

**CITY OF LAKE ELSINORE GENERAL PLAN UPDATE
ANNOTATED RECIRCULATED DRAFT EIR**

SCH #2005121019

**APPENDIX D
TRAFFIC STUDIES**

PREPARED FOR:

**CITY OF LAKE ELSINORE
130 SOUTH MAIN STREET
LAKE ELSINORE, CA 92530**

**AUGUST 2011
REVISED DECEMBER 2011**

**CERTIFIED BY CITY COUNCIL: DECEMBER 13, 2011
(RESOLUTION No. 2011-070)**

November 9, 2011

Ms. Carole Donohoe
CITY OF LAKE ELSINORE
130 South Main Street
Lake Elsinore, CA 92530

Subject: City of Lake Elsinore General Plan Update Additional Roadway Classification Review

Dear Mr. Donohoe:

Urban Crossroads, Inc. is pleased to provide this further review of selected roadway classification recommendations for the City of Lake Elsinore General Plan Update project. At the request of Mr. Warren Morelion (City of Lake Elsinore staff), additional review of the recommended roadway classifications for two relatively minor "loop" roadways located west of Lincoln Street and south of the I-15 Freeway.

Exhibit M of our letter report dated August 4, 2011 shows the two roadways in question with a recommended classification of Secondary Arterial. This is consistent with the previously recommended classification(s) for these roadways as shown on Exhibit A of the same report. Typically, our primary concern is for identifying roadways that may need to be upgraded based on new analysis results, and no change was recommended for these two roadways.

Based on the future daily traffic volume forecasts presented on Exhibit L of the same letter report, the maximum daily traffic volume on the southern loop roadway ranges between 3,000 and 6,000 vehicles per day (VPD). This traffic volume should be accommodated by the Divided Collector cross-section.

The volume on the northernmost roadway segment of the two loops is 10,000 VPD, higher than the other two segments under consideration. Therefore, additional detailed data available from the traffic

Ms. Carole Donohoe
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study prepared for the Alberhill Villages Specific Plan (Traffic Impact Analysis Report, Alberhill Villages Specific Plan, Linscott, Law & Greenspan, September, 2010) has been reviewed. The peak hour traffic volume on this roadway reaches a maximum of between 300 and 400 vehicles per hour (VPH), which again should be reasonably accommodated by a Divided Collector cross-section.

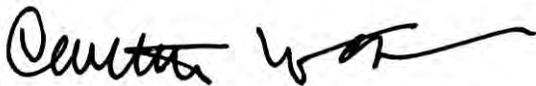
The peak hour operations analysis from the Alberhill Villages Specific Plan traffic study report for the intersection of the northernmost roadway under consideration with Lincoln Street / Temescal Canyon Road was also reviewed. The analysis indicated that LOS "D" with delays of 49 seconds per vehicle and an overall intersection volume to capacity (V/C) ratio of 0.94 is expected during the PM peak hour. Given that the more recent General Plan update analysis suggests an increase in daily traffic volumes in the vicinity of this intersection, it is recommended that consideration be given to designating this intersection as a special study location to ensure that appropriate and adequate intersection geometry is provided in the future.

CLOSING

Urban Crossroads, Inc. is pleased to provide this additional roadway classification review for your use. Please feel free to call me at (949) 660-1994 x210 if you have any questions or wish to discuss the suggested response.

Respectfully submitted,

URBAN CROSSROADS, INC.



Carleton Waters, P. E.
Principal

CW:

JN:07545-11 Additional Roadway Classification Review.doc
xc: Mr. Richard MacHott, CITY OF LAKE ELSINORE
Mr. Warren Morelion, CITY OF LAKE ELSINORE

August 4, 2011

Ms. Carole Donohoe
CITY OF LAKE ELSINORE
130 South Main Street
Lake Elsinore, CA 92530

Subject: City of Lake Elsinore General Plan Update Proposed Land Use Plan Revised Transportation Analysis

Dear Mr. Donohoe:

Urban Crossroads, Inc. is pleased to provide this revised letter report summarizing the analysis results for the Proposed Land Use Plan scenario. This work has been completed in support of the ongoing General Plan update process under direction of City staff. This letter report summarizes the efforts required to finalize the modeled data inputs, as well as the final results for the Proposed Land Use Plan scenario. Revisions included in this letter report include relatively minor changes to the recommended roadway cross-sections (Exhibit H) and the long range daily traffic volumes (Exhibit I). These changes were made based upon input received from City staff.

BACKGROUND INFORMATION

The information in this letter report has been prepared based on the Proposed Land Use plan provided by the project team. Exhibit A illustrates the previously recommended City Council Directed Plan Scenario roadway system. The City Council Directed Plan Scenario roadway cross-sections are depicted on Exhibit B. The City Council Directed Plan Scenario is the most recent alternative considered and has been derived from the following previous scenarios:

- The Currently Adopted General Plan Scenario – This is the General Plan Circulation Element roadway system which was currently adopted at the time the General Plan Update process was initially being prepared (shown on Exhibit C). The Currently Adopted General Plan roadway cross-sections are presented on Exhibit D. The City's General Plan roadway system includes local streets (2 lane undivided roadways) up to an Urban Arterial – State Highway designation (8-lane divided roadway).

- The Preferred General Plan Scenario (traffic report completed in 2006) - Exhibit E presents the City of Lake Elsinore Preferred General Plan Scenario previously recommended roadway system. The roadway cross-sections for the City of Lake Elsinore Preferred General Plan Scenario are identical to the cross-sections presented for the City Council Directed General Plan Scenario (previously shown on Exhibit B).

The recommended roadway system and roadway cross-sections have been updated based upon the analysis presented in subsequent sections of this letter report and the requirements pertaining to sustainability and “complete streets” that have been recently adopted into law.

MODELED ROADWAY SYSTEM

Consistent with all of the previous analysis that has been completed for the ongoing General Plan update effort, the Western Riverside Subarea Transportation Analysis Model (WRSATM) has been used to forecast the future traffic volumes in this report. The modeled **Proposed Land Use Plan** Scenario roadway system is based on the City Council Directed Plan Scenario roadway system that was recommended in the previous traffic study, with some additional modifications per discussion with City staff. The modifications to the City Council Directed Plan Scenario roadway network are illustrated on Exhibit F. The additional modifications include:

- Including a 2-Lane Divided Collector on the east side of the I-15 Freeway between Lake Street and Nichols Road
- Upgrading of Nichols Road from a 4-Lane Major Arterial to a 6-Lane Urban Arterial between Lake Street and Alberhill Ranch Road
- Downgrading of unnamed Secondary Arterial (intersecting Riverside Street) to a Collector level roadway
- Elimination of unnamed connection from Canyons Hills Road to the north
- Downgrading of Canyon Estates Drive (between Franklin Street to Summerhill Drive) from a Secondary Arterial to a Collector level roadway

Exhibit G illustrates the Proposed Land Use Plan's roadway system that was used for traffic modeling purposes. The Proposed Land Use Plan's roadway classifications are depicted on Exhibit H. Additional information such as the incorporation of pedestrians, bike paths, transit, and intersection improvements into the Proposed Land Use Plan will be discussed in a latter portion of this report.

As shown and as discussed with City staff, not all Collector level roadways are illustrated on any of the General Plan Circulation Element roadway system exhibits in this report. In addition, there are certain areas of the City where providing appropriate circulation is challenging. One example is the access to Temescal Canyon High School from the north (to and from Nichols Road). Access is currently provided via local residential streets (El Toro Road), and alternative access is difficult due to topographic constraints.

Two separate Collector roadway cross-sections are shown on Exhibit H, reflecting different utilization of the same curb to curb width and right of way. One option (consistent with the Currently Adopted General Plan) shown provides 4 travel lanes (2 through lanes in each direction), which would maximize the capacity of the roadway. However, widening at key intersections to accommodate dedicated left turn lanes would be necessary under this configuration. The second option includes a single through travel lane in each direction, allowing the additional roadway width to be used to provide a dedicated left turn lane / center median and bike lanes on each side of the roadway. It is recommended that the striping of Collector roadways be undertaken as directed by the City Engineer.

SOCIOECONOMIC DATA (SED) CONVERSION

Land use data has been obtained from a number of adopted Specific Plans, as well as the Proposed Land Use plan land use map for areas where an adopted Specific Plan is not in place. Urban Crossroads, Inc. prepared a letter report (dated May 16, 2011) to document the recommended input data (including SED conversion factors) for City review and approval. The May 16, 2011 report is included in this report as Attachment "A". Generalized data conversion factors have been applied to both the Specific Plan data (where necessary) and the Land Use Map data. Table 1 summarizes the data conversion factors used to convert acres of land use to the desired socioeconomic data (SED) input variables used by the WRSATM. The key SED variables include:

- Single Family (detached) Households
- Multiple Family (attached) Households
- Population
- Retail Employment
- Total Employment

The factors shown in Table 1 have been reviewed with the project team and adjusted (compared to the conversion factors used in the analysis previously published in June, 2009) to ensure consistency with other components of the General Plan update technical analyses. Additional generalized conversion factors for non-residential uses that allow conversion of building square feet of non-residential use to SED are presented on Table 2. These factors are particularly useful in cases where a Specific Plan entitles a known quantity (building square footage) of non-residential development.

Specific Plan data / entitlements have been used for all Specific Plan Areas. The list of known Specific Plans are shown on Table 3. The input data developed to represent the various Specific Plans and the remaining areas represented in the Proposed Land Use plan has been reviewed and approved by City staff.

The final input SED is summarized on Table 3. A total of 97,776 dwelling units are projected at buildout of the City of Lake Elsinore, with a total of 104,119 employees.

TRIP GENERATION

The input data has been used to generate trip generation data which was input to the WRSATM travel demand forecasting tool. The WRSATM was used to develop refined forecasts of daily roadway segment traffic volumes and future peak hour traffic volumes.

The reviewed and approved SED for the Proposed Land Use Plan has been input to the traffic model trip generation procedures. The initial trip generation estimates have been reviewed and adjusted to account for a number of factors. The review and adjustments include consideration of the balance between residential and non-residential land uses, particularly retail uses. The initial trip generation

estimates suggest that the amount of land designated for retail uses is more than double the amount that would be support by residential uses in the surrounding community.

Anticipated reductions in trip generation due to a variety of factors and referenced against the recently published RIVTAM tool have also been applied. The reductions reflect changes in land use intensity and mix, as well as improvements in transportation facilities for various modes of transport other than the automobile. The reductions also reflect factors identified in the census data, such as a typical dwelling unit vacancy rates of between 5 and 10% during typical economic times.

The final trip generation for the City of Lake Elsinore is summarized on Table 5. As shown on Table 5, the Proposed Land Use Plan scenario will generate a total of 1,660,247 trip-ends. Attachment "B" to this report is a summary of trip generation by traffic analysis zone for the City of Lake Elsinore. As demonstrated by the data in Table 5, the City of Lake Elsinore will still be a net attractor (e.g., attractions associated with retail employment exceed productions associated with residential units by between 10 and 24%) of those trip types (Home-Other and Home-Shop) generally associated with retail uses, even accounting for the absorption adjustments described previously.

DAILY TRAFFIC VOLUME FORECASTS

The traffic modeling process and subsequent traffic volume refinement procedures have been performed for the Proposed Land Use Plan scenario. Refinements have been performed where necessary to ensure appropriate conservation of flow between closely spaced intersections (for instance, at freeway interchanges) and to ensure that traffic volumes in the vicinity of specific plans and other areas of interest (such as the 3rd Street annexation area) adequately reflect the anticipated levels of development. Exhibit I presents the Proposed Land Use Plan scenario daily traffic volume forecasts. The highest projected daily traffic volumes are anticipated in the vicinity of the various I-15 Freeway interchanges, including Lake Street, Nichols Road, Central Avenue, Railroad Canyon Road, and Bundy Canyon Road. One of the most notable changes compared to the previously published City Council Directed alternative is in the vicinity of the Lake Street interchange, northeast of the I-15 Freeway, with approximately 29,000 vehicles per day (VPD). The increased daily volumes in the vicinity of the Lake Street interchange is a result of the newly added Collector roadway on the east side of the I-15 Freeway between Lake Street and Nichols Road, as well as the inclusion of Alberhill Ranch Specific Plan land uses northeast of the I-15 Freeway.

FUTURE PEAK HOUR CONDITIONS

Based on coordination with City staff, 20 key study intersections have been evaluated in this letter report. Exhibit J illustrates the 20 intersection analysis locations. The 20 key intersection locations have been selected based on the projected Highway Capacity Manual (HCM) delay calculations and required improvements as identified in the previously published City Council Directed analysis (dated June 2009). The future peak hour AM and PM peak hour traffic volumes at the key intersection analysis locations are presented on Exhibit K and Exhibit L, respectively. Attachment “C” contains the peak hour intersection post processing worksheets.

The traffic volumes (previously presented on Exhibit K and Exhibit L) have been analyzed to determine the improvements needed to provide acceptable peak hour traffic operations at the 20 key intersections. Table 6 summarizes the results of this analysis and also presents the previously published existing conditions and General Plan Preferred alternative results for comparative purposes. Attachment “D” to this report contains the detailed peak hour intersection traffic operations analysis worksheets. Based on the results of the intersection operations analysis, most of the required through lane improvements are consistent with the initial modeled roadway classifications and corresponding cross-sections (previously shown on Exhibit G and Exhibit H, respectively). 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 / Misson Trail may require 4 through lanes and should be upgraded to an Augmented Urban Arterial.

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, it is recommended that this intersection be configured as a through street parallel to the I-15 Freeway, with the overcrossing of the Freeway forming a “T” intersection.

ROADWAY SEGMENT CAPACITY REVIEW

Urban Crossroads, Inc. has also evaluated the roadway segment capacities based on the anticipated Proposed Land Use Plan scenario’s projected daily traffic volumes. Table 7 presents the daily traffic volume capacity values obtained from the *Riverside County Congestion Management Program (CMP)* 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 this 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 following 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

These ranges 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 ratio 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 8 summarizes the Proposed Lane Use Plan scenario daily roadway segment volume/capacity (V/C) evaluation. The daily evaluation results suggest that the following roadways may operate at an unacceptable LOS:

- Temescal Canyon Road, between Horse Thief 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 / Misson 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 recommends these roadway segments be monitored and identified as special study roadways in the General Plan Circulation Element.

The recommended General Plan Circulation Element roadway classifications necessary to support the Proposed Land Use plan are depicted on Exhibit M. The recommended changes are all included on Exhibit M.

COMPLETE STREETS ASSESSMENT

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.

A complete street is a transportation facility that is planned, designed, operated, and maintained to enable safe access for all roadway users; pedestrians, bicyclists, motorists, and transit riders of all ages and abilities must be able to safely move along and across a complete street. Complete streets help facilitate a variety of important community benefits. Some of these benefits are described below:

- Complete streets provide safe travel choices and give people the option to avoid traffic jams while increasing the overall capacity of the transportation network.

- Complete streets encourage healthy physical activity. Public health experts promote walking and bicycling to combat obesity, especially in children.
- Planning for complete streets cuts costs. Integrating sidewalks, bike lanes, transit amenities, and safe crossings into the initial design of a project is more cost-effective than making retrofits later.
- Complete streets can lead to economic revitalization by reducing transportation costs and travel time while increasing property values and job growth in communities.
- Thoughtful design and accommodations for bicyclists and pedestrians reduces the incidence of crashes and improves safety for all transportation users.
- Complete streets foster strong communities where all people feel safe and welcome on the roadways and where walking and bicycling are an essential part of improving public transportation and creating friendly, walkable neighborhoods.

The Complete Streets Act is supported by Caltrans Deputy Directive DD-64-R1. DD-64-R1 memorializes the importance of pedestrian and bicycle facilities to the state's transportation system and outlines responsibilities for Caltrans employees to ensure that travelers of all ages and abilities can move safely and efficiently along and across a network of complete streets throughout the state.

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 (Urban Crossroads, Inc., June 2010).

Urban Crossroads, Inc. has obtained the relevant plans regarding alternative mobility options from the General Plan document and other sources, including facilities for pedestrians, bicyclists, freight (trucks), and transit (including the potential for Metrolink rail service within the City). The following sections discuss each of the currently adopted paths/maps regarding alternative mobility options (to maintain

sustainability) within the City and recommendations to incorporate the currently adopted mobility options into the Proposed Land Use Plan Circulation Element.

Pedestrians

Exhibit N presents the City's Trails Map which is also shown as Figure 2.7 in the City's General Plan dated December 2007). 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 (previously shown as Exhibit H) will provide sidewalks for all of the General Plan roadways that also appear as a "Trail" on the City's Trail Map.

Bicyclists

Exhibit O presents the City's Proposed Bikeway Map which is also shown as Figure 2.6 in the City's General Plan). The City's Proposed Bikeway 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 (previously shown as Exhibit H) will provide sidewalk width for all of the General Plan roadways that are planned to be a bikeway on the City's Bikeway Map.

Truck Routes

Exhibit P illustrates the City's Truck Route Map (dated December 2006). Exhibit P has been reviewed in conjunction with the recommended roadway network for the Proposed Land Use Plan. Based on our 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.

Transit

The Riverside Transit Authority provides a number of transit routes in the City of Lake Elsinore. The City of Lake Elsinore General Plan should include policies supporting the provision of transit service and should incorporate facilities such as bus turnouts and bus stops as necessary to accommodate transit service.

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

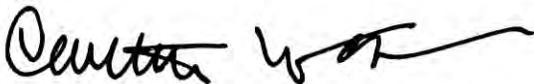
Based on the eight (8) evaluation criteria and analysis, all of these evaluated rail routes did not offer a cost effective or viable commuter rail extension at the time the study was performed (2005). As population trends and demographics change, the feasibility of these routes could then be re-evaluated.

CLOSING

Urban Crossroads, Inc. is pleased to provide this report for your use. Please feel free to call me at (949) 660-1994 x210 if you have any questions or wish to the information contained in this report.

Respectfully submitted,

URBAN CROSSROADS, INC.



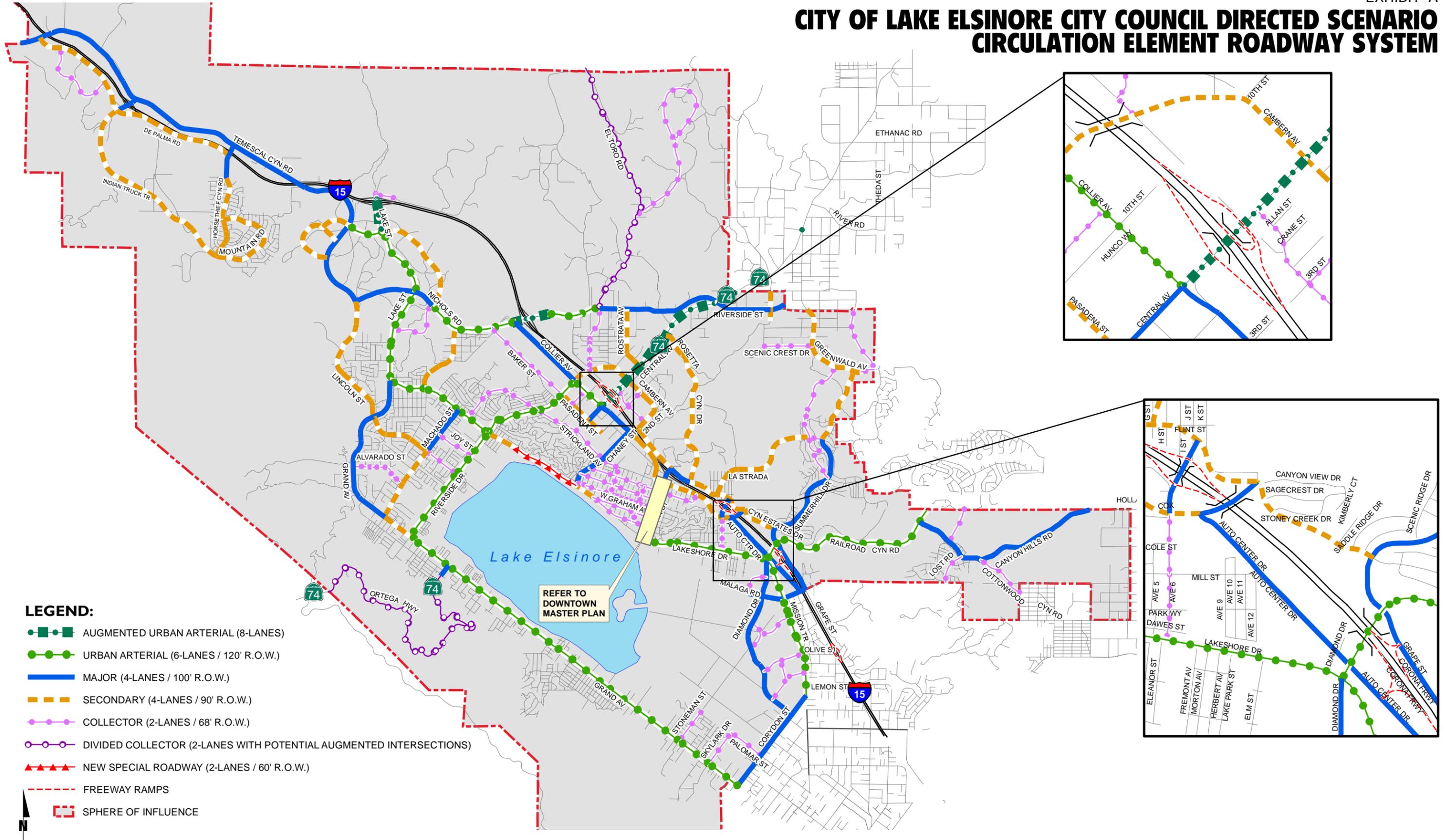
Carleton Waters. P. E.
Principal

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JN:07545-09 Report (Rev)

Attachments

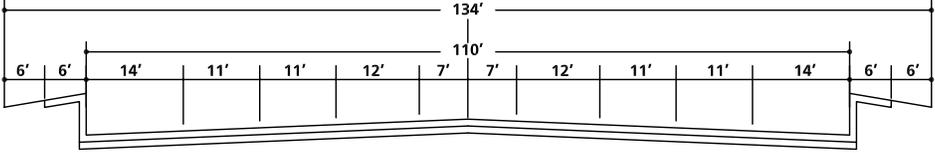
CITY OF LAKE ELSINORE CITY COUNCIL DIRECTED SCENARIO CIRCULATION ELEMENT ROADWAY SYSTEM



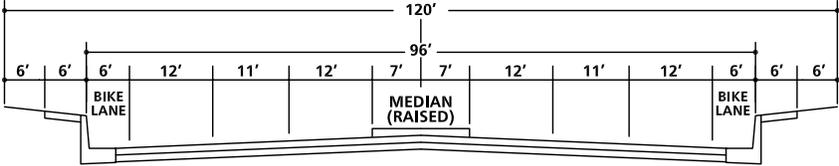
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- URBAN ARTERIAL (6-LANES / 120' R.O.W.)
- MAJOR (4-LANES / 100' R.O.W.)
- - - SECONDARY (4-LANES / 90' R.O.W.)
- COLLECTOR (2-LANES / 68' R.O.W.)
- DIVIDED COLLECTOR (2-LANES WITH POTENTIAL AUGMENTED INTERSECTIONS)
- ▲—▲ NEW SPECIAL ROADWAY (2-LANES / 60' R.O.W.)
- - - FREEWAY RAMPS
- - - SPHERE OF INFLUENCE

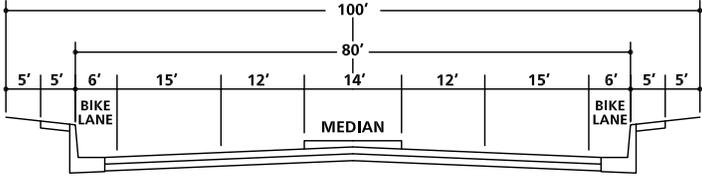
CITY OF LAKE ELSINORE CITY COUNCIL DIRECTED SCENARIO PREVIOUSLY RECOMMENDED ROADWAY CROSS-SECTIONS



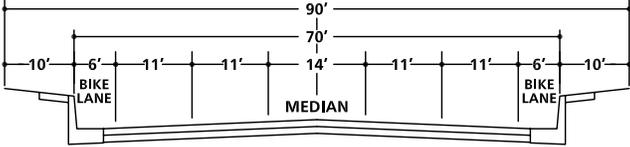
AUGMENTED URBAN ARTERIAL - STATE HIGHWAY
(8-LANE)



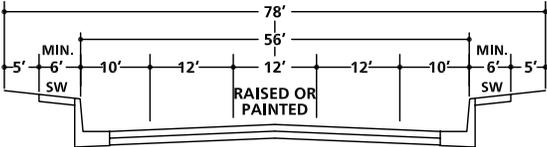
URBAN ARTERIAL HIGHWAY
(6-LANE)



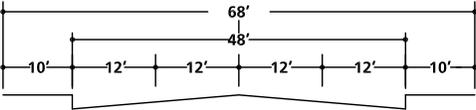
MAJOR HIGHWAY
(4-LANE)



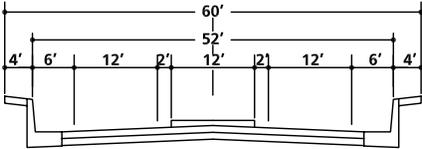
SECONDARY HIGHWAY
(4-LANE)



DIVIDED COLLECTOR
(2-LANE)



COLLECTOR HIGHWAY
(2-LANE)

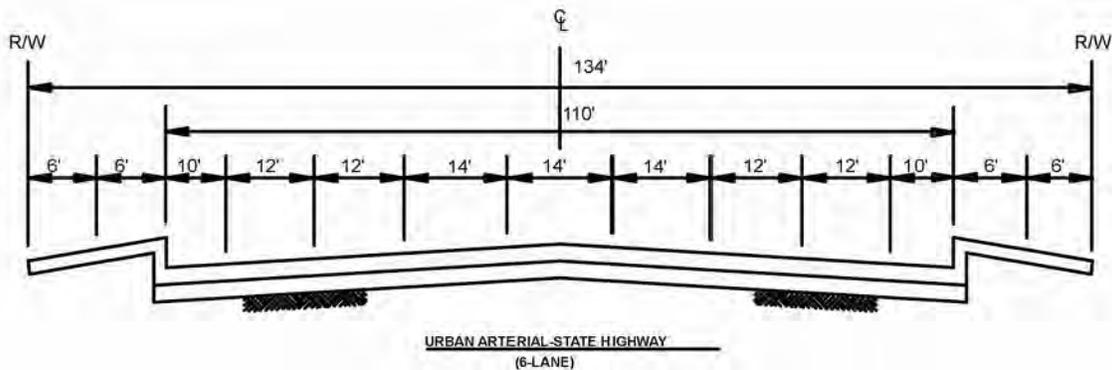
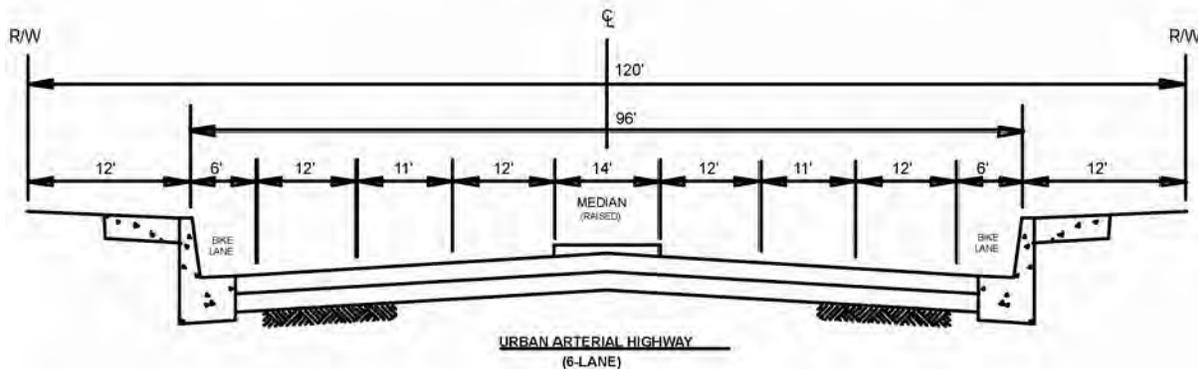
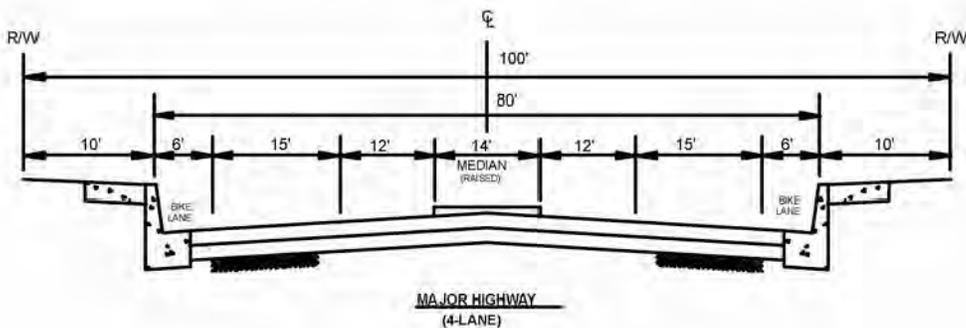
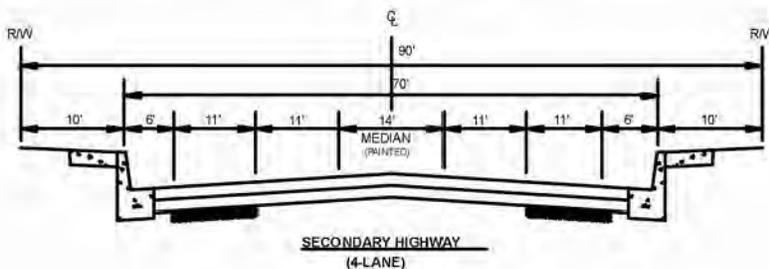
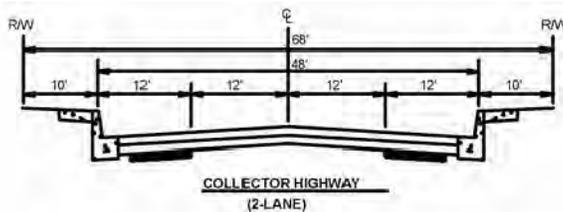


NEW SPECIAL ROADWAY
(2-LANE)

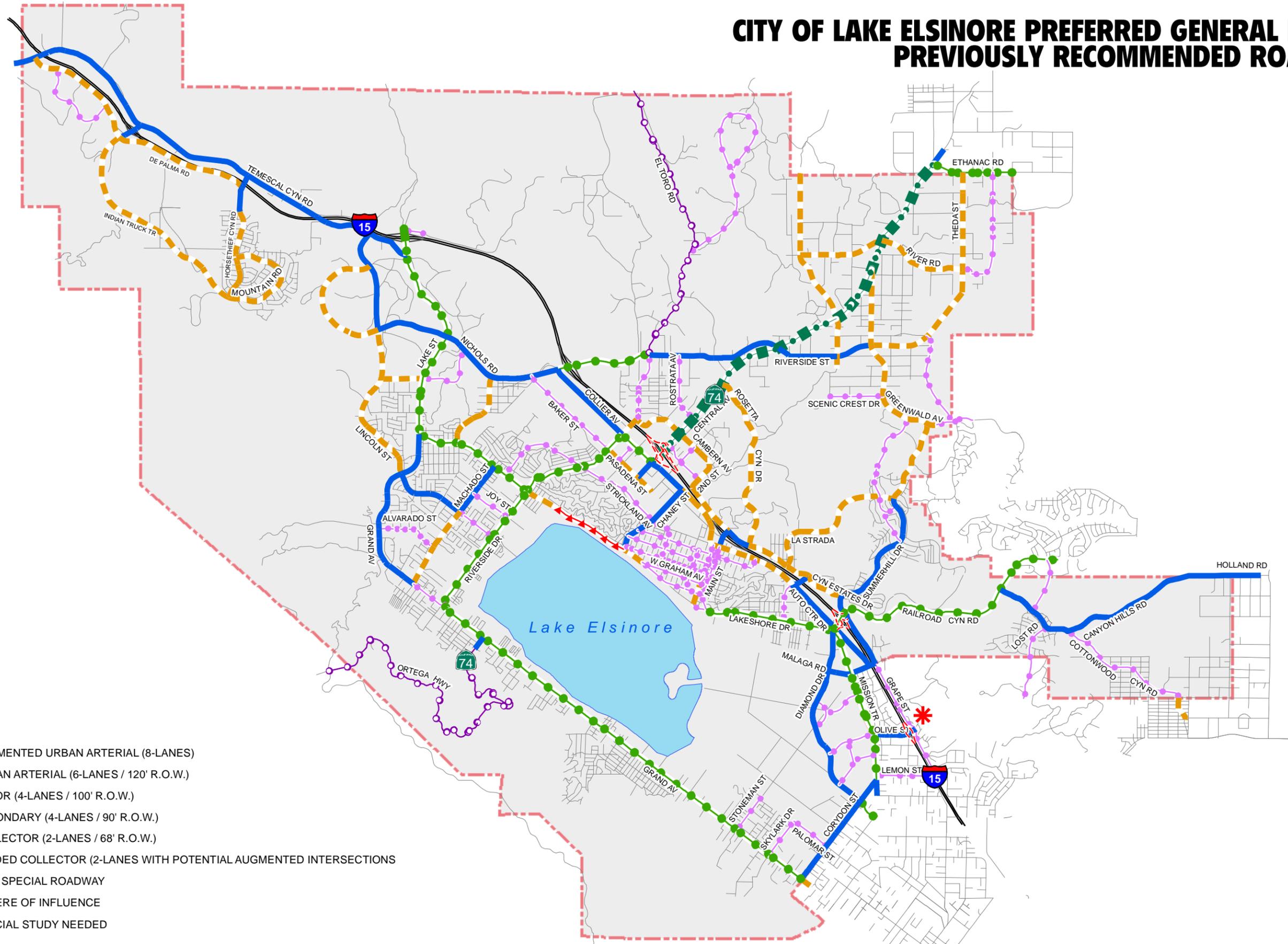
(PROPOSED FOR LAKESHORE DRIVE IN THE COUNTRY CLUB HEIGHT DISTRICT)

* BIKE LANES ARE NOT MANDATORY UNLESS SHOWN ON THE BIKEWAY CIRCULATION ELEMENT PLAN
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.
THESE CROSS-SECTIONS ARE IDENTICAL TO THOSE IN THE PREVIOUSLY RECOMMENDED PREFERRED GENERAL PLAN SCENARIO

CITY OF LAKE ELSINORE CURRENTLY ADOPTED GENERAