Elsinore to Wasson Canyon Road, widened to four lanes from Wasson Canyon Road to 7th Street in Perris
- Call Boxes - Added call boxes to state and interstate highways
- Commuter Rail - Provided Metrolink commuter rail service from Riverside to Los Angeles and Orange counties including five stations and tracks.

#### *Ongoing Measure A Projects*

- Rideshare and Specialized Transit Services - Implement programs to promote the use of carpools, vanpools and other rideshare arrangements. Funded new and existing services to assist seniors and persons with disabilities
- Local Streets and Roads - Provide Measure A revenues to each city and the county to improve, maintain and repair high priority local streets and roads. Measure A funds supplement and do not replace other revenues previously available for transportation projects
- Park and Ride Lots - Lease park and ride lots at various locations on I-15, I-215, SR 60, and SR 91

#### *2009-2039 Measure A Programmed Projects*

RCTC is in the process of programming all of the projects listed in the extension of Measure A. The following highway project has been recently identified and is being programmed:

- Interstate 15 - Add one lane in each direction from SR 60 to San Diego County line.

### **Western Riverside Council of Governments Transportation Uniform Mitigation Fee**

The City of Lake Elsinore is a member agency of the Western Riverside Council of Governments (“WRCOG”), a joint powers agency comprised of the County of Riverside and 16 cities located in western Riverside County. Acting in concert, the WRCOG member agencies developed a plan whereby the shortfall in funds needed to enlarge the capacity of the regional system of highways and arterials in western Riverside County could be made up in part by a Transportation Uniform Mitigation Fee (“TUMF”) on future residential, commercial and industrial development.

Implemented in 2003, the Transportation Uniform Mitigation Fee (TUMF) is the largest multi-jurisdictional fee program in the nation. As Riverside County’s growth rate continues to surpass all but a few regions nationwide, the TUMF has become a critical way to make sure that growth doesn’t create gridlock on regional and local thoroughfares. Under the TUMF, western Riverside County is divided into five zones. The City is located in the Southwest TUMF Zone.

The TUMF is structured so that 48.7% of funds generated in each zone go back to that zone to be programmed for projects. Another 48.7% is allocated to regional inter-zone projects programmed by the Riverside County Transportation Commission (RCTC), and 2.6% is allocated for regional transit projects programmed by the Riverside Transit Agency.

### **Riverside County Integrated Project**

The purpose of the Riverside County Integrated Project (RCIP) is to integrate the processes of planning land use, transportation improvements and habitat preservation for endangered species. A primary objective of the RCIP is to accommodate projected population growth within Riverside County by focusing development within areas that will be readily accessible; provide a good quality of life for future residents; and minimize environmental and community impacts, including impacts on sensitive habitats and endangered species.

### **Congestion Management Program**

Congestion Management Plans (CMPs) are required pursuant to California Proposition 111, passed in June 1990, which requires that a designated Congestion Management Agency develop and adopt a CMP for each County with a population of more than 50,000. On June 11, 1990, the Riverside County Transportation Commission (RCTC) was designated as the CMA for Riverside County. The RCTC is responsible for the development, monitoring, and biennial updating of the County’s CMP. The goals of the County’s CMP are to reduce traffic congestion and to provide a mechanism for coordinating land use and development decisions. The CMP is also used as a method for proposing transportation projects that are eligible to compete for state gasoline tax funds.

In 1997, Riverside County Transportation Commission (RCTC) modified its original CMP to focus on meeting federal Congestion Management System (CMS) guidelines. The focus of the CMP is the development of an Enhanced Traffic Monitoring System in which real-time traffic count data can be accessed by RCTC, Coachella Valley Association of Governments, and

Caltrans to evaluate the condition of the CMS, as well as meet other monitoring requirements at the State and Federal levels. During preparation of the 2009 CMP, deficiencies were found on the CMP system based upon the year 2009 monitoring effort. The deficient road segments will continue to be monitored to determine if the deficiencies reflect temporary or permanent conditions. The CMP for Riverside County was developed through a cooperative effort involving local jurisdictions, public agencies, businesses, and community groups. The regional transportation system subject to the CMP is defined as all state highways and principal arterials.

The RCTC has defined the CMP roadway system in Lake Elsinore to be State Route 74 (SR-74) and Interstate 15 (I-15). All local jurisdictions are responsible for determining the impacts of local development/land use decisions on the CMP roadway system. RCTC requires local agencies whose developments impact the CMP system by causing the Level of Service (LOS) on a non-exempt segment to fall to “F” to prepare deficiency plans. These plans would outline specific mitigation measures and a schedule for mitigating the deficiency.

#### **Lake Elsinore Municipal Code (LEMC) – Title 10, Chapter 10.24 and Chapter 10.52**

Chapter 10.24 of the Lake Elsinore Municipal Code establishes the City’s authority to prohibit the use of any street, other than a designated truck route, by any commercial vehicle exceeding a specified maximum weight limit. This chapter provides that any street may be designated as a truck route and that any such designation shall be made by a resolution of the City Council.

Chapter 10.52 of the Municipal Code provides that the City Council may establish bicycle routes and/or lanes on any street or sidewalk, or on any other facility provided for such use.

#### **Lake Elsinore Municipal Code (LEMC) – Title 16, Chapter 16.83**

Chapter 16.83 of the Lake Elsinore Municipal Code implements the Western Riverside County Transportation Uniform Mitigation Fee (TUMF) Program. Chapter 16.83 provides that the City Council shall adopt an applicable TUMF fee schedule through a separate resolution, which may be amended from time to time. The Director of Community Development or his/her designee is authorized to levy and collect the TUMF. The fees shall be paid at the time a certificate of occupancy is issued for a development project or upon final inspection, whichever comes first. However, payment of the TUMF is permitted prior to issuance of an occupancy permit or final inspection. The TUMF fee is currently collected by the Engineering Division of the City’s Public Works Department.

#### **Lake Elsinore Municipal Code (LEMC) – Title 16, Chapter 16.74**

The purpose and intent of Chapter 16.74 of the City of Lake Elsinore Municipal Code is to establish a “program for the adoption and administration of development impact fees by the City for the benefit of the citizens whereby as a condition to the issuance of a building permit or certificate of occupancy by the City the property owner or land developer will be required to pay development impact fees or provide other consideration to the City for the purpose of



defraying the costs of public expenditures for capital improvements (and operational services to the extent allowed by law) which will benefit such new development.” (Section 16.74.010)

This chapter establishes a “Traffic Infrastructure Fee” (Section 16.74.040) to mitigate the additional traffic burdens created by new development to the City’s arterial and collector street system, a Development Impact Fee identified as the Traffic Infrastructure Fee will be imposed on all new development in the City to finance the costs of traffic infrastructure. The traffic infrastructure fees are currently \$1, 197 per Single-Family Residential unit, \$838.00 per Multifamily Residential unit, \$3.35 per square foot of Commercial Building, \$1.25 per square foot of Office Building, and \$0.71 per square foot of Industrial Building.

### 3.4.4 GENERAL PLAN UPDATE GOALS AND POLICIES

The City of Lake Elsinore General Plan Update addresses Transportation and Circulation in Chapter 2.0 (Community Form) and in various District Plans. The goals, policies and implementation programs listed in **Table 3.4-4, General Plan Transportation and Circulation Resources Goals, Policies and Implementation Programs**, and **Table 3.4-5, District Plan Transportation and Circulation Goals, Policies and Implementation Programs**, apply to these resources. The intent of these goals, policies and implementation programs is to develop and maintain an effective transportation and circulation system that will protect and enhance the environmental quality of the community and the region.

**Table 3.4-4, General Plan Transportation and Circulation Goals, Policies and Implementation Programs**

GENERAL PLAN GOALS, POLICIES AND IMPLEMENTATION PROGRAMS	
<b>Chapter 2.0 - Community Form (Section 2.4 - Circulation)</b>	
Goal 6	Optimize the efficiency and safety of the transportation system within the City of Lake Elsinore.
Policy 6.1	The interconnection and coordination of traffic signals shall be achieved through two processes, namely the requirements in the conditions of approval on development projects and/or through the implementation of Capital Improvement Program projects.
Policy 6.2	Enforce and comply with proper intersection “sight distance” requirements as described by the Engineering Division.
Policy 6.3	Maximize the use of shared driveways and on-site circulation to minimize conflicts at access points to the roadway network.
Policy 6.4	Maintain the system of bike lanes and multi use trails throughout the City. Encourage the implementation of the network of Class I, II, and III bike lanes on all development projects through construction of the facility as described in the Bike Lane Master Plan and/or the Trails Master Plan.
Policy 6.5	The City will monitor traffic and congestion on Grand Avenue and Corydon Street through the review of project-specific traffic studies, and apply mitigation measures to ensure that projected traffic does not exceed daily capacities as new development occurs in the area.

GENERAL PLAN GOALS, POLICIES AND IMPLEMENTATION PROGRAMS	
<u>Policy 6.6</u>	As appropriate, coordinate City improvements with the efforts of the County and adjacent cities that provide a circulation network which moves people and goods efficiently to and from the City.
<u>Implementation Program</u>	Through the development review and CEQA processes the City shall ensure the efficiency and safety of roadways, implement the Bike Lane Master Plan and Trails Master Plan, and consider innovative on-site circulation to minimize conflicts with the roadway network.
<b>Chapter 2.0 – Community Form (Section 2.7 – Parks and Recreation)</b>	
<b>Goal 9</b>	Establish a primary trail network for equestrians and hikers.
<u>Policy 9.1</u>	Encourage public and private systems that interface with other existing and proposed trails (i.e., bikeways) assuring links with the City, County of Riverside, and state recreational facilities.
<u>Implementation Program</u>	The City shall implement strategies for the Trails Master Plan when feasible.

**Table 3.4-5, District Plan Transportation and Circulation Goals, Policies and Implementation Programs**

DISTRICT PLAN	DISTRICT PLAN GOALS, POLICIES AND IMPLEMENTATION PROGRAMS
Alberhill	<p><b>Goal 4</b> Support a multi-modal transportation system with connections to new development, Interstate 15, recreational and open space areas, and districts to the south that serves the needs of residents.</p> <p><b>Policy AH 4.1</b> The interchange of Lake Street and I-15 shall be improved to meet future traffic demand and satisfy the minimum level of service required by the City.</p> <p><b>Policy AH 4.2</b> Through the project and CEQA processes identify and require improvements to Lake Street and Nichols Road as the most significant roadways within the Alberhill District for transit, landscaping, pedestrian travel, and bikeways.</p> <p><b>Policy AH 4.3</b> Through the project and CEQA processes require the construction or expansion of roadways serving new developments located east and west of Lake Street.</p> <p><b>Policy AH 4.4</b> Lake Street shall be constructed in accordance with Urban Arterial standards.</p> <p><b>Policy AH 4.5</b> Encourage the use of traffic-calming measures within commercial and institutional developments along Lake Street when recommended by traffic studies.</p> <p><u>Implementation Program</u> The City shall assess development projects and impose conditions for safe connectivity between residents and services.</p>



DISTRICT PLAN	DISTRICT PLAN GOALS, POLICIES AND IMPLEMENTATION PROGRAMS
Ballpark	<p>Goal 3 Through the project and CEQA processes improve the nearby street system for the Diamond Drive and Railroad Canyon Road interchange improvement, especially the intersection of Auto Center Drive and Diamond Drive, Railroad Canyon Road, Grape Street, and southbound on-ramp to I-15 as recommended by traffic studies.</p> <p>Policy BP 3.1 Encourage the use of traffic-calming measures along roadways that provide pedestrian access to Diamond Stadium as recommended by traffic studies.</p> <p>Policy BP 3.2 Continue to conduct necessary studies in coordination with Caltrans in order to make interchange improvements at I-15 and Diamond Drive/Railroad Canyon Road.</p> <p>Policy BP 3.3 Lakeshore Drive and Mission Trail are designated Urban Arterials. As future volumes increase and the Level of Service falls below “E,” these existing four lane streets shall be widened to six lanes, the full width of Urban Arterials.</p> <p>Policy BP 3.4 Continue to pursue a citywide trail system that integrates regional trails and provides connections to Diamond Stadium and the Lake Edge Parkway multi-purpose trail.</p> <p>Policy BP 3.5 Pursue the removal of certain areas within the Ballpark District from the East Lake Specific Plan.</p> <p><u>Implementation Program</u> Through the development review process ensure that the regional trail and connections to Diamond Stadium as depicted in the adopted Diamond Specific Plan are implemented. Through the CEQA process require additional traffic studies when necessary to ensure the appropriate construction of roadway widths and intersection configurations that support of Level of Service “E” or better.</p>
Business District	<p>Goal 4 Provide a safe and comprehensive roadway network for vehicular, truck, bicycle, and pedestrian traffic throughout the Business District.</p> <p>Policy BD 4.1 Continue to pursue the improvement of the Central Avenue (SR74)/I-15 and Nichols Road/I-15 interchanges in order to reduce congestion and delay. Consider the preparation of necessary studies in coordination with Caltrans in order to make interchange improvements.</p> <p>Policy BD 4.2 Through the project and CEQA processes improve the nearby street system for the Central Avenue interchange improvement, especially an over-crossing of I-15 at Riverside Drive and the intersections of Collier Avenue/Central Avenue, Riverside Drive/Collier Avenue, Dexter Avenue/Central Avenue, and Cambern Avenue/Central Avenue.</p> <p>Policy BD 4.3 Through the project and CEQA processes improve the nearby street system for the Nichols Road interchange improvement, especially the intersection of Collier Avenue/Nichols Road.</p> <p>Policy BD 4.4 Through the project and CEQA processes improve Riverside</p>

DISTRICT PLAN	DISTRICT PLAN GOALS, POLICIES AND IMPLEMENTATION PROGRAMS
	<p>Drive in accordance with the Circulation Element.</p> <p>Policy BD 4.5 Support the integration of enhanced streetscape features including landscaping, street furniture, lighting, and pedestrian/bikeway routes into the Business District’s roadway design.</p> <p>Policy BD 4.6 Encourage the creation of an environmentally sensitive and accessible pedestrian/bicycle trail along the Channel Walk Project</p> <p><u>Implementation Program</u> The City shall utilize the project development and CEQA review processes to require additional traffic studies where necessary to ensure the safety of roadways and trails, appropriate street widths and intersection configurations, for proposed development.</p> <p>Goal 5 Connect the pedestrian/bikeway corridors along the major roadways within the Business District to the Channel Walk project.</p> <p>Policy BD 5.1 Support the completion of the Channel Walk project</p> <p>Policy BD 5.2 Encourage expanded open space areas, bike lanes, and sidewalks along major corridors within the Business District.</p> <p><u>Implementation Program</u> Through the development review and CEQA processes, ensure that pedestrian and bikeway corridors are connected and access the Channel Walk project.</p>
Country Club Heights	<p>Goal 4 Provide a safe and comprehensive roadway network for vehicular, bicycle, and pedestrian traffic within the Country Club Heights District, with additional access points into/out of the area</p> <p>Policy CCH 4.1 Consider road cross-sections that are unique to the Country Club Heights District as necessary and used for local roadways in areas south of Riverside Drive to Chaney Street and the areas enclosed between Gunnerson and Riverside Drive.</p> <p>Policy CCH 4.2 Consider a new special roadway cross section for Lakeshore Drive between Riverside Drive and Chaney Street and locate intersections at Manning Street, Lawrence Way, and Wilson Way.</p> <p>Policy CCH 4.3 Consider a pedestrian sidewalk along Lakeshore Drive that integrates a multi-purpose trail along Lakeshore Drive.</p> <p>Policy CCH 4.4 Encourage a minimum sight-distance of 250 feet within the Country Club Heights District</p> <p>Policy CCH 4.5 Consider the roadway network to include one-way streets where ROW or buildable widths are limited.</p> <p>Policy CCH 4.6 Through the project and CEQA processes Integrate roadway and other public services infrastructure as development occurs to create efficient use of land.</p> <p>Policy CCH 4.7 Consider the feasibility of assuming control of the entire segment of State Route 74, located within the Country Club Heights District.</p>

Section 3.4 – Transportation and Circulation



DISTRICT PLAN	DISTRICT PLAN GOALS, POLICIES AND IMPLEMENTATION PROGRAMS
	<p><u>Implementation Program</u> The City shall utilize the development review and CEQA processes to study alternative designs for roadways in the Country Club Heights District that may provide safer streets, pedestrian walkways, and bikeways. Additionally, access points into and out of the District shall be reviewed and implemented where feasible.</p>
East Lake	<p>Goal 3 Enhance pedestrian circulation, particularly between higher density residential and commercial areas, and to active and passive recreational facilities. Develop a trail system that will join parks and recreational areas, schools, and commercial activity centers in the District and link to the surrounding community including the Ballpark District.</p> <p>Policy EL 3.1 Through the project and CEQA processes incorporate strong linkages to the surrounding activities including Diamond Stadium located in the neighboring Ballpark District into development design.</p> <p>Policy EL 3.2 Through the project and CEQA processes integrate and align future roadways with the built circulation infrastructure in order to provide for efficient use of land and traffic movement.</p> <p>Policy EL 3.3 Conduct necessary studies in coordination with Riverside County and Caltrans to make the Olive Street/I-15 undercrossing an Interchange to enhance circulation in the District.</p> <p><u>Implementation Program</u> The City shall utilize the development and CEQA review processes to ensure that pedestrian circulation and bikeways are enhanced and linked to the variety of land uses anticipated in this District. Require additional traffic studies if necessary to provide for efficient traffic infrastructure.</p>
Historic	<p>Goal 4 Consider a circulation system that allows pedestrian connectivity throughout the Historic District with an emphasis on access to public spaces, recreational areas, and major roadways; along with developing an efficient circulation pattern with roadway standards that provide for higher traffic volumes parking demands in appropriate areas while maintaining a friendly pedestrian environment.</p> <p>Policy HD 4.1 Continue efforts to complete the Channel Walk project.</p> <p>Policy HD 4.2 Contemplate the design new parking facilities as an integral feature in the overall design of the Historic District.</p> <p>Policy HD 4.3 In order to support pedestrian activity, mitigate traffic impacts to LOS E during peak hours.</p> <p>Policy HD 4.4 Traffic signals, if warranted, shall be appropriately designed for the downtown landscape.</p> <p>Policy HD 4.5 The intersection of Graham Avenue and Main Street requires signalization according to the General Plan Traffic Study. Monitor the intersection and when the LOS falls below E, the City will prepare for signal installation.</p>
Lake Edge	<p>Goal 4 Enhance primary circulation routes, points of entry, key intersections, and</p>

DISTRICT PLAN	DISTRICT PLAN GOALS, POLICIES AND IMPLEMENTATION PROGRAMS
	<p>the Lake Edge Parkway by improving public access opportunities to the lake and Lake Edge.</p> <p>Policy LE 4.1 Consider the possibility of assuming control of the entire segment of State Route 74 within the Lake Edge District.</p> <p>Policy LE 4.2 Encourage enhanced and unifying streetscapes, road signage, and other design features along Lakeshore Drive. Entry points should be provided from each of the adjacent districts to the Lake Edge District.</p> <p>Policy LE 4.3 Through the project and CEQA processes main intersections along Grand Avenue at Riverside Drive and Ortega Highway should be improved in order to reduce congestion and delay. Full improvement may impact the existing development on the southeast corner.</p> <p>Policy LE 4.4 Through the project and CEQA processes widen Riverside Drive to the full width as detailed in the General Plan when the traffic volume justifies.</p> <p>Policy LE 4.5 Through the project and CEQA processes apply the new special roadway cross section (Fig 2-2) for Lakeshore Drive between Manning Street and Chaney Street and locate intersections at Manning Street, Lawrence Way, and Wilson Way.</p>
Lake Elsinore Hills	<p>Goal 4 Encourage Maintain and enhance an adequate multi-modal transportation system including bus routes, bicycle lanes, hiking trails, and pedestrian oriented streets that provides adequate accessibility within the Lake Elsinore Hills District and to neighboring areas and roadways by establishing design standards that ensure a high quality circulation system throughout the Lake Elsinore Hills District that incorporates the existing topography.</p> <p>Policy LEH 4.1 Through the project and CEQA processes construct additional east/west roadways providing access from Interstate-15 to the eastern areas of the Lake Elsinore Hills District where recommended by traffic studies.</p> <p>Policy LEH 4.2 Consider the development of a strategic plan with the City of Wildomar to ensure that Lost Road northeast of Grape Street to the existing specific plan street is constructed to a four-lane roadway.</p> <p>Policy LEH 4.3 Support completion of Canyon Estates Drive to Camino del Norte at Main Street and for Camino del Norte to continue to Cambern Avenue to finish the connection to State Route 74.</p> <p>Policy LEH 4.4 Through the project and CEQA processes complete improvements to Rosetta Canyon Road/Elsinore Hills Road from Camino del Norte to State Route 74 in order to provide additional access from one side of the Lake Elsinore Hills District to the other side.</p> <p>Policy LEH 4.5 Through the project and CEQA processes the City shall continue to pursue funding for improvements to both Central Avenue and Railroad Canyon Road, which will carry substantial future traffic volumes.</p> <p>Policy LEH 4.6 Through the project and CEQA processes continue to plan for the</p>

Section 3.4 – Transportation and Circulation



DISTRICT PLAN	DISTRICT PLAN GOALS, POLICIES AND IMPLEMENTATION PROGRAMS
	design and construction of the La Strada Road connection from Summerhill Drive to Camino del Norte.
Lake View	<p>Goal 4 Support the enhancement of Lincoln Street as the main linkage between the northwestern areas of the Lake View District and recreational facilities located southeast of Riverside Drive; enhance Riverside Drive as a mixed use corridor connecting the western and eastern areas of the city; ensure a high quality design of the circulation system that adds to the character of the Lake View District; and enhance Grand Avenue as another main linkage, connecting to I-15 via Lake Street.</p> <p>Policy LV 4.1 Designate Lincoln Street as the main access route connecting the Lake View District’s northwestern areas to the recreational facilities on the north side of the lake.</p> <p>Policy LV 4.2 Designate Grand Avenue as the main access route connecting the Lake View District to the I-15 corridor via Lake Street and State Route 74.</p> <p>Policy LV 4.3 Designate Riverside Drive/State Route 74 as the main access route through the Lake View District connecting the western areas to the eastern and southeastern areas of the City.</p> <p>Policy LV 4.4 Encourage the incorporation of traffic-calming measures such as additional trees and medians within Machado Street and Lincoln Street, to reduce traffic speeds in areas within close proximity to public/institutional facilities and low-density residential areas along this roadway, and within Riverside Drive, to enhance the visual character and walkability of the corridor.</p> <p>Policy LV 4.5 Continue coordination of improvements and/or maintenance efforts for Machado Street with the Riverside County Transportation and Land Management Agency.</p> <p>Goal 5 Support a revitalized Riverside Drive and Lakeshore Drive that are consistent with the mixed use corridor’s urban design character.</p> <p>Policy LV 5.1 Encourage a safe and comprehensive roadway network for vehicular, bicycle, and pedestrian traffic within the Lake View District.</p> <p>Policy LV 5.2 Through the project and CEQA processes improve traffic circulation and landscaping along Riverside Drive and Lakeshore Drive for both vehicular and pedestrian traffic.</p> <p>Policy LV 5.3 Encourage the installation and provision of pedestrian connections to areas south and southeast of Riverside Drive and north and northwest of the lake.</p> <p>Policy LV 5.4 Consider ownership of portions of State Highway 74 from the State of California.</p>
North Peak	Goal 3 Develop a circulation system with adequate access to all areas within the amended specific plan that minimizes adverse impacts to sensitive land uses and environmental areas.

DISTRICT PLAN	DISTRICT PLAN GOALS, POLICIES AND IMPLEMENTATION PROGRAMS
	<p>Policy NP 3.1 Through the project and CEQA processes improve of Nichols Road/El Toro Road as the primary access route to serve the northern area of the North -Peak District.</p>
Riverview	<p>Goal 3 Through the project and CEQA processes provide a safe and comprehensive roadway network for vehicular, bicycle, pedestrian, and bus traffic throughout the Riverview District and adjacent districts.</p> <p>Policy RV 3.1 Through the project and CEQA processes improve the visual aspects of the roadways through enhanced landscaping and community identification features.</p> <p>Policy RV 3.2 Lakeshore Drive should be designated as a scenic roadway with unifying streetscape features, road signs, and other design elements which should be encouraged to be constructed the length of the Riverview District boundaries.</p> <p>Policy RV 3.3 Through the project and CEQA processes roadways, transit, and pedestrian routes shall be improved in order to accommodate new development and greater accessibility throughout the Riverview District as recommended by traffic studies.</p>
Lake View Sphere	<p>Goal 4 Support a multi-modal transportation system with linkages to neighboring residential, recreational, and open space areas within the Lake View, Lake Edge, and Lakeland Village Districts and the Cleveland National Forest.</p> <p>Policy LVS 4.1 Through the project and CEQA processes create pedestrian/hiking trails between the northern, western, and southern areas of the Lake View Sphere District to nearby open space areas and the Cleveland National Forest.</p> <p>Policy LVS 4.2 Consider the widening of Grand Avenue to include a median, bike lanes, curbs, gutter, sidewalks, and additional bus stops.</p> <p>Policy LVS 4.4 Consider a pedestrian/bicycle linkage between the residential communities in proximity to Grand Avenue and the mixed-use commercial corridor of Riverside Drive, to the recreational areas along the edges of the lake, and to adjacent residential communities within the Lake View District and the Lakeland Village District.</p>
Lakeland Village Sphere	<p>Goal 4 Support a multi-modal transportation system that provides enhanced access to neighboring residential, recreational, and open space areas within the Lake View Sphere District, East Lake District, and the Cleveland National Forest.</p> <p>Policy LLVS 4.1 Encourage the provision of a safe and comprehensive roadway network for vehicular, bicycle, pedestrian, and public transportation throughout the Lakeland Village Sphere District.</p> <p>Policy LLVS 4.2 Encourage strong and attractive circulation routes between the Lakeland Village Sphere District’s neighborhoods, the lake, Grand Avenue, and open space and recreational areas.</p> <p>Policy LLVS 4.3 Consider designating Grand Avenue as a scenic roadway. The</p>

Section 3.4 – Transportation and Circulation



DISTRICT PLAN	DISTRICT PLAN GOALS, POLICIES AND IMPLEMENTATION PROGRAMS
	<p>City shall support Grand Avenue Beautification Committee efforts to establish streetscape plans.</p> <p>Policy LLVS 4.4 Support the revitalization of Grand Avenue as the most significant roadway in the Lakeland Village Sphere District.</p> <p>Policy LLVS 4.5 Encourage traffic calming measures at intersections within proximity of the higher density and residential mixed-use areas along Grand Avenue when recommended by traffic studies.</p> <p>Policy LLVS 4.6 Through the project and CEQA processes construct a series of safe pedestrian routes to connect the neighborhoods east and west of Grand Avenue to the mixed-use corridor along the roadway, the lake’s recreational facilities, open space areas, and the Cleveland National Forest.</p>
North Central Sphere	<p>Goal 3 Support a multi-modal transportation system with enhanced access to neighboring residential, recreational, and open space areas within the North Peak District and the Lake Elsinore Hills District as well as the commercial and industrial areas within the adjacent Business District.</p> <p>Policy NCS 3.1 Encourage the creation of pedestrian/hiking trails throughout the North Central Sphere District.</p> <p>Policy NCS 3.2 Consider the improvements of roadway connections in the North Central Sphere District.</p> <p>Policy NCS 3.3 Through the project and CEQA processes connect hillside residential portions in the northern section of the North Central Sphere District in the north to the southern sections of the District.</p>
Northwest Sphere	<p>Goal 3 Support a multi-modal transportation system with links to the Alberhill District and neighboring commercial, residential, recreational, and open space areas.</p> <p>Policy NWS 3.2 Through the project and CEQA processes incorporate access from major roads, the freeway, and existing residential communities to new development in the south and east portions of the Northwest Sphere District and in Alberhill to the east.</p> <p>Policy NWS 3.3 Through the project and CEQA processes establish pedestrian, bicycle, and roadway connections between the residential communities within the Northwest Sphere District and adjacent residential communities of the Alberhill District.</p> <p>Policy NWS 3.4 Consider the design and the improvement of access points to I-15.</p>

### 3.4.5 SIGNIFICANCE THRESHOLDS

The City of Lake Elsinore has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. However, Appendix G of the State CEQA Guidelines indicates that impacts to transportation and circulation may be considered potentially significant if the project would:

- conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).
- result in inadequate emergency access.
- conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

### 3.4.6 IMPACT ANALYSIS

#### METHODOLOGY

##### Definition of Deficiency

The City, County of Riverside, and Caltrans use different standards to define intersection deficiency. The majority of the study intersections are located within the City (and are thus subject to City criteria for intersection deficiency); four intersections are in the County of Riverside (subject to County criteria). Twelve intersections located on SR 74 have been evaluated based on Caltrans' LOS criteria.

The City, pursuant to its 1990 General Plan, requires that peak hour intersection operations be at LOS "D" or better to be considered acceptable. Therefore, City intersections operating at LOS "E" or "F" would be considered deficient. Notwithstanding the foregoing rule, however, the proposed General Plan Update proposes to use a different policy for determining deficiency. The Chapter 2.0 (Community Form) of the proposed GPU states the following:

The City of Lake Elsinore, in general, requires that peak-hour intersections operate at LOS “D” or better to be considered acceptable. Therefore, any City intersection operating at LOS “E” or LOS “F” will be considered deficient. However, LOS “E” will be considered acceptable in both the Main Street Overlay area and the Ballpark District Planning Districts in an effort to increase activity and revitalize these areas. Any intersection operating at LOS “F” will be considered deficient.

The Riverside County General Plan established, as a countywide target, a minimum LOS “C” on all County-maintained roads and conventional state highways. As an exception, LOS “D” may be allowed in Community Development areas, at intersections with any combination of Secondary Highways, Major Highways, Arterials, Urban Arterials, Expressways, conventional state highways, or freeway ramp intersections. LOS “E” may be allowed in designated community centers to the extent that it would support transit-oriented development and walkable communities.

Caltrans defines LOS “D” with delay less than 45 seconds per vehicle (mid-point of LOS “D”) at signalized intersections to be acceptable; any delay longer than this is deficient.

### **Travel Forecast Procedures**

The Western Riverside Subarea Applications Traffic Model (WRSATM), a focused RCIP model application, has been utilized to generate the future traffic volumes for this project. WRSATM is a subregional traffic model which is currently maintained by Urban Crossroads, Inc. and has been used for long range planning for other cities in the region such as the Eagle Valley study area, the Hemet/San Jacinto study area, the Ramono Mobility Group study area, and the Toscana Study area within Riverside County. The procedures of the WRSATM have been intensively updated in the course of the preparation of the Traffic Study (Appendix D) utilized in this PEIR in order to reflect the most current model data for the City of Lake Elsinore.

The Lake Elsinore Traffic Model (LETM), originally developed for the City’s fee program, has been updated by Urban Crossroads, Inc. to assist many traffic studies within the City. The LETM is not consistent with the RCIP model, which is critical to obtaining regional funding for roadway improvements. Extensive efforts have to be made to correct inconsistencies between LETM and RCIP models.

The Traffic Analysis Zone (TAZ) structure for the City has been refined to reflect more detailed land use distributions, and to allow better traffic loading onto the roadway network. The updated (refined) TAZ structure is shown on **Figure 3.4-13, City of Lake Elsinore Traffic Analysis Zones (TAZ)**. A total of 279 TAZs are included in the City planning area. The refined Lake Elsinore TAZ structure is a subset of the RCIP model TAZ and Lake Elsinore TAZ structure can be aggregated to the RCIP TAZ boundaries.



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Highway networks such as functional classification and lane configurations for the existing and the future conditions have been thoroughly reviewed and updated for the models. The TAZ loading points and centroid connector locations have been modified based on the actual local road structure.

The WRSATM is a Tranplan/Viper and TP+ (Transportation Planning Plus) based multi-procedure forecasting tool. The forecasting procedure is based on the traditional forecasting procedure that includes:

- Trip Generation
- Trip Distribution
- Traffic Assignment

The WRSATM is not intended to deal with issues related to mode choice, and as such includes no explicit mode choice step in the forecasting process. Trip generation may be conservative in areas where above average transit service is provided, or where the mix of urban land uses has been developed in conjunction with pedestrian facilities to reduce dependence on the automobile. The WRSATM implicitly relies on the regional travel demand tool and on the data obtained from this tool and included in the WRSATM to account for regional mode choice characteristics.

### **Traffic Forecast Refinement Methodology**

Traffic conditions are evaluated in this report for existing conditions and three future horizon years. The WRSATM model, modified for the City of Lake Elsinore to support the GPU process, was used to predict Horizon Year (2030) traffic volumes in terms of weekday AM and PM peak hours of traffic. The analysis uses existing baseline traffic conditions based on actual traffic counts by Urban Crossroads, Inc.

The future peak hour approach and departure volumes obtained from the traffic model are entered into a spreadsheet program consistent with the National Cooperative Highway Research Program (NCHRP) Report 255, along with initial estimates of turning movement proportions. A linear programming algorithm is used to calculate individual turning movements which match the known directional roadway segment forecast volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg. The existing traffic volume serves as the starting point for the refinement process, and also provides important insight into the travel patterns and the relationship between peak hour and daily traffic conditions. The initial turning movement proportions are estimated based upon the relationship of each approach leg's forecast traffic volume to the other legs forecast volumes at the intersection. The final forecasted traffic volumes have also been examined against the interim year traffic volumes provided in numerous traffic studies by Urban Crossroads, Inc. to ensure there is no negative growth from interim year to General Plan conditions. Such studies include Ramsgate Specific Plan Traffic Study, the Village Traffic Impact Study, Back Basin Specific Plan Traffic Study, and I-15/SR 74 Interchange Project Report Traffic Impact Study.

Finally, traffic volume flow conservation check and possible manual adjustments have been conducted to ensure the reasonableness of traffic flow, especially at the interchange areas.

### **Traffic Operations Analysis**

The current technical guide to the evaluation of traffic operations is the HCM. The HCM defines level of service (LOS) as a qualitative measure which describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

The definitions of LOS for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are the following.

- LOS “A” represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
- LOS “B” is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
- LOS “C” is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.
- LOS “D” represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
- LOS “E” represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
- LOS “F” is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.

The definitions of LOS for interrupted traffic flow (traffic flow restrained by the existence of traffic signals and other traffic control devices along the roadway) differ slightly depending on the type of traffic control.

The HCM methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control. The LOS determined in this study are calculated using the HCM methodology.

- For signalized intersections, average total delay per vehicle for the overall intersection is used to determine LOS. Levels of service at signalized study intersections have been evaluated using an HCM intersection analysis program.
- For all way stop (AWS) controlled intersections, the ability of vehicles to enter the intersection is not controlled by the occurrence of gaps in the traffic flow along the major street. The AWS controlled intersection has been evaluated using the HCM methodology for this type of multi-way stop controlled intersection configuration. The LOS for this type of intersection analysis is also based on average total delay per vehicle for the overall intersection.
- The study area intersections which are stop sign controlled with stop-control on the minor street only, have been analyzed using the two-way stop-controlled unsignalized intersection analysis methodology of the HCM. For these intersections, the calculation of LOS is dependent on the occurrence of gaps occurring in the traffic flow of the main street. Using data collected describing the intersection configuration and traffic volumes at these locations to calculate average intersection delay, the LOS has been calculated. The LOS criteria for this type of intersection analysis is based on total delay per vehicle for the worst minor street movement(s).

The LOS are defined in terms of average delay for the intersection analysis methodology for this traffic study as shown in **Table 3.4-6, Level of Service Standards**.

**Table 3.4-6, Level of Service Standards**

LEVEL OF SERVICE	AVERAGE TOTAL DELAY PER VEHICLE (SECONDS)	
	SIGNALIZED	UNSIGNALIZED
A	0 to 10.00	0 to 10.00
B	10.01 to 20.00	10.01 to 15.00
C	20.01 to 35.00	15.01 to 25.00
D	35.01 to 55.00	25.01 to 35.00
E	55.01 to 80.00	35.01 to 50.00
F	80.01 and up	50.01 and up

The signalized intersections are considered deficient (LOS “F”) if the overall intersection critical volume to capacity (V/C) ratio equals or exceeds 1.0, even if the LOS defined by the delay value is below the defined LOS standard. The V/C ratio is defined as the critical volumes divided by the intersection capacity. A V/C ratio greater than 1.0 implies an infinite queue.

The analysis has been performed in a manner that is consistent with the standard TIA methodology for Riverside County. Per Riverside County’s traffic study guidelines, the lost

time for signalized intersection analysis is 4 seconds per phase. A saturation flow rate of 1,900 passenger cars/hour/lane is applied. Seven seconds of minimum green are used in areas of light pedestrian activity.

**Threshold: Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.**

**Threshold: Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.**

#### *Analysis*

The results of the Traffic Study (Urban Crossroads 2011) are described below. The Traffic Study is located in Appendix D of this PEIR. The Land Use Plan General Plan Circulation Element Roadway Plan is shown in **Figure 3.4-14, City of Lake Elsinore Recommended Circulation Roadway System**. Roadway cross-sections are shown in **Figure 3.4-15, Recommended Roadway Cross-Sections**. The analysis conducted for the traffic study addresses the land use designations proposed as a part of the GPU.

#### *Results of Traffic Analysis*

Attachment C to the 2011 Traffic Study includes all the worksheets for the intersection turning movement volume refinement process. Attachment D to the 2011 Traffic Study includes the final peak hour to ADT ratio worksheets for each study intersection. The refined future daily traffic volumes for Land Use Plan conditions are presented on **Figure 3.4-16, General Plan Average Daily Traffic (ADT)**. For some of the segments, which are not part of the analysis area and also have no available existing volumes, the Land Use Plan ADT volumes are estimated based on the raw model forecast data and the flow conservation check with the nearby roadway segments. **Figure 3.4-17, General Plan AM Peak Hour Intersection Volumes** and **Figure 3.4-18, General Plan PM Peak Hour Intersection Volumes** illustrate the AM and PM peak hour intersection volumes for the Land Use Plan conditions, respectively. The highest daily volume on an arterial roadway occurs along Lake Street, which is projected to carry volumes as high as 72,000 VPD. This occurs between the I-5 southbound ramps and Road “A”. Other arterial roadways projected to carry substantial traffic volumes include the following:

- Railroad Canyon Road (68,000 VPD)
- Riverside Drive (65,000 VPD)
- Grand Avenue (67,000 VPD)
- Nichols Road (61,000 VPD)

- Central Avenue (60,000 VPD)

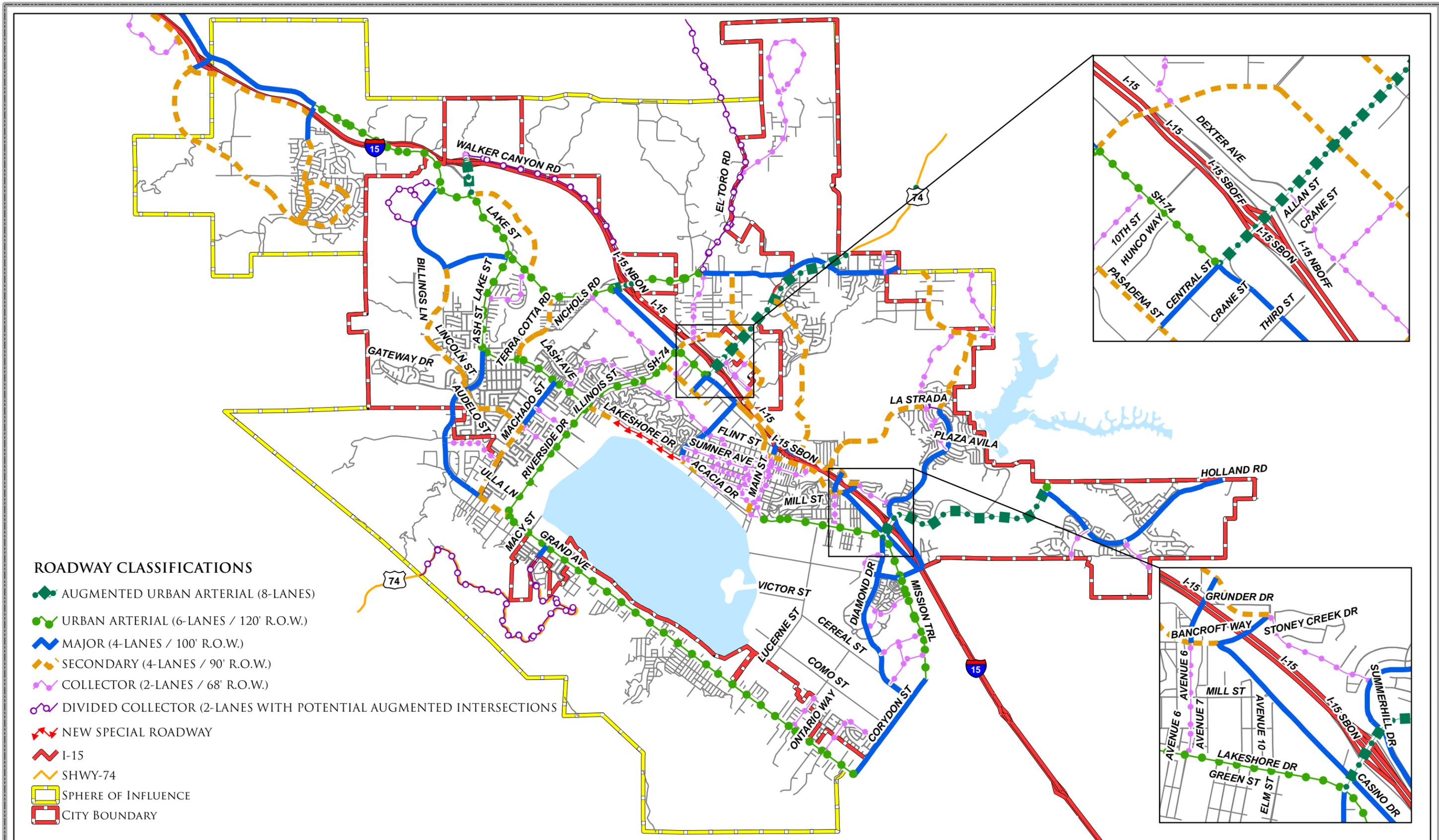
#### **Future Peak Hour Conditions - General Plan Build Conditions**

Based on coordination with City staff, 20 key study intersections were evaluated in the Traffic Study (Urban Crossroads 2011). **Figure 3.4-19, Intersection Analysis Locations - General Plan Buildout Conditions**, illustrates the locations of the analyzed intersections. The intersection operations analysis for the Land Use Plan scenario with existing geometric conditions is summarized in **Table 3.4-7, Intersection Analysis Summary - General Plan Buildout Conditions**. The peak hour intersection post processing worksheets are included in Attachment C of the Traffic Study. As shown in **Table 3.4-7**, most of the required through lane improvements are consistent with the initial modeled roadway classifications and corresponding cross-sections. Some intersections may require spot widening to accommodate the necessary turn lanes. Based on the peak hour intersection analysis, the segments of Railroad Canyon Road/Diamond Drive from Canyon Hills Drive to Auto Center Drive/Mission Trail may require four through lanes and should be upgraded to an Augmented Urban Arterial classification.

The intersection of Old Franklin Street at Auto Center Drive has been evaluated with respect to the recommended intersection orientation. Based on the projected traffic volumes, the Traffic Study recommends that this intersection be configured as a through street parallel to I-15, with the overcrossing of the freeway forming a “T” intersection.



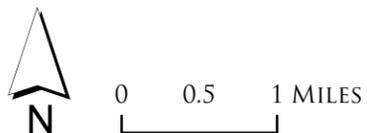
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**ROADWAY CLASSIFICATIONS**

- AUGMENTED URBAN ARTERIAL (8-LANES)
- URBAN ARTERIAL (6-LANES / 120' R.O.W.)
- MAJOR (4-LANES / 100' R.O.W.)
- SECONDARY (4-LANES / 90' R.O.W.)
- COLLECTOR (2-LANES / 68' R.O.W.)
- DIVIDED COLLECTOR (2-LANES WITH POTENTIAL AUGMENTED INTERSECTIONS)
- NEW SPECIAL ROADWAY
- I-15
- SHWY-74
- SPHERE OF INFLUENCE
- CITY BOUNDARY

SOURCES: CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE

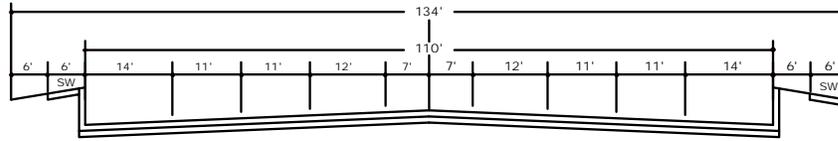


CITY OF LAKE ELSINORE  
 RECOMMENDED CIRCULATION ROADWAY SYSTEM  
 FIGURE 3.4-14

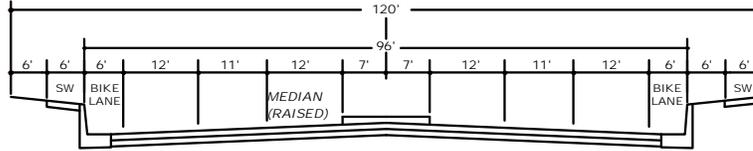


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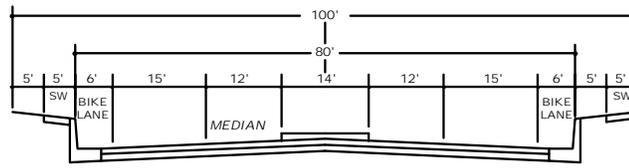
# CITY OF LAKE ELSINORE PROPOSED LAND USE PLAN SCENARIO RECOMMENDED ROADWAY CROSS-SECTIONS



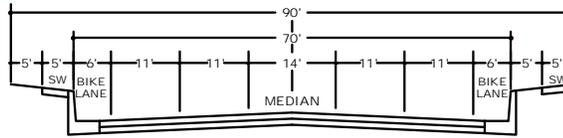
AUGMENTED URBAN ARTERIAL - STATE HIGHWAY  
(8-LANE)



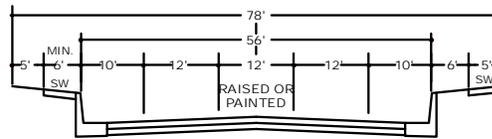
URBAN ARTERIAL HIGHWAY  
(6-LANE)



MAJOR HIGHWAY  
(4-LANE)

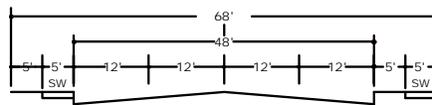


SECONDARY HIGHWAY  
(4-LANE)

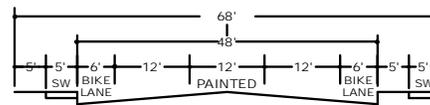


DIVIDED COLLECTOR  
(2-LANE)

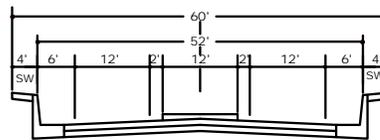
BIKES USE SHOULDER



COLLECTOR HIGHWAY  
(4-LANE)



COLLECTOR HIGHWAY  
(2-LANE)



NEW SPECIAL ROADWAY  
(2-LANE)

SHOULDER/BIKE LANE

(PROPOSED FOR LAKESHORE DRIVE IN THE COUNTRY CLUB HEIGHT DISTRICT)

\* BIKE LANES ARE NOT MANDATORY UNLESS SHOWN ON THE BIKEWAY CIRCULATION ELEMENT PLAN  
PRECISE SIDEWALK LOCATION SUBJECT TO CITY ENGINEER APPROVAL  
NOTE: CHECK THE DISTRICT PLAN OF YOUR AREA FOR ANY REQUIRED SPECIAL ROADWAY CROSS-SECTION,  
ESPECIALLY THE LAKE EDGE AND COUNTRY CLUB HEIGHTS DISTRICT PLANS.  
STRIPPING OF COLLECTOR HIGHWAY AS DIRECTED BY CITY ENGINEER.

DATA SOURCE: URBAN CROSSROADS

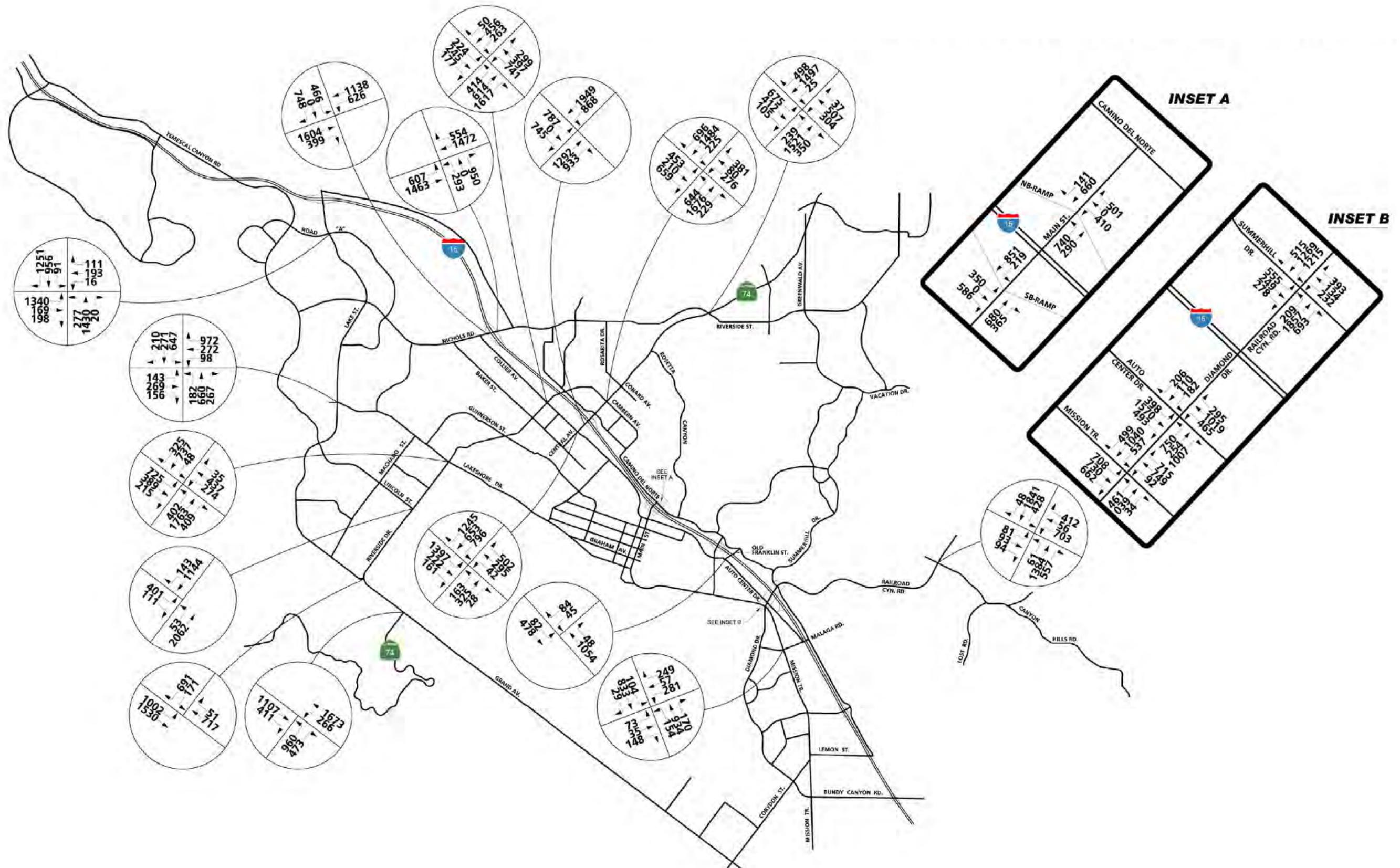




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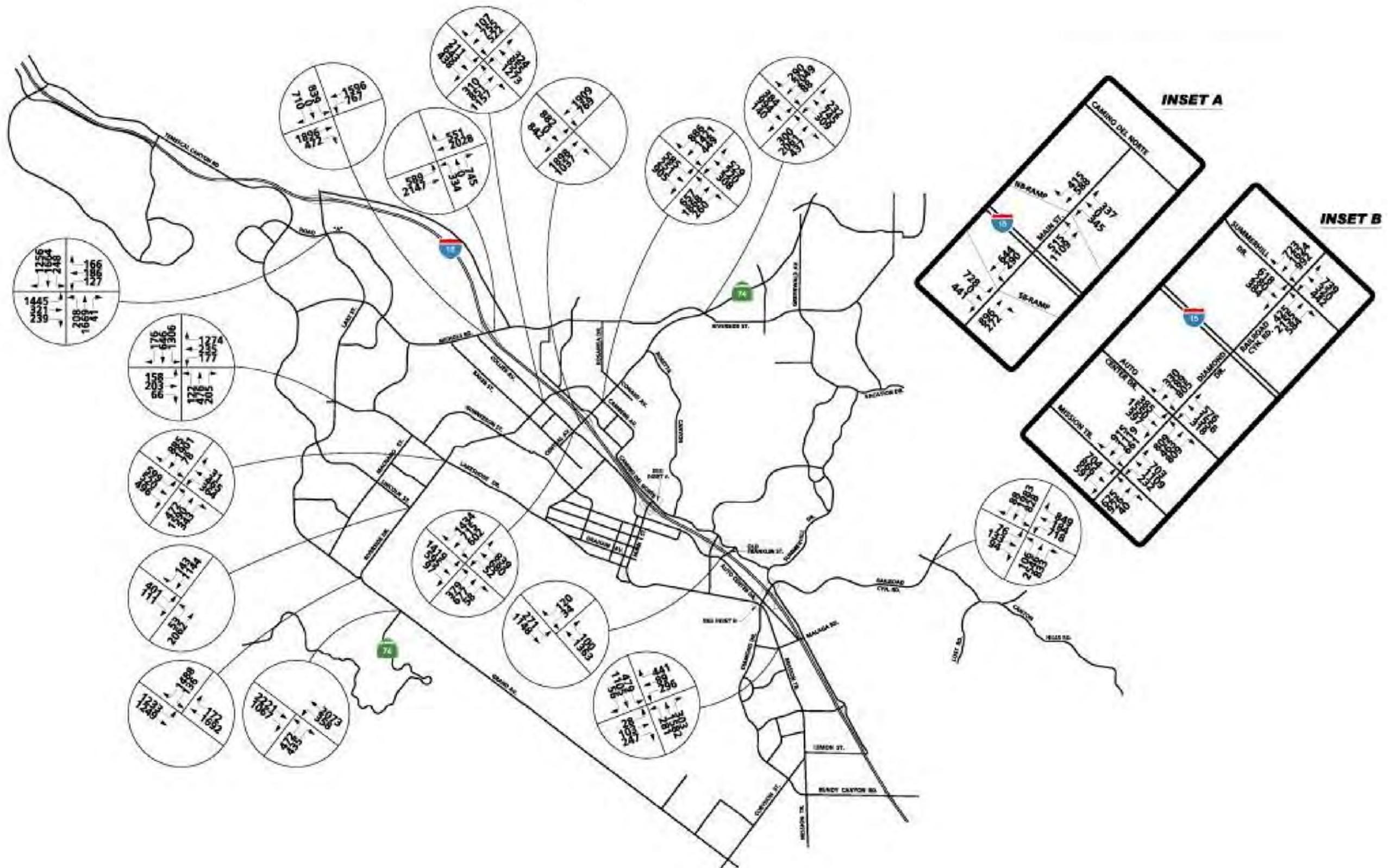


SOURCES: URBAN CROSSROADS

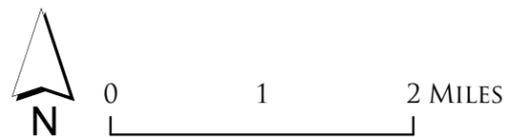


GENERAL PLAN  
AM PEAK HOUR INTERSECTIONS VOLUMES  
FIGURE 3.4-17

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SOURCES: CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE



GENERAL PLAN  
PM PEAK HOUR INTERSECTION VOLUMES  
FIGURE 3.4-18



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**Table 3.4-7, Intersection Analysis Summary - General Plan Buildout Conditions**

INTERSECTION		TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												AVERAGE DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE		LOS CRITERIA
No.	NAME		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
3	Lake St. (NS) at: PacClay Theme Rd. A - Alberhill Ridge Rd. (EW)																		
	- Existing Geometry	CSS	0	1	0	0	1	1	0	1	0	0	0	0					
	- Proposed Land Use Plan	TS	<u>2</u>	<u>4</u>	0	<u>2</u>	<u>3</u>	<u>1&gt;&gt;</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1&gt;</u>	41.3	52.8	D	D	
4	Lake St. (NS) at: Lakeshore Dr. (EW)																		
	- Existing Geometry	TS	1	2	1	2	2	1	0	2	0	1	1	2>					
	- Proposed Land Use Plan	TS	1	2	1	2	2	1	0	2	0	1	1	1>>	39.2	42.3	D	D	
5	Lakeshore Dr. (NS) at: Riverside Dr. (EW)																		
	- Existing Geometry	TS	1	2	0	1	2	1	1	2	1	1	1	1					
	- Proposed Land Use Plan	TS	<u>2</u>	<u>3</u>	0	<u>2</u>	2	<u>1&gt;</u>	<u>2</u>	<u>3</u>	0	1	<u>2.5</u>	<u>1.5</u>	40.5	49.4	D	D	
7	I-15 NB Ramps (NS) at: Nichols St. (EW)																		
	- Existing Geometry	CSS	1	0	1	0	0	0	1	1	0	0	1	0					
	- Proposed Land Use Plan	TS	1	0	<u>1&gt;&gt;</u>	0	0	0	<u>2</u>	<u>3</u>	0	0	<u>3</u>	<u>1&gt;&gt;</u>	25.5	26.5	C	C	
10	I-15 SB Ramps (NS) at: Nichols St. (EW)																		

Section 3.4 – Transportation and Circulation



INTERSECTION		TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												AVERAGE DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE		LOS CRITERIA
NO.	NAME		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
	- Existing Geometry	CSS	0	0	0	1	0	1	0	1	1>>	1	1	0					D
	- Proposed Land Use Plan	<u>TS</u>	0	0	0	<u>2</u>	0	<u>2</u>	0	<u>3</u>	1>>	<u>2</u>	<u>3</u>	0	34.5	39.9	C	D	
11	I-15 SB Ramps (NS) at: Central Ave. (EW)																		
	- Existing Geometry	TS	0	0	0	1	0	1	0	2	0	1	2	0					D
	- Proposed Land Use Plan	TS	0	0	0	<u>2</u>	0	<u>2</u>	0	<u>3</u>	<u>2</u>	<u>2</u>	<u>3</u>	0	27.1	33.9	C	C	
13	Grand Ave. (NS) at: Grand Ave.-Riverside Drive (EW)																		
	- Existing Geometry	CSS	0	0	0	1	0	1	1	1	0	0	1	1					D
	- Proposed Land Use Plan	<u>TS</u>	0	0	0	1	0	<u>1&gt;&gt;</u>	<u>2</u>	<u>3</u>	0	0	<u>3</u>	0	20.5	30.0	C	C	
14	Grand Ave. (NS) at: Ortega Hwy./SR-74 (EW)																		
	- Existing Geometry	AWS	0	1	0	0	1	1>>	1	0	1>>	0	0	0					D
	- Proposed Land Use Plan	<u>TS</u>	<u>2</u>	<u>3</u>	0	0	<u>3</u>	1>>	<u>2</u>	0	1>>	0	0	0	34.8	20.4	C	C	
15	Collier Ave. (NS) at: Riverside Dr. (EW)																		
	- Existing Geometry	TS	1	1	0	1	1	1	0.5	0.5	1	0	1	0					D
	- Proposed Land Use Plan	TS	<u>3</u>	<u>2</u>	0	<u>2</u>	<u>3</u>	<u>1&gt;</u>	<u>2</u>	<u>2</u>	<u>2&gt;</u>	<u>2</u>	<u>3</u>	0	33.5	44.9	C	D	
16	Collier Ave. (NS) at																		

INTERSECTION		TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												AVERAGE DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE		LOS CRITERIA
No.	NAME		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
	Central Ave. (EW)																		
	- Existing Geometry	TS	1	1	1	2	2	1	2	2	0	2	1	>					
	- Proposed Land Use Plan	TS	1	<u>2</u>	<u>2</u> >	<u>2.5</u>	<u>1.5</u>	1	2	<u>3</u>	0	2	<u>2</u>	>	27.2	42.5	C	D	
17	Riverside St. (NS) at: SR-74 (EW)																		
	- Existing Geometry	CSS	1	0	1	0	0	0	0	2	0	1	2	0					
	- Proposed Land Use Plan	<u>TS</u>	<u>2</u>	<u>2</u>	1	<u>2</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>4</u>	<u>1</u>	1	<u>4</u>	<u>1</u>	32.7	37.6	C	D	
20	Cambern Ave. (NS) at: SR-74 (EW)																		
	- Existing Geometry	TS	1	1	0	0	1	1	2	2	0	1	1	1					
	- Proposed Land Use Plan	TS	1	1	<u>2</u>	<u>2</u>	1	<u>2</u> >	2	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>2</u> >	37.7	53.0	D	D	
25	Main St. (NS) at: I-15 NB Ramps (EW)																		
	- Existing Geometry	CSS	1	1	0	0	1	0	0	0	0	1	0	1					
	- Proposed Land Use Plan	<u>TS</u>	<u>1.5</u>	<u>1.5</u>	0	0	<u>2</u>	<u>1</u>	0	0	0	1	0	1	40.8	44.1	D	D	
26	Main St. (NS) at: I-15 SB Ramps (EW)																		
	- Existing Geometry	CSS	0	1	1	1	1	0	1	0	1	0	0	0					
	- Proposed Land Use Plan	<u>TS</u>	0	<u>2</u>	1	1	<u>2</u>	0	1	0	1	0	0	0	34.9	42.4	C	D	
28	Old Franklin St. (NS) at:																		

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INTERSECTION		TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												AVERAGE DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE		LOS CRITERIA
NO.	NAME		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
	Auto Center Dr. (EW) - Existing Geometry	CSS	0	0	0	1	0	1	0	1	0	0	1	1					D
	- Proposed Land Use Plan	<u>TS</u>	0	0	0	1	0	1	<u>1</u>	<u>2</u>	0	0	<u>2</u>	0	12.3	18.1	B	B	
29	Summerhill Dr. - Grape St. (NS) at: Railroad Canyon Rd. (EW)																		
	- Existing Geometry	TS	2	2	1	1	1	1>	2	2	0	1	3	0					D
	- Proposed Land Use Plan	TS	2	2	<u>2&gt;</u>	<u>2</u>	1	<u>2&gt;</u>	<u>1.5</u>	<u>3.5</u>	<u>1&gt;</u>	<u>2.5</u>	<u>3.5</u>	<u>2&gt;</u>	45.7	54.2	D	D	
31	Railroad Canyon Rd. (NS) at: Canyon Hills Rd. (EW)																		
	- Existing Geometry	TS	0	3	1	1	3	0	0	0	0	2	0	1					D
	- Proposed Land Use Plan	TS	<u>1</u>	<u>4</u>	<u>1&gt;</u>	<u>2</u>	3	<u>1</u>	<u>1</u>	<u>2</u>	0	<u>2.5</u>	<u>1.5</u>	<u>2&gt;</u>	27.9	41.0	C	D	
33	Diamond Dr. (NS) at: Lakeshore Dr. - Mission Trail (EW)																		
	- Existing Geometry	TS	1	2	1	2	2	0	1	2	0	1	2	1					E
	- Proposed Land Use Plan	TS	<u>2</u>	<u>3</u>	1	2	<u>3</u>	<u>2&gt;</u>	<u>2</u>	3	<u>1&gt;</u>	1	<u>3</u>	<u>2&gt;</u>	35.6	46.1	D	D	
34	Mission Trail (NS) at: Malaga Rd. (EW)																		

INTERSECTION		TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												AVERAGE DELAY <sup>2</sup> (SEC)		LEVEL OF SERVICE		LOS CRITERIA
NO.	NAME		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
	- Existing Geometry	TS	1	2	0	1	2	0	1	1	1	1	2	0					E
	- Proposed Land Use Plan	TS	1	<u>3</u>	0	<u>2</u>	<u>3</u>	0	1	<u>2</u>	0	1	<u>2</u>	<u>1</u> >	36.4	51.2	D	D	
38	Auto Center Dr. – Casino Dr. (NS) at: Railroad Canyon Rd. (EW)																		
	- Existing Geometry	TS	1	2	0	1	2	0	1	3	0	2	2	0					D
	- Proposed Land Use Plan	TS	<u>2</u>	2	<u>2</u> >	<u>2</u>	2	<u>2</u>	<u>2</u>	3	<u>1</u> >	<u>2</u>	3	<u>1</u> >	35.7	49.9	D	D	

Source: 2011 Traffic Study (Urban Crossroads 2011), Table 6

<sup>1</sup> When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left ; T = Through; R = Right; >> = Free Right Turn; > = Right Turn Lane with Overlap Phase

**BOLD/UNDERLINE** = New (Additional) Improvements

<sup>2</sup> Delay and level of service calculated using the following analysis software: Traffix, Version 8.0 R1 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

<sup>3</sup> CSS = Cross Street Stop; TS = Traffic Signal

**Roadway Segment Capacity Review – General Plan Buildout Conditions**

Roadway segment capacities were also evaluated based on the projected daily traffic volumes for the proposed GPU Land Use Plan. **Table 3.4-8, Daily Traffic Volume Capacity Values**, obtained from the Riverside County Congestion Management Plan, shows the volume capacity values for the various types of roadway segments. The daily capacities have been developed primarily to ensure adequate peak hour traffic operations and account for factors including the typical peak hour to daily traffic volume relationships, availability of turning lanes at major (signalized) intersections, and effect of cross-street traffic on capacity at major (signalized) intersections. The methodology applied in the 2011 Traffic Study to evaluate future daily traffic conditions reflects the greater variability inherent in daily analysis by establishing a roadway capacity value, then defining traffic conditions in accordance with the criteria shown in **Table 3.4-9, Daily Level of Service Criteria**.

**Table 3.4-8, Daily Traffic Volume Capacity Values**

ROADWAY CLASSIFICATION	NUMBER OF LANES	MAXIMUM TWO-WAY TRAFFIC VOLUME (ADT)
		SERVICE LEVEL E
Collector	2	13,000
Divided Collector	2	18,000
Secondary	4	25,900
Major	4	34,100
Urban Arterial	6	53,900
Urban Arterial	8	71,800

Source: 2011 Traffic Study, Table 7

NOTES

1. All capacity figures are based on optimum conditions and are intended as guidelines for planning purposes only.
2. Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables as defined in the Riverside County Congestion Management Program.. Divided Collector interpolated.
3. Two-lane roadways designated as future arterials that conform to arterial design standards for vertical and horizontal alignment are analyzed as arterials.
4. Ramp capacity is given as a one-way traffic volume.

**Table 3.4-9, Daily Level of Service Criteria**

LEVEL OF SERVICE	DAILY LEVEL OF SERVICE CRITERIA	
	INDICATES	V/C RATIO RANGE
A	Acceptable	0 to 0.80
AC	Approaching Capacity	0.81 to 1.00
PEC	Potentially Exceeds Capacity	1.01 to 1.24
D	Deficient	>1.24

Source: 2011 Traffic Study (Urban Crossroads 2011)

The ranges shown in **Table 3.4-9** have been developed through review of the more detailed peak hour analysis results for this and other projects. The “Potentially Exceeds Capacity” category reflects a daily V/C (Volume to Capacity) in excess of 1.0, however the more detailed peak hour analysis indicates that acceptable peak hour traffic operations can typically be achieved by constructing additional turn lanes at key intersections, without widening the entire roadway segment to provide additional through lanes. The “Deficient” category reflects a potential need to upgrade a roadway to include additional through lanes.

**Table 3.4-10, Highway Link/Roadway Capacity Analysis - General Plan Buildout Conditions**, summarizes the proposed Land Use Plan scenario daily roadway segment V/C evaluation. The daily evaluation results suggest that the following roadways may operate at an unacceptable LOS:

- Temescal Canyon Road, between Horsethief Canyon Road and Road “A”
- Grand Avenue, from Machado Street to Riverside Drive
- Railroad Canyon Road, Canyon Hills Road to Summerhill Drive
- Corydon Street, from Palomar Street to Diamond Drive

The Temescal Canyon Road segments clearly exceed the daily capacity and an upgrade to an Urban Arterial is recommended. Similarly, the Railroad Canyon Road segment exceeds the daily capacity, and detailed peak hour intersection analysis suggests that Railroad Canyon Road / Diamond Drive between Canyon Hills Road and Lakeshore Drive / Mission Trail should be upgraded to an Augmented Urban Arterial to accommodate the traffic volumes anticipated under General Plan buildout conditions.

Grand Avenue and Corydon Street exceed their daily capacities by much less and are just within the “deficient” range that was defined previously. Urban Crossroads, Inc recommended that these roadway segments be monitored and identified as special study roadways in the

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General Plan Circulation Element. This recommendation is addressed in Policy 6.5 of the Circulation Section of the Community Form Chapter.

The recommended General Plan Circulation Element roadway classifications necessary to support the proposed Land Use Plan are depicted on **Figure 3.4-14**.

**Table 3.4-10, Highway Link/Roadway Capacity Analysis - General Plan Buildout Conditions**

ROADWAY	FROM:	TO:	CLASSIFICATION	LOS E. CAPACITY	TOTAL DAILY TRAFFIC VOLUMES	V/C	CAPACITY CALCULATION
Temescal Canyon Road	N of Indian Truck Trail	Indian Truck Trail	Major	34,100	19,000	0.56	Acceptable
	Indian Truck Trail	Horsethief Canyon Road	Major	34,100	31,000	0.91	Approaching Capacity
	Horsethief Canyon Rd	S of Horsethief Canyon Rd.	Major	34,100	50,000	1.47	<b>Deficient</b>
	N of Road "A"	Road "A"	Major	34,100	48,000	1.41	<b>Deficient</b>
	Road "A"	S of Road "A"	Major	34,100	32,000	0.94	Approaching Capacity
	Road "A"	Nichols Road	Major	34,100	27,000	0.79	Acceptable
	N of Nichols Road	Nichols Road	Major	34,100	30,000	0.88	Approaching Capacity
Lincoln Street	Nichols Road	S of Nichols Road	Secondary	25,900	26,000	1.00	Approaching Capacity
	N of Lake Street	Lake Street	Secondary	25,900	22,000	0.85	Approaching Capacity
	Lake Street	Machado Street	Secondary	25,900	8,000	0.31	Acceptable
	Machado Street	Riverside Drive	Collector	13,000	4,000	0.31	Acceptable
De Palma Road	N of Indian Truck Trail	Indian Truck Trail	Secondary	25,900	5,000	0.19	Acceptable
	Indian Truck Trail	S of Indian Truck Trail	Secondary	25,900	11,000	0.42	Acceptable
	N of Horsethief Canyon Rd	Horsethief Canyon Road	Secondary	25,900	3,000	0.12	Acceptable

ROADWAY	FROM:	TO:	CLASSIFICATION	LOS E. CAPACITY	TOTAL DAILY TRAFFIC VOLUMES	V/C	CAPACITY CALCULATION
Indian Truck Trail	De Palma Road	Horsethief Canyon Road	Secondary	25,900	3,000	0.12	Acceptable
Horsethief Canyon Road	De Palma Rd.	S of De Palma Rd	Major	34,100	38,000	1.11	Potentially Exceeds Capacity
	N of Mountain Rd	Mountain Rd	Secondary	25,900	26,000	1.00	Approaching Capacity
	Mountain Rd	Mountain Rd	Secondary	25,900	5,000	0.19	Acceptable
Mountain Road	Horsethief Canyon Rd.	E of Horsethief Canyon Rd	Secondary	25,900	22,000	0.85	Approaching Capacity
Road "A"	W of Temescal Canyon Rd	Temescal Canyon Rd	<del>Secondary</del> Divided Collector	<del>25,900</del> 18,000	10,000	<del>0.39</del> 0.56	Acceptable
	Temescal Canyon	Lake Street	Urban Arterial	53,900	45,000	0.83	Approaching Capacity
	Lake Street	Nichols Road	Secondary	25,900	14,000	0.54	Acceptable
Alberhill Ranch Rd.	Lake Street	Nichols Road	Collector	13,000	3,000	0.23	Acceptable
Lake Street	Walker Canyon Rd.	I-15 NB Ramps	Augmented Urban Arterial	71,800	29,000	0.40	Acceptable
	I-15 NB Ramps	I-15 SB Ramps	Augmented Urban Arterial	71,800	53,000	0.74	Acceptable
	I-15 SB Ramps	Road "A"	Augmented Urban Arterial	71,800	72,000	1.00	Approaching Capacity
	Road "A"	S of Road "A"	Urban Arterial	53,900	41,000	0.76	Acceptable
	N of Nichols Rd	Nichols Rd	Urban Arterial	53,900	47,000	0.87	Approaching Capacity
	Nichols Rd	Alberhill Ranch Rd	Urban Arterial	53,900	39,000	0.72	Acceptable
	Alberhill Ranch Rd	Lakeshore Dr.	Urban Arterial	53,900	43,000	0.80	Acceptable
Grand Avenue	Lakeshore Dr.	Lincoln St	Major	34,100	19,000	0.56	Acceptable
	Lincoln St	Alvarado St	Major	34,100	36,000	1.06	Potentially Exceeds Capacity

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ROADWAY	FROM:	TO:	CLASSIFICATION	LOS E. CAPACITY	TOTAL DAILY TRAFFIC VOLUMES	V/C	CAPACITY CALCULATION
	Alvarado St	Machado St	Major	34,100	30,000	0.88	Approaching Capacity
	Machado St	Riverside Dr	Secondary	25,900	33,000	1.27	<b>Deficient</b>
	Riverside Dr	SR-74/Ortega Highway	Urban Arterial	53,900	60,000	1.11	Potentially Exceeds Capacity
	SR-74/Ortega Highway	S of SR-74/Ortega Hwy	Urban Arterial	53,900	54,000	1.00	Approaching Capacity
	N of Stoneman St	Stoneman Street	Urban Arterial	53,900	67,000	1.24	Potentially Exceeds Capacity
Walker Canyon Rd	Lake Street	E of Lake Street	Divided Collector	18,000	18,000	1.00	Approaching Capacity
	N of Nichols Rd	Nichols Rd	Divided Collector	18,000	15,000	0.83	Approaching Capacity
Nichols Rd	Temescal Canyon	Lake Street	Major	34,100	16,000	0.47	Acceptable
	Lake St.	Road "A"/Alberhill Ranch Rd.	Urban Arterial	53,900	25,000	0.46	Acceptable
	Road "A"/Alberhill Ranch Rd.	Terra Cotta Rd	Urban Arterial	53,900	41,000	0.76	Acceptable
	Terra Cotta Rd	Baker St	Urban Arterial	53,900	47,000	0.87	Approaching Capacity
	Baker St	Collier Ave.	Urban Arterial	53,900	48,000	0.89	Approaching Capacity
	I-15 SB Ramps	I-15 NB Ramps	Augmented Urban Arterial	71,800	55,000	0.77	Acceptable
	I-15 NB Ramps	Walker Canyon Rd	Augmented Urban Arterial	71,800	61,000	0.85	Approaching Capacity
	Walker Canyon Rd	El Toro Rd.	Urban Arterial	53,900	58,000	1.08	Potentially Exceeds Capacity
	El Toro Rd.	11 <sup>th</sup> St/	Urban Arterial	53,900	37,000	0.69	Acceptable
	11 <sup>th</sup> St/	Rosarita Dr.	Major	34,100	40,000	1.17	Potentially Exceeds

ROADWAY	FROM:	TO:	CLASSIFICATION	LOS E. CAPACITY	TOTAL DAILY TRAFFIC VOLUMES	V/C	CAPACITY CALCULATION
							Capacity
	Rosarita Dr.	E of Rosarita Dr.	Major	34,100	40,000	1.17	Potentially Exceeds Capacity
	W of SR-74	SR-74	Major	34,100	33,000	0.97	Approaching Capacity
Riverside St.	SR-74	Steel Valley Rd	Major	34,100	25,000	0.73	Acceptable
Terra Cotta Rd	Nichols Rd	Lakeshore Dr.	Secondary	25,900	17,000	0.66	Acceptable
Lakeshore Drive	Lake Street	Terra Cotta Road	Urban Arterial	53,900	34,000	0.63	Acceptable
	Terra Cotta Road	Machado Street	Urban Arterial	53,900	39,000	0.72	Acceptable
	Machado Street	Gunnerson St	Urban Arterial	53,900	32,000	0.59	Acceptable
	Gunnerson St	Riverside Drive	Urban Arterial	53,900	30,000	0.56	Acceptable
	Riverside Drive	Chaney Street	Secondary	25,900	16,000	0.62	Acceptable
	Chaney St	Graham Ave.	Secondary	25,900	17,000	0.66	Acceptable
Limited St	Lakeshore Dr.	Langstaff St.	Collector	13,000	10,000	0.77	Acceptable
	Langstaff St.	Spring St.	Collector	13,000	14,000	1.08	Potentially Exceeds Capacity
	Spring St.	Main Street	Collector	13,000	3,000	0.23	Acceptable
Alvarado St.	Grand Ave.	Machado St.	Collector	13,000	3,000	0.23	Acceptable
Machado St.	Lakeshore Dr.	Joy St.	Major	34,100	15,000	0.44	Acceptable
	Joy St.	Lincoln St.	Major	34,100	13,000	0.38	Acceptable
	Lincoln St.	Alvarado St.	Secondary	25,900	12,000	0.46	Acceptable
	Alvarado St.	Grand Ave.	Secondary	25,900	5,000	0.19	Acceptable
Gunnerson St.	N of Lakeshore Drive	Lakeshore Drive	Collector	13,000	3,000	0.23	Acceptable

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ROADWAY	FROM:	TO:	CLASSIFICATION	LOS E. CAPACITY	TOTAL DAILY TRAFFIC VOLUMES	V/C	CAPACITY CALCULATION
	W of Riverside Drive	Riverside Drive	Collector	13,000	9,000	0.69	Acceptable
Baker St.	Nichols Rd.	Riverside Dr.	Collector	13,000	3,000	0.23	Acceptable
Pasadena St.	Riverside Dr.	Central Ave.	Secondary	25,900	7,000	0.27	Acceptable
	Central Ave.	E. of Central Ave.	Secondary	25,900	6,000	0.23	Acceptable
Collier Ave.	Nichols Rd.	Riverside Dr.	Major	34,100	22,000	0.65	Acceptable
	Riverside Dr.	Enterprise Way	Urban Arterial	53,900	51,000	0.95	Approaching Capacity
	Enterprise Way	Central Ave.	Urban Arterial	53,900	55,000	1.02	Potentially Exceeds Capacity
	Central Ave.	Chaney St.	Major	34,100	22,000	0.65	Acceptable
	Chaney St.	Minthorn St.	Secondary	25,900	17,000	0.66	Acceptable
Minthorn St.	Collier Ave.	Spring St.	Secondary	25,900	17,000	0.66	Acceptable
Flint St.	Spring St.	Main St.	Secondary	25,900	14,000	0.54	Acceptable
	Main St.	Rancho St.	Secondary	25,900	7,000	0.27	Acceptable
	Rancho St.	E. of Rancho St.	Secondary	25,900	8,000	0.31	Acceptable
	W. of Avenue 6	Avenue 6	Secondary	25,900	9,000	0.35	Acceptable
Franklin St.	Avenue 6	Old Franklin St./Auto Center Dr.	Secondary	25,900	26,000	1.00	Approaching Capacity
Auto Center Dr.	Old Franklin St.	W of Diamond Dr.	Major	34,100	26,000	0.76	Acceptable
	W of Diamond Dr.	Diamond Dr.	Major	34,100	24,000	0.70	Acceptable
Casino Dr.	Diamond Dr.	I-15 SB Ramps	Major	34,100	38,000	1.11	Potentially Exceeds Capacity
	I-15 SB Ramps	Malaga Rd.	Major	34,100	13,000	0.38	Acceptable

ROADWAY	FROM:	TO:	CLASSIFICATION	LOS E. CAPACITY	TOTAL DAILY TRAFFIC VOLUMES	V/C	CAPACITY CALCULATION
El Toro Rd.	Nichols Rd.	Dexter Ave.	Collector	13,000	7,000	0.54	Acceptable
11 St.	Nichols Rd.	Dexter Ave.	Collector	13,000	6,000	0.46	Acceptable
Rosarita Dr.	Nichols Rd.	Conard Ave.	Secondary	25,900	13,000	0.50	Acceptable
Conard Ave.	Rosarita Dr.	Central Ave.	Secondary	25,900	15,000	0.58	Acceptable
Riverside Dr.	N. of Collier Ave.	Collier Ave.	Secondary	25,900	29,000	1.12	Potentially Exceeds Capacity
	Collier Avenue	Baker Street	Urban Arterial	53,900	59,000	1.09	Potentially Exceeds Capacity
	Baker St.	Gunnerson Street	Urban Arterial	53,900	65,000	1.21	Potentially Exceeds Capacity
	Gunnerson St.	Lakeshore Drive	Urban Arterial	53,900	61,000	1.13	Potentially Exceeds Capacity
	Lakeshore Drive	Joy St.	Urban Arterial	53,900	55,000	1.02	Potentially Exceeds Capacity
	Joy Street	Lincoln Street	Urban Arterial	53,900	53,000	0.98	Approaching Capacity
	Lincoln Street	Grand Ave.	Urban Arterial	53,900	34,000	0.63	Acceptable
Central Ave.	W. of Collier Ave.	Collier Ave.	Major	34,100	7,000	0.21	Acceptable
	Collier Ave.	I-15 SB Ramps	Augmented Urban Arterial	71,800	60,000	0.84	Approaching Capacity
	I-15 SB Ramps	I-15 NB Ramps	Augmented Urban Arterial	71,800	56,000	0.78	Acceptable
	I-15 NB Ramps	Dexter Ave.	Augmented Urban Arterial	71,800	56,000	0.78	Acceptable
	Dexter Ave.	Cambern Ave.	Augmented Urban Arterial	71,800	46,000	0.64	Acceptable
	Cambern Ave.	Conard Ave.	Augmented Urban Arterial	71,800	58,000	0.81	Approaching Capacity
	Conard Ave.	Rosetta	Augmented	71,800	48,000	0.67	Acceptable

Section 3.4 – Transportation and Circulation



ROADWAY	FROM:	TO:	CLASSIFICATION	LOS E. CAPACITY	TOTAL DAILY TRAFFIC VOLUMES	V/C	CAPACITY CALCULATION
		Canyon	Urban Arterial				
	Rosetta Canyon	Riverside Dr.	Augmented Urban Arterial	71,800	51,000	0.71	Acceptable
SR-74	Riverside Dr.	Wasson Canyon Rd.	Augmented Urban Arterial	71,800	57,000	0.79	Acceptable
SR-74/Ortega Hwy.	Grand Ave	S of Grand Ave.	Major	34,100	29,000	0.85	Approaching Capacity
Cambern Ave.	Dexter Ave.	Central Ave.	Secondary	25,900	28,000	1.08	Potentially Exceeds Capacity
	Central Ave.	3rd St.	Secondary	25,900	16,000	0.62	Acceptable
	3rd St.	2nd St.	Secondary	25,900	7,000	0.27	Acceptable
2nd St.	Cambern Ave.	Dexter Ave.	Secondary	25,900	9,000	0.35	Acceptable
	Dexter Ave.	Camino Del Norte	Secondary	25,900	10,000	0.39	Acceptable
Camino Del Norte	2nd St	Main St	Secondary	25,900	14,000	0.54	Acceptable
	Main St.	Rosetta Canyon	Major	34,100	18,000	0.53	Acceptable
	Rosetta Canyon	La Strada	Secondary	25,900	25,000	0.97	Approaching Capacity
	La Strada	Avenue 6	Secondary	25,900	32,000	1.24	Potentially Exceeds Capacity
	Avenue 6	Old Franklin St.	Secondary	25,900	6,000	0.23	Acceptable
	Old Franklin St.	Summerhill Dr.	Collector	13,000	6,000	0.46	Acceptable
Lakeshore Dr.	Main St.	Avenue 6	Urban Arterial	53,900	42,000	0.78	Acceptable
	Avenue 6	Diamond Dr.	Urban Arterial	53,900	42,000	0.78	Acceptable
Mission Trail	Diamond Dr.	Malaga Rd.	Urban Arterial	53,900	26,000	0.48	Acceptable
	Malaga Rd.	Elberta Rd.	Urban Arterial	53,900	27,000	0.50	Acceptable
	Elberta Rd.	Olive St.	Urban Arterial	53,900	22,000	0.41	Acceptable
	Olive St.	Lewis St.	Urban Arterial	53,900	28,000	0.52	Acceptable

ROADWAY	FROM:	TO:	CLASSIFICATION	LOS E. CAPACITY	TOTAL DAILY TRAFFIC VOLUMES	V/C	CAPACITY CALCULATION
	Lewis St.	Lemon St.	Urban Arterial	53,900	29,000	0.54	Acceptable
	Lemon St.	Bundy Canyon Rd.	Urban Arterial	53,900	19,000	0.35	Acceptable
Rosetta Canyon	Central Ave.	E of Central Ave.	Secondary	25,900	8,000	0.31	Acceptable
	N of Camino Del Norte	Camino Del Norte	Secondary	25,900	13,000	0.50	Acceptable
Wasson Canyon Rd.	SR-74	Riverside Dr.	Collector	13,000	4,000	0.31	Acceptable
Avenue 6	Camino Del Norte	1-15 NB Ramps	Major	34,100	28,000	0.82	Approaching Capacity
	I-15 NB Ramps	I-15 SB Ramps	Major	34,100	31,000	0.91	Approaching Capacity
	I-15 SB Ramps	Flint St.	Major	34,100	32,000	0.94	Approaching Capacity
	Flint St.	Lakeshore Dr.	Collector	13,000	11,000	0.85	Approaching Capacity
Greenwald Ave.	Riverside Dr.	Scenic Crest Dr.	Secondary	25,900	21,000	0.81	Approaching Capacity
	Scenic Crest Dr.	Via Scenica	Secondary	25,900	20,000	0.77	Acceptable
	Via Scenica	Summerhill Dr.	Secondary	25,900	13,000	0.50	Acceptable
Vacation Dr.	Summerhill Dr.	E. of Summerhill Dr.	Collector	13,000	9,000	0.69	Acceptable
Summerhill Dr.	Greenwald Ave.	La Strada	Secondary	25,900	14,000	0.54	Acceptable
	La Strada	Via Scenica	Major	34,100	12,000	0.35	Acceptable
	Via Scenica	Canyon Estates Dr.	Major	34,100	12,000	0.35	Acceptable
	Canyon Estates Dr.	Railroad Canyon Rd.	Major	34,100	22,000	0.65	Acceptable
Grape St.	Railroad Canyon Rd.	I-15 NB Ramps	Major	34,100	33,000	0.97	Approaching Capacity

Section 3.4 – Transportation and Circulation



ROADWAY	FROM:	TO:	CLASSIFICATION	LOS E. CAPACITY	TOTAL DAILY TRAFFIC VOLUMES	V/C	CAPACITY CALCULATION
	I-15 NB Ramps	S of I-15 NB Ramps	Major	34,100	9,000	0.26	Acceptable
La Strada	Camino Del Norte	N of Camino Del Norte	Secondary	25,900	21,000	0.81	Approaching Capacity
	N of Camino Del Norte	W of Via Scenica	Secondary	25,900	14,000	0.54	Acceptable
	W of Via Scenica	Via Scenica	Secondary	25,900	12,000	0.46	Acceptable
	Via Scenica	Summerhill Dr.	Divided Collector	18,000	3,000	0.17	Acceptable
Railroad Canyon Rd.	I-15 Freeway	Summerhill Dr.	Urban Arterial	53,900	46,000	0.85	Approaching Capacity
	Summerhill Dr.	E of Summerhill Dr.	Urban Arterial	53,900	67,000	1.24	Potentially Exceeds Capacity
	E of Summerhill Dr.	W of Canyon Hills Dr.	Urban Arterial	53,900	68,000	1.26	<b>Deficient</b>
	W of Canyon Hills Dr.	Canyon Hills Dr.	Urban Arterial	53,900	65,000	1.21	Potentially Exceeds Capacity
	Canyon Hills Dr.	E of Canyon Hills Dr.	Urban Arterial	53,900	54,000	1.00	Approaching Capacity
Canyon Hills Dr.	Railroad Canyon Rd.	Lost Rd.	Major	34,100	29,000	0.85	Approaching Capacity
	Lost Rd.	Cottonwood Canyon Rd.	Major	34,100	25,000	0.73	Acceptable
	Cottonwood Canyon Rd.	E. of Cottonwood Canyon Rd.	Major	34,100	24,000	0.70	Acceptable
Diamond Dr.	I-15 Freeway	Auto Center Dr.	Urban Arterial	53,900	46,000	0.85	Approaching Capacity
	Auto Center Dr.	Mission Trail	Urban Arterial	53,900	51,000	0.95	Approaching Capacity
	Mission Trail	Malaga Rd.	Major	34,100	42,000	1.23	Potentially Exceeds Capacity

ROADWAY	FROM:	TO:	CLASSIFICATION	LOS E. CAPACITY	TOTAL DAILY TRAFFIC VOLUMES	V/C	CAPACITY CALCULATION
	Malaga Rd.	Elberta Rd. N	Major	34,100	29,000	0.85	Approaching Capacity
	Elberta Rd. N	Elberta Rd. S	Major	34,100	27,000	0.79	Acceptable
	Elberta Rd. S	Olive St.	Major	34,100	22,000	0.65	Acceptable
	Olive St.	W. of Corydon St.	Major	34,100	18,000	0.53	Acceptable
	W. of Corydon St.	Corydon St.	Major	34,100	15,000	0.44	Acceptable
Old Franklin St.	Auto Center Dr.	Canyon Estates Drive	Major	34,100	5,000	0.15	Acceptable
Corydon St.	Grand Ave.	Palomar St.	Major	34,100	37,000	1.09	Potentially Exceeds Capacity
	Palomar St.	Diamond Dr.	Major	34,100	43,000	1.26	<b>Deficient</b>
	Diamond Dr.	Mission Trail	Major	34,100	11,000	0.32	Acceptable
Source: 2011 Traffic Study, Table 8							

### Traffic Signal Warrant Analysis

Traffic signal warrant analysis has been conducted for the unsignalized intersections and indicates that the following intersections appear to warrant a traffic signal under General Plan Buildout conditions in addition to the intersections which currently warrant a traffic signal (see Attachment D to the 2011 Traffic Study):

Lake Street (NS) at:

- PacClay Theme Rd. A - Alberhill Ridge Rd. (EW)

Nichols Road (NS) at:

- I-15 Northbound Ramps (EW)
- I-15 Southbound Ramps (EW)

Grand Avenue (NS) at:

- Riverside Drive (EW)
- Ortega Hwy./SR-74

Riverside Street (NS) at:

- SR-74 (EW)

Main Street (NS) at:

- I-15 Northbound Ramps (EW)
- I-15 Southbound Ramps (EW)

Old Franklin Street (NS) at:

- Auto Center Drive (EW)

### *Conclusions*

As described above, with implementation of the Land Use Plan all roadways within the study area would be expected to have substantial traffic volumes and several of the intersection analysis locations would require improvements. Therefore, implementation of the GPU and Land Use Plan could result in significant impacts on traffic levels within the City and SOI. As a part of the Traffic Analysis conducted for the EIR, the proposed Circulation Section of the Community Form Chapter and Capital Improvement Program roadway lane configurations have been incorporated into the intersection improvements analysis. As shown in **Table 3.4-7**, all study area intersections are projected to operate at acceptable LOS during the peak hours with improvements that are consistent with the proposed roadway system and the implementation of the GPU Circulation Element and Capital Improvements Program. Therefore, with implementation of the improvements and goals and policies set forth by the Circulation Section of the Community Form Chapter and implementation of the City-wide Capital Improvements Program as a part of future development, impacts of the project on traffic levels would be reduced to less than significant.

The recommended intersection improvements at most of the intersections are expected to be constructed within the standard roadway cross-sections. Additional right-of-way/roadway width may be required at the following locations. However, this is an existing condition and not considered to be an impact of the GPU Circulation Element or the Land Use Plan. The improvements to this roadway would take place in accordance with the overall City Capital Improvement Program.

- Lake Street (NS) at Lakeshore Drive (EW) – North/South direction
- Lakeshore Drive (NS) at Riverside Drive (EW) – North/South and East/West direction
- Collier Avenue (NS) at Central Avenue (EW) – North/South and East/West direction
- Riverside Street (NS) at State Route 74 (EW) – North/South and East/West direction
- Cambern Avenue (NS) at State Route 74 (EW) – North/South and East/West direction
- Summerhill Drive/Grape Street (NS) at Railroad Canyon Road – North/South and East/West direction

However, the actual construction of the required intersection and roadway improvements cannot be determined with certainty. It is anticipated that as development that implements the proposed Land Use Plan proceeds, each development will pay for and construct general plan level road improvements on roads adjacent to the development sites. However, the timing of road improvements needed to improve level of service on a regional basis will be determined by the City of Lake Elsinore, other cities in western Riverside County, the County of Riverside and the Riverside County Transportation Commission based upon need and the availability of funding. Thus, it is possible that the required improvements will not be constructed in time to mitigate the proposed project's traffic and circulation impacts to below the level of significance. Therefore, the proposed project will cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections) and even after mitigation, will remain significant.

### ***3rd Street Annexation***

Additional analysis specifically addressing the Land Use Plan uses for the 3rd Street Annexation area of the North Central Sphere area has also been completed in conjunction with the overall General Plan update traffic technical analysis for the City of Lake Elsinore (3rd Street Annexation Area Revised Land Use Trip Generation Evaluation Urban Crossroads Inc. February 8, 2008 and Third Street Annexation Environmental Analysis Lake Elsinore, California February 2008, Project Design Consultants; included in Appendix C to this document) and indicates that the proposed land uses, consistent with the updated 3rd Street Annexation Area land use plan addressed in the Updated Lake Elsinore General Plan Land Use Alternatives Trip Generation Evaluation (included in Appendix C to this document), will not adversely affect traffic conditions in the potential impact area.

The trip generation rates are shown on **Table 3.4-11, 3rd Street Annexation Area Trip Generation**. Both daily and peak hour trip generation for the anticipated development are shown in **Table 3.4-12, 3rd Street Annexation Area Trip Generation Summary**. The anticipated development is projected to generate a total of approximately 24,008 trip-ends per day with 1,576 vehicles per hour during the AM peak hour and 2,339 vehicles per hour during the PM peak hour.

The possible project distribution pattern has also been developed and illustrated on **Figure 3.4-20, 3rd Street Annexation Project Trip Distribution (TAZ 1)** and **Figure 3.4-21, 3rd Street Annexation Trip Distribution (TAZ 2)** for the TAZ 1 and TAZ 2 areas. As illustrated, both TAZs show 25% traffic traveling northbound along I-15 and 25% traveling southbound along I-15. About 25% to 30% will travel along SR-74 towards the east, while 10% will travel along SR-74 towards the west. About 10% will travel along Camino Del Norte towards the south.

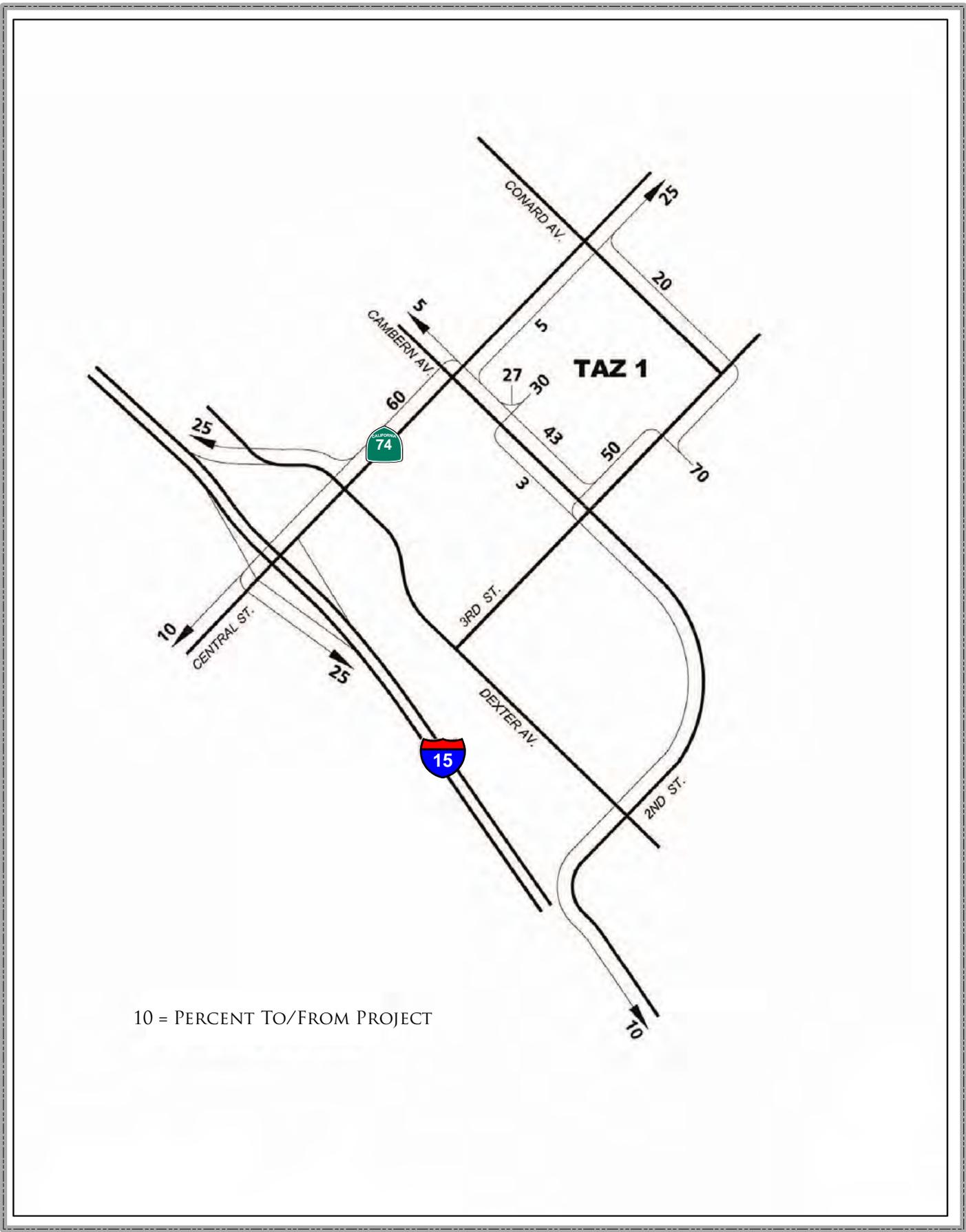
**Figure 3.4-22, 3rd Street Annexation Project AM/PM Project Only Volumes** illustrates the AM and PM project only volumes for the project, while **Figure 3.4-23, 3rd Street Annexation Project-Only Average Daily Traffic (ADT)**, shows the project only ADTs. The project only volumes generated based on the Institute of Traffic Engineers (ITE) methodology were then

compared with the model data to ensure that the final General Plan volumes represents the worst-case scenario.

Traffic operations analysis conducted for the additional intersections indicate that all of the intersections evaluated will warrant traffic signals under Land Use Plan conditions. The addition of signals would take place in accordance with the overall City Capital Improvement Program.

For on-site improvements, the curve radius for the alignment from 2nd Street to Camino Del Norte is currently substandard. However, this is an existing condition and not considered to be an issue to be addressed as a part of future development within the 3rd Street Annexation area. The improvements to this roadway would take place in accordance with the overall City Capital Improvement Program.

As described above, with implementation of the Land Use Plan (within the 3rd Street Annexation) all roadways within the study area would be expected to have substantial traffic volumes and nearly all of the intersection analysis locations would require improvements. Therefore, implementation of the GPU and Land Use Plan within the 3rd Street Annexation could result in significant impacts on traffic levels within the City and SOI. As a part of the Traffic Analysis conducted for the EIR, the proposed Circulation Section of the Community Form Chapter and Capital Improvement Program roadway lane configurations have been incorporated into the intersection improvements analysis. As shown in **Table 3.4-7**, all study area intersections are projected to operate at acceptable LOS during the peak hours with improvements that are consistent with the proposed roadway system and the implementation of the GPU Circulation Element and Capital Improvements Program. Therefore, with implementation of the improvements and goals and policies set forth by the Circulation Section of the Community Form Chapter and implementation of the City-wide Capital Improvements Program as a part of future development within the 3rd Street Annexation, impacts of the 3rd Street Annexation on traffic levels would be reduced to less than significant.



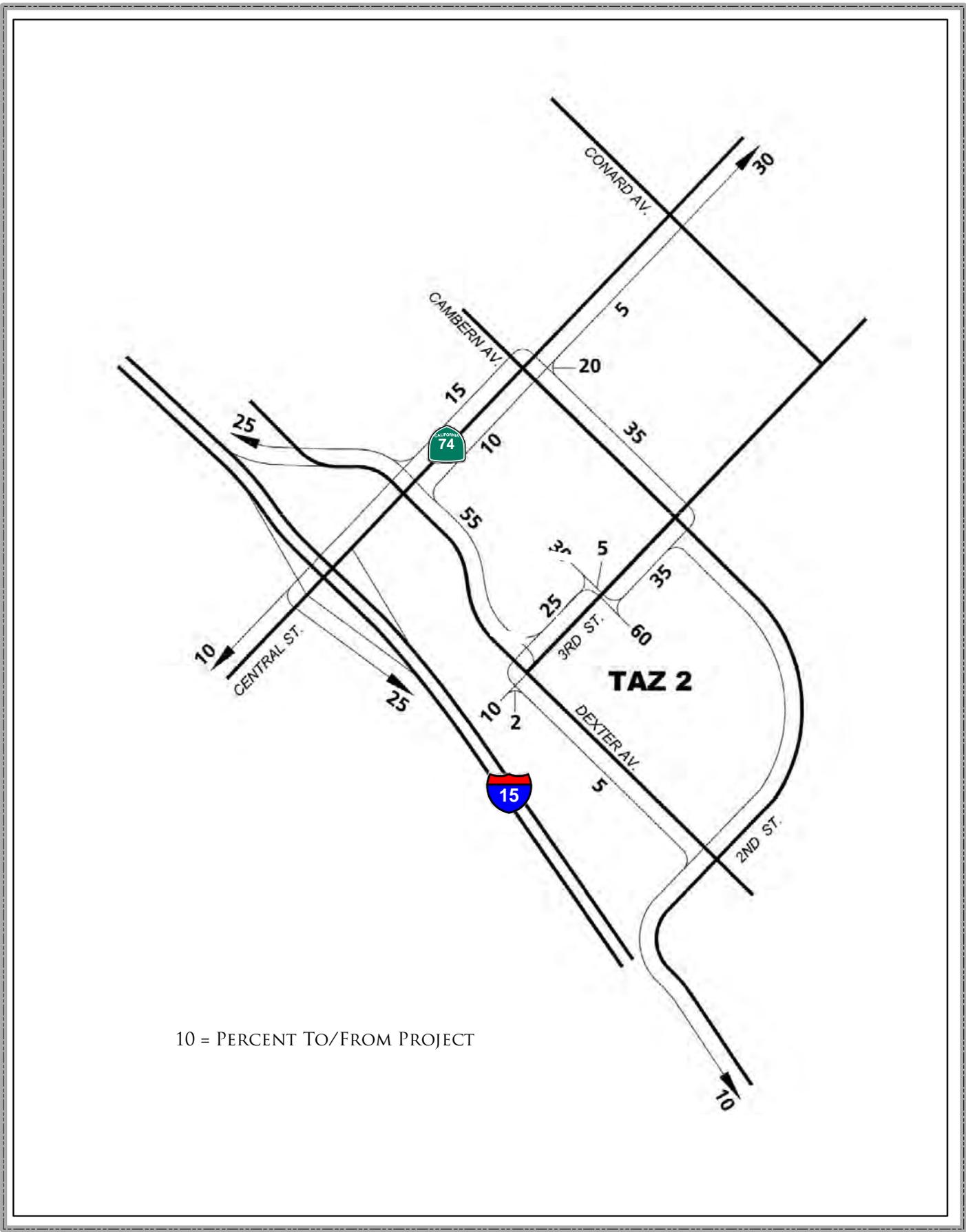
SOURCES: URBAN CROSSROADS



3RD STREET ANNEXATION PROJECT  
 TRIP DISTRIBUTION (TAZ 1)  
 FIGURE 3.4-20



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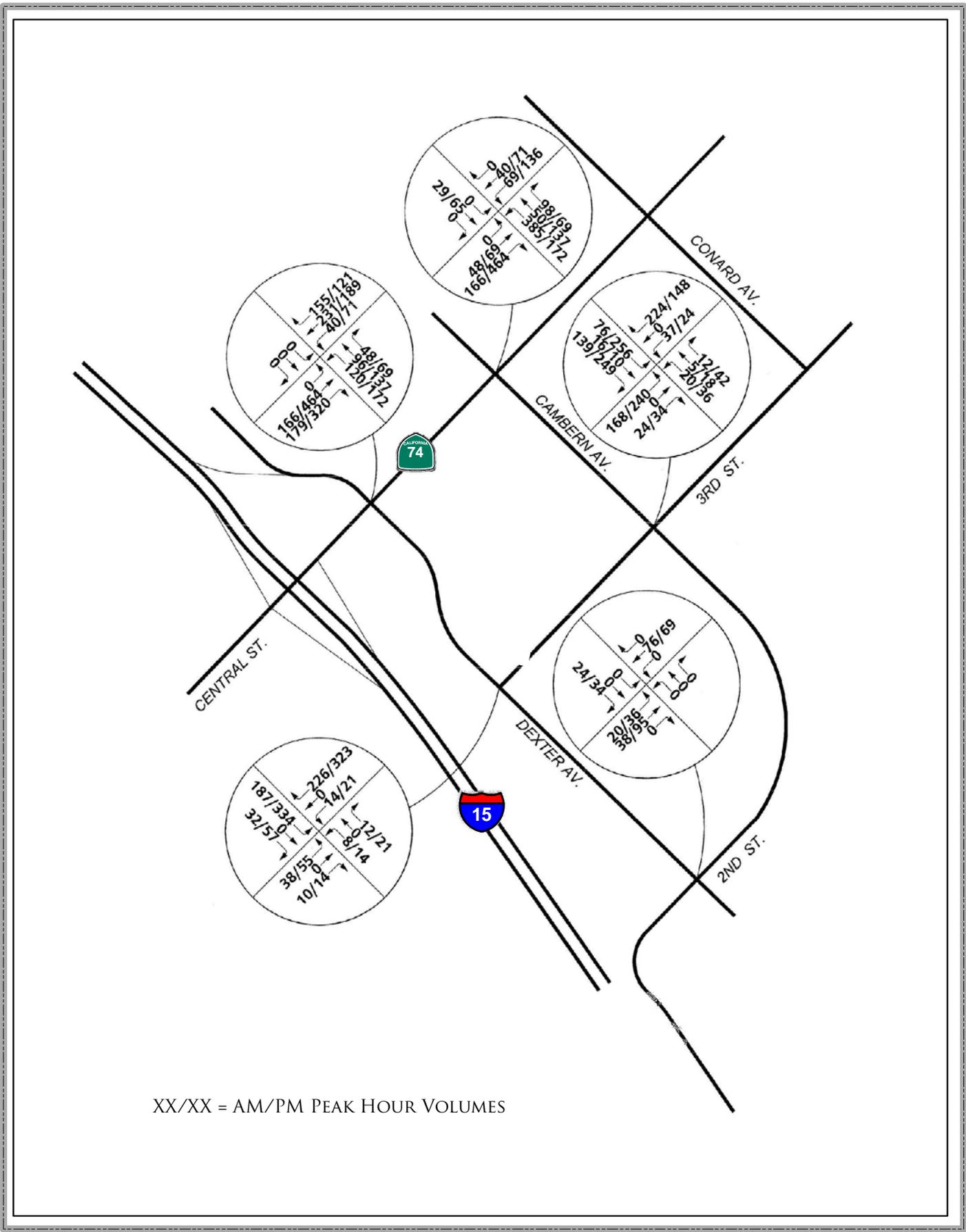


SOURCES: URBAN CROSSROADS



3RD STREET ANNEXATION PROJECT  
 TRIP DISTRIBUTION (TAZ 2)  
 FIGURE 3.4-21

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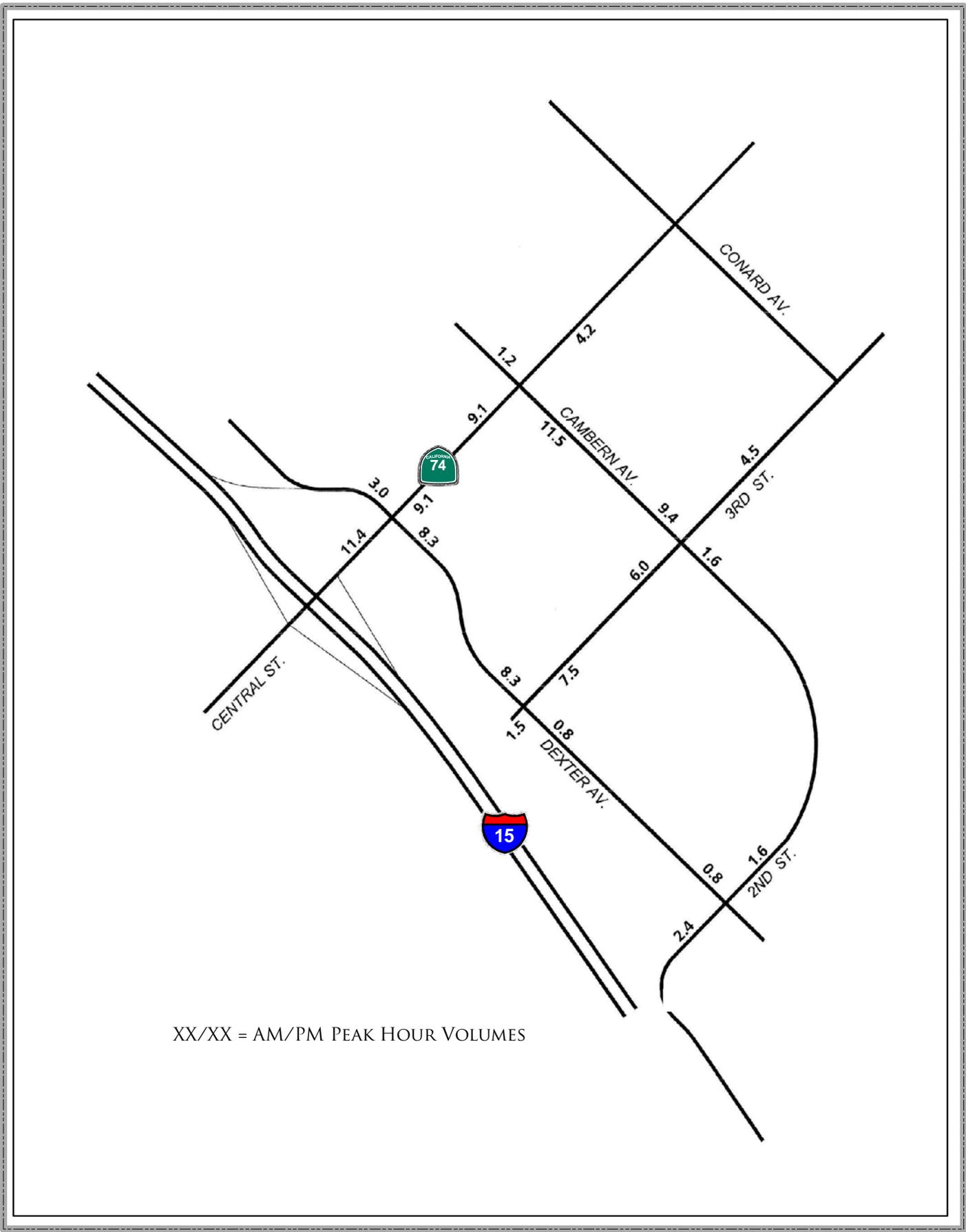


SOURCES: URBAN CROSSROADS



3RD STREET ANNEXATION PROJECT  
 AM/PM PROJECT ONLY VOLUMES  
 FIGURE 3.4-22

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SOURCES: URBAN CROSSROADS



3RD STREET ANNEXATION PROJECT-ONLY  
 AVERAGE DAILY TRAFFIC (ADT)  
 FIGURE 3.4-23

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**Table 3.4-11, 3rd Street Annexation Area Trip Generation Rates<sup>1</sup>**

LAND USE	ITE CODE	QUANTITY	UNITS <sup>2</sup>	PEAK HOUR TRIP RATES						DAILY
				AM			PM			
				IN	OUT	TOTAL	IN	OUT	TOTAL	
Single Family Residential <sup>3</sup>	210	527	DU	0.19	0.56	0.75	0.64	0.37	1.01	9.57
Residential Condo/ Townhouse <sup>3</sup>	230	972	DU	0.07	0.37	0.44	0.35	0.17	0.52	5.86
Commercial (462,084 TSF <sup>3,4</sup> )	820	462.084	TSF	0.52	0.33	0.85	1.79	1.93	3.72	39.75
Business Park <sup>3,5</sup>	770	250.906	TSF	1.20	0.23	1.43	0.3	0.99	1.29	12.76

<sup>1</sup> Source: ITE (Institute of Transportation Engineers) Trip Generation Manual, 7th Edition, 2003  
<sup>2</sup> DU = Dwelling Units, TSF = Thousand Square Feet.  
<sup>3</sup> Based on Proposed Land Uses  
<sup>4</sup> 462.084 TSF is based on a 0.80 Net-to-Gross Area Factor and a 0.3 Floor-to-Area Ratio applied to the gross site acreage of 31.2 acres (Mixed Use (80% of 39 acres)) plus 13 acres (General Commercial).  
<sup>5</sup> 250.906 TSF is based on a 0.80 Net-to-Gross Area Factor and a 0.4 Floor-to-Area Ratio applied to the gross site acreage of 18 acres.

**Table 3.4-12. 3rd Street Annexation Area Trip Generation Summary**

LAND USE	QUANTITY	UNITS <sup>1</sup>	PEAK HOUR						DAILY
			AM			PM			
			IN	OUT	TOTAL	IN	OUT	TOTAL	
Single Family Residential	527	DU	100	295	395	337	195	532	5,043
Residential Condo/Townhouse	972	DU	68	360	428	340	165	505	5,696
Commercial (462.084 TSF)	462.084	TSF	240	152	393	827	892	1,719	18,368
Pass-By Trips (25%)			-60	-38	-98	-207	-223	-430	-4,592
Commercial Sub-Total			180	114	295	620	669	1,289	13,776
Business Park	250.906	TSF	301	58	359	75	248	324	3,202
Overall Subtotal			650	827	1,476	1,373	1,277	2,650	27,717
Internal Capture (15%)			-97	-124	-221	-206	-192	-398	-4,158
Total			553	703	1,255	1,167	1,085	2,252	23,559

<sup>1</sup> DU = Dwelling Units; TSF = Total Square Footage

*Mitigation Measures*

*Results of Traffic Analysis*

**MM Transportation 1:** The intersection of Old Franklin Street at Auto Center Drive shall be configured as a through street parallel to I-15, with the overcrossing of the freeway forming a “T” intersection.

**MM Transportation 2:** Individual projects implemented pursuant to the Land Use Plan will be required to demonstrate avoidance of significant impacts through implementation of the ultimate roadway and intersection classifications and improvements shown on the Land Use Plan and the Capital Improvement Program as well as the goals and policies set forth by the Circulation Section of the Community Form Chapter. With implementation of these goals and policies, individual projects implemented in accordance with the GPU and Land Use Plan would not result in significant and unavoidable adverse impacts on traffic levels.

*3rd Street Annexation*

**MM Transportation 3:** Individual projects implemented pursuant to the Land Use Plan within the 3rd Street Annexation will be required to demonstrate their avoidance of significant impacts through:

- implementation of the ultimate roadway and intersection classifications and improvements shown on the Land Use Plan and the Capital Improvement Program;
- the goals and policies set forth by the Circulation Section of the Community Form Chapter;
- implementation of improvements to signalization and the curve radius for the alignment from 2nd Street to Camino Del Norte identified in the Traffic Study.

*Level of Significance*

With implementation of the Land Use Plan all roadways within the study area would be expected to have substantial traffic volumes and nearly all of the intersection analysis locations would require improvements. Therefore, implementation of the GPU and Land Use Plan could result in potentially significant impacts on traffic levels within the City and SOI.

However, through implementation of the GPU goals, policies and implementation programs and the above-listed mitigation measures, all study area intersections would operate at acceptable LOS during peak hours after implementation of the proposed improvements. In addition, some intersections currently warrant a traffic signal and additional intersections would warrant a traffic signal with buildout of the GPU.

The actual construction of the required intersection and roadway improvements cannot be determined with certainty. Thus, it is possible that the required improvements will not be constructed in time to mitigate the proposed project’s traffic and circulation impacts to below the level of significance. Therefore, the proposed project will cause an increase in traffic which is

substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections) and even after mitigation, will remain significant.

**Threshold: Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.**

*Analysis*

The Skylark Airport is a privately owned airport that occupies approximately 150 acres of land located at the southern City limits boundary on Corydon Road. The airport currently houses 21 single-engine aircraft, five multi-engine aircraft, and four gliders. This airport provides glider and skydiving opportunities for the community and surrounding region. The runway surface at Skylark Airport consists of gravel and sand; as such, this surface generally does not permit optimal conditions for frequent and convenient airport operations. Skylark Airport is a private use airport with runways that are 2800 feet in length and fall under the category of Short General Aviation Runways.

The Land Use Plan would allow development of residential and commercial uses in the vicinity of the airport. However, no features of the GPU or the Land Use Plan would conflict with requirements of the FAA regarding proximity of development to airports. All future development proposed within proximity to the airport would be required to comply with FAA regulations to ensure that future residents or employees are not subject to significant hazards. The proposed project does not include any components that would alter air traffic patterns at Skylark Airport or any other airport. Potential land use compatibility impacts related to the proximity of the airport to adjacent land uses are discussed further in Section 3.1 (Land Use and Planning) of this PEIR.

*Mitigation Measures*

No mitigation is required.

*Level of Significance*

See Section 3.1 (Land Use and Planning) of this PEIR for impact analysis. Implementation of the proposed project would not result in significant impacts related to airport traffic patterns.

**Threshold: Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).**

*Analysis*

CEQA guidelines require determination of impacts from increased hazards due to a design feature or incompatible uses, inadequacy of emergency access, and inadequacy of parking capacity. Each of these potential impacts should be analyzed on a project level as individual developments are proposed. A programmatic level GPU Land Use Plan or Circulation Element

can affect emergency access; however, impacts related to design features, incompatibility, and parking capacity are not applicable on a programmatic level. The improvements included in the Traffic Study ensure sufficient capacity of roadways and intersections for efficient utilization by both normal vehicle traffic and emergency vehicle traffic. As a result, implementation of the GPU would not substantially increase hazards from a design feature or incompatible uses and impacts are less than significant.

*Mitigation Measures*

No mitigation is required.

*Level of Significance*

The proposed project will not increase hazards due to design features or incompatible uses, result in inadequate emergency access, or result in inadequate parking capacity. Therefore, impacts are less than significant.

**Threshold: Would the project result in inadequate emergency access.**

*Analysis*

The proposed project would be required to meet all applicable local and State regulatory standards for adequate emergency access.

While implementation of the proposed project would increase the amount of vehicle traffic and modify the roadway network, the proposed General Plan Update is designed to provide and maintain a comprehensive circulation system within the City that would provide adequate roadway connections and emergency access options.

Proposed development projects implemented in accordance with the proposed project will be required to comply with the City’s development review process including review for compliance with the City’s Zoning Code. New developments associated with the buildout of the proposed General Plan Update would be required to comply with all applicable fire code requirements for construction and access to the site. Individual projects would be reviewed by the City Fire Department to determine the specific fire requirements applicable to the specific development and to ensure compliance with these requirements. This would ensure that new developments would provide adequate emergency access to and from the site. Further, the City Engineer and the City Fire Department would review any modifications to existing roadways to ensure that adequate emergency access or emergency response would be maintained.

*Mitigation Measures*

No mitigation is required.

*Level of Significance*

Implementation of the proposed project will not result in inadequate emergency access and potential impacts will be less than significant.

**Threshold: Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.**

*Analysis*

AB 1358, the Complete Streets Act, requires cities and counties (starting in 2011), upon revision of the Circulation Element of their General Plan, to identify how the jurisdiction will provide for the routine accommodation of all users of the roadway, including motorists, pedestrians, bicyclists, individuals with disabilities, seniors, and users of public transportation. Planning and implementing “complete streets” is one way cities and counties can meet this requirement.

The City of Lake Elsinore General Plan meets the goals and policies of the Complete Streets Act in several ways. First, the Plan fundamentally increases the range of transportation options for travel within the City of Lake Elsinore and to adjacent western Riverside County jurisdictions by identifying a backbone network of bicycle and pedestrian routes. This on- and off-street network of routes improves safety for pedestrians and cyclists by providing dedicated facilities apart from motorist. The Plan also addresses ancillary facilities that are necessary to make a complete street work: the Plan establishes preferred or “typical” design standards for route classifications and discusses the need for bicycle accommodations. Lastly, the Plan specifically includes facilities consistent with the recently completed Western Riverside County Non-Motorized Transportation Plan

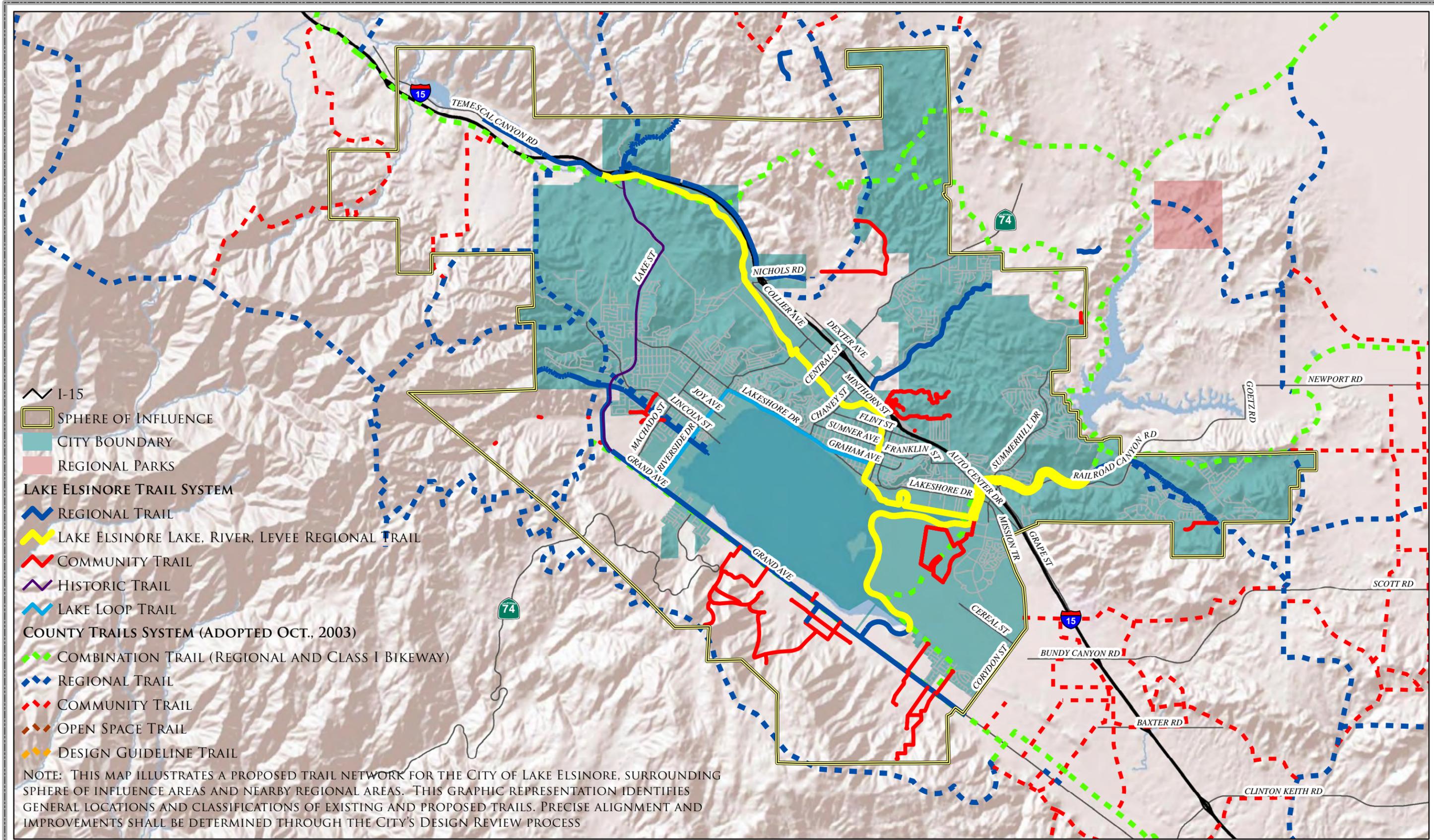
***Compatibility with Adopted Policies Supporting Alternative Transportation***

Section 2.0 (Community Form) of the GPU includes goals and policies that support the use and availability of alternative transportation and related infrastructure. The proposed GPU contains policies to encourage alternate forms of transportation, including walkways and bikeways. (Refer to the proposed GPU goals, policies and implementation programs under Goal 6, Circulation section, Community Form chapter; and Goal 9, Parks and Recreation section, Community Form chapter; Policy 2.5, Land Use section, Community Form chapter, and the goals, policies and implementation programs within the District Plans.) **Figure 3.4-24, Elsinore Area Trails System**, presents the City’s Trails Map which is also shown as Figure 2.7 in the City’s General Plan Update. The City’s Trails Map has been reviewed in conjunction with the recommended roadway network for the Proposed Land Use Plan. The recommended cross-sections for the Proposed Land Use Plan scenario (see **Figure 3.4-15**) will provide sidewalks for all of the General Plan roadways that also appear as a “Trail” on the City’s Trail Map.

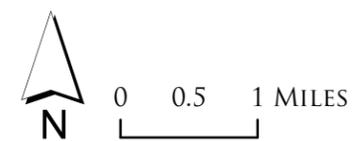
Future developments proposed within the City would need to implement these goals and policies to ensure that alternative transportation opportunities will exist within the City. As a result, implementation of the GPU would not conflict with any adopted policies supporting alternative transportation and the impact is less than significant.



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SOURCES: GARY ANDRE, DISTRICT 1, RIVERSIDE COUNTY TRAILS COMMITTEE, CITY OF LAKE EL SINORE, COUNTY OF RIVERSIDE



CITY OF LAKE EL SINORE  
 EL SINORE AREA TRAILS SYSTEM  
 FIGURE 3.4-24

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### *Bikeways*

**Figure 3.4-25, Proposed Bikeways** presents the City's Proposed Bikeway Map which is also shown as Figure 2.6 2.5 in the City's General Plan Update. The City's Proposed Bikeway Map has been reviewed in conjunction with the recommended roadway network for the Proposed Land Use Plan (**Figure 2.0-4**). The recommended cross-sections for the Proposed Land Use Plan scenario (**Figure 3.4-15**) will provide sidewalk width for all of the General Plan roadways that are planned to be a bikeway on the City's Bikeway Map.

Implementation of individual projects and associated population growth anticipated in accordance with the Land Use Plan could result in significant impacts on existing bikeways or create hazards by failing to support alternative modes of transportation. The proposed GPU Circulation Section of the Community Form Chapter proposes changes to the existing bikeway plan that will provide for additional bikeways within the City. Compared to the existing bike path map, the proposed bikeway map (**Figure 3.4-25**) includes the following changes. Implementation of these modifications would not conflict with adopted policies and programs supporting alternative transportation.

- SR-74 north of Strickland Avenue will no longer be a Class II bikeway. SR-74 is proposed to be an Augmented Urban Arterial with four lanes in each direction. No bike paths can be accommodated on the proposed cross-section. Instead, the proposed corridor of Riverside Street, Theda Street, and Nichols Road Extension is proposed to be designated as a Class II bikeway. This will reduce potential bicycle/vehicle conflicts.
- Greenwald Avenue is designated as a Class II bikeway from Riverside Street to Summerhill Avenue.
- The Class II bikeway along Dexter Avenue will be replaced by the proposed roadway segment between Nichols Road Extension and Riverside Drive Crossing. The Class II bikeway along Cambern Avenue, north of SR-74 connecting to Riverside Drive Crossing is added to the system. The Class II bikeway along Cambern Avenue south of SR-74 connecting to Camino Del Norte via 2nd Street is also proposed.
- The Class III bikeway along Ramsgate Drive from SR-74 to Summerhill Drive is eliminated due to the change of the roadway system in the area.
- The Class II bikeway along Diamond Drive from Mission Trail to Corydon Street will replace the bikeway along Bundy Canyon Road from Lakeshore Drive to Corydon Street on the existing plan.

### *Truck Routes*

**Figure 3.4-26, City of Lake Elsinore Truck Route Map**, illustrates the City's Truck Route Map (dated December 2006). Figure 3.4-26 has been reviewed in conjunction with the recommended roadway network for the Proposed Land Use Plan. Based on a review of the City's truck route

map, all of the roads currently designated as a truck route are planned as Arterial-level roadways in the recommended Proposed Land Use Plan Circulation Element.

Implementation of individual projects and associated population growth anticipated in accordance with the Land Use Plan could result in significant impacts on existing truck routes or create hazards by failing to provide adequate truck routes.

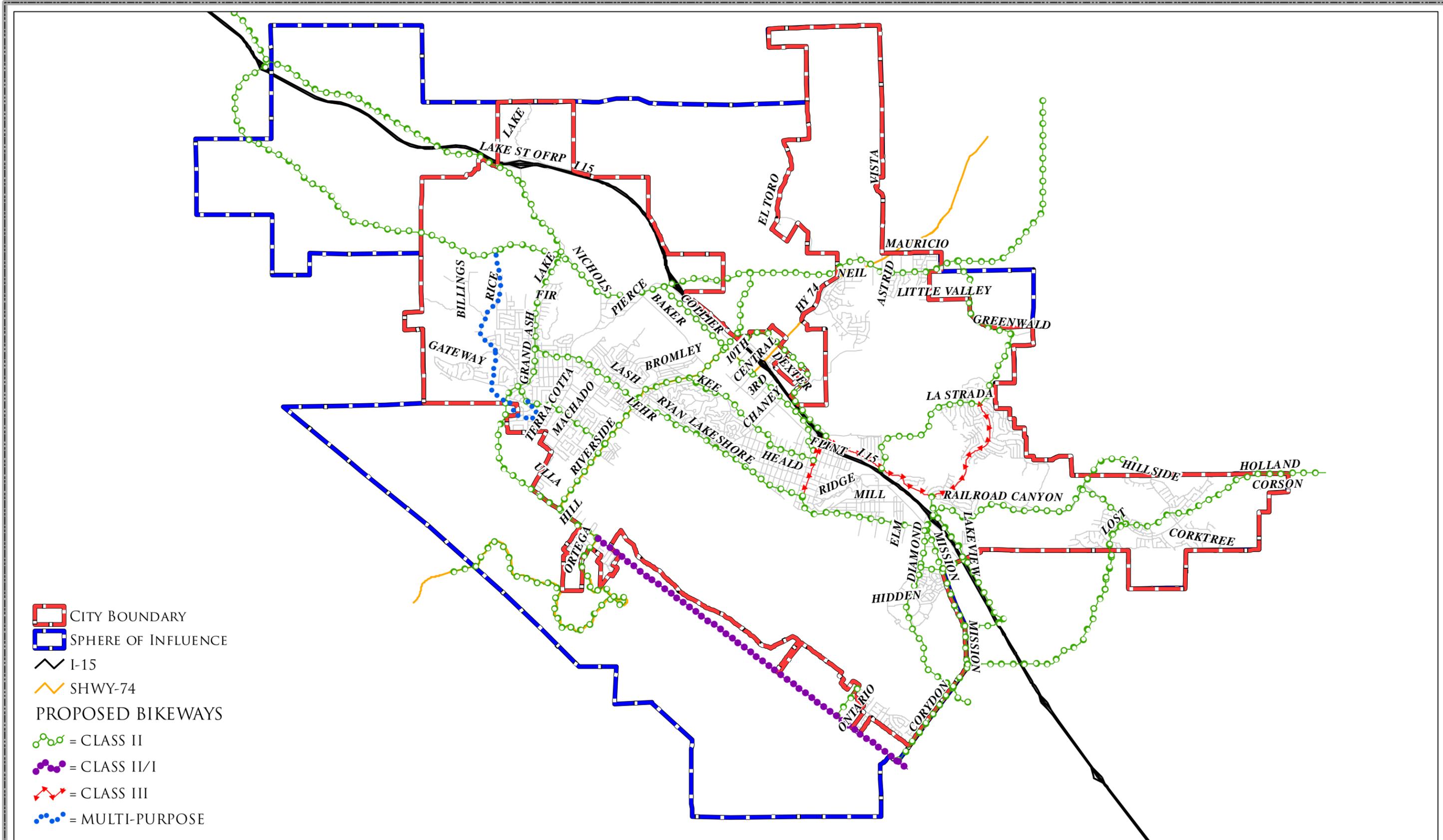
### *Transit*

The Riverside Transit Agency (RTA) provides public bus service to the City. Currently, five bus routes along several Lake Elsinore roadways provide alternative intra-City and regional transportation options (see **Figure 3.4-10**). Moreover, the Lake Elsinore Dial-a-Ride (DAR), operated by RTA, serves seniors and persons with disabilities with advance-reservation designed to provide curb-to-curb transportation. As new population growth occurs and transit demand increases, additional bus transit services will be developed to ensure that adequate supply exists. Largely market driven, bus transit service will expand as needed and will be self mitigating and therefore, potential impacts upon bus services would be less than significant.

In addition to bus transit, rail transit service to the City of Lake Elsinore has also been considered. In 2005, the Riverside County Transportation Commission completed an evaluation of potential commuter rail routes (e.g. Metrolink service) within Riverside County. The potential commuter rail routes led to an alternative of establishing a modified rail corridor that would go from Corona to Lake Elsinore. This alternative and other potential rail routes were evaluated based on the following eight (8) criteria:

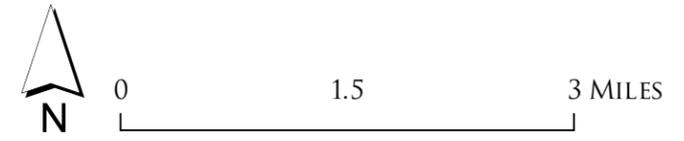
1. Ridership – Passenger Trips
2. Right-of-Way Issues
3. Operating Cost Per Passenger -Mile
4. Capital Cost (Track, Stations and Equipment)
5. Farebox Recovery Ratio
6. Mobility Improvements – Daily Trip Time Savings
7. Mobility Improvements – Access to Low Income Households
8. Capital Cost Per Passenger

Based on the eight (8) evaluation criteria and analysis, all of these evaluated rail routes did not offer a cost effective or viable commuter rail extension at the time the study was performed (2005). As population trends and demographics change, the feasibility of these routes could then be re-evaluated.



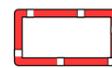
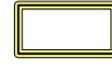
- CITY BOUNDARY
- SPHERE OF INFLUENCE
- I-15
- SHWY-74
- PROPOSED BIKEWAYS
- = CLASS II
- = CLASS II/I
- = CLASS III
- = MULTI-PURPOSE

SOURCES: CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE



CITY OF LAKE ELSINORE  
 PROPOSED BIKEWAYS  
 FIGURE 3.4-25

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-  CITY BOUNDARY
-  SPHERE OF INFLUENCE
-  TRUCK ROUTES
-  HIGHWAY 74
-  INTERSTATE 15

NOTE:

SPRING STREET: LIMITED STREET TO LAKESHORE DRIVE  
(TRUCK ROUTE - SOUTHBOUND ONLY)

LAKESHORE DRIVE: SPRING STREET TO MAIN STREET  
(TRUCK ROUTE - EASTBOUND ONLY)

LIMITED STREET: SPRING STREET TO MAIN STREET  
(TRUCK ROUTE - WESTBOUND ONLY)

SOURCES: CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE



CITY OF LAKE ELSINORE  
TRUCK ROUTE MAP  
FIGURE 3.4-26

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*Mitigation Measures*

*Bikeways*

**MM Transportation 4:** Individual projects implemented pursuant to the Land Use Plan will be required to demonstrate avoidance of significant impacts through implementation of the ultimate roadway and intersection classifications and improvements shown on the Land Use plan and the Capital Improvement Program as well as the goals and policies set forth by the Circulation Section of the Community Form Chapter.

*Truck Routes*

**MM Transportation 5:** Individual projects implemented pursuant to the Land Use Plan will be required to demonstrate avoidance of significant impacts through implementation of the ultimate roadway and intersection classifications and improvements shown on the Land Use Plan and the Capital Improvement Program as well as the goals and policies set forth by the Circulation Section of the Community Form Chapter.

*Level of Significance*

*Compatibility with Adopted Policies Supporting Alternative Transportation*

The Circulation Element of the GPU will not conflict with any adopted policies supporting alternative transportation. Therefore, there will be no significant impact.

*Bikeways*

With implementation of General Plan goals, policies and implementation programs, individual projects implemented in accordance with the GPU and associated population growth anticipated in accordance with the Land Use Plan would not result in significant and unavoidable adverse impacts on bikeways and will provide adequate opportunities for alternative transportation by providing additional bikeways within the City.

*Truck Routes*

With implementation of General Plan goals, policies and implementation programs, individual projects implemented in accordance with the GPU and associated population growth anticipated in accordance with the Land Use Plan would not result in significant and unavoidable adverse impacts on existing and planned truck routes.

*Transit*

With implementation of General Plan goals, policies and implementation programs, individual projects implemented in accordance with the GPU and associated population growth anticipated in accordance with the Land Use Plan would not result in significant and unavoidable adverse impacts on transit services.

### 3.4.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the policies of the GPU, all impacts related to traffic would be reduced to less than significant. However, the actual construction of the required intersection and roadway improvements cannot be determined with certainty. Thus, it is possible that the required improvements will not be constructed in time to mitigate the proposed project's traffic and circulation impacts to below the level of significance. Therefore, the proposed project will cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections) and even after mitigation, will remain significant and unavoidable.

### 3.4.8 REFERENCES

In addition to other reference documents, the following references were used in the preparation of this section of the EIR:

California Governor's Office of Planning and Research, *Update to the General Plan Guidelines: Complete Streets and the Circulation Element*, December 15, 2010. (Available at [www.opr.ca.gov/index.php?a=planning/publications.html](http://www.opr.ca.gov/index.php?a=planning/publications.html); accessed on July 15, 2011.)

City of Lake Elsinore, *Final Environmental Impact Report, Diamond Specific Plan*, Prepared by HDR, May 2010. (Available at City of Lake Elsinore, 130 S. Main Street, Lake Elsinore, CA 92530)

City of Lake Elsinore, *General Plan Background Reports*, prepared by Mooney Jones & Stokes, January 2006. (Appendix B)

City of Lake Elsinore, *Municipal Code* (Available at [www.lake-elsinore.org/index.aspx?page=346](http://www.lake-elsinore.org/index.aspx?page=346); accessed June 20, 2011.)

City of Lake Elsinore, *Third Street Annexation Environmental Analysis, Lake Elsinore, California*, prepared by Project Design Consultants, August 2007. (Appendix C)

Riverside County Transportation Commission, *2010 Riverside County Congestion Management Program*, March 10, 2010. (Available at [www.rctc.org/congestionmanagement.asp](http://www.rctc.org/congestionmanagement.asp); accessed on June 27, 2011.)

Riverside County Transportation Commission, *Web Site*. (Available at [www.rctc.org](http://www.rctc.org); accessed on June 27, 2011.)

Southern California Association of Governments, *2008 Regional Transportation Plan Web Site*. (Available at [www.scag.ca.gov/rtp2008/index.htm](http://www.scag.ca.gov/rtp2008/index.htm); accessed on June 27, 2011.)

Urban Crossroads, *3rd Street Annexation Area Revised Land Use Trip Generation Evaluation*, February 8, 2008) (Appendix C)

Urban Crossroads, *3rd Street Annexation Area Traffic Engineering Services*, August 8, 2006) (Appendix C)

Urban Crossroads, *City of Lake Elsinore General Plan Traffic Study, Lake Elsinore, California*, August 22, 2006, Revised January 24, 2007. (Appendix D) (Urban Crossroads 2006)

Urban Crossroads, *City of Lake Elsinore General Plan Update Proposed Land Use Plan Revised Transportation Analysis*. August 4, 2011. (Appendix D) (Urban Crossroads 2011)

Western Riverside County of Governments, *Web Site*. (Available at [www.wrcog.cog.ca.us](http://www.wrcog.cog.ca.us); accessed on June 27, 2011.)

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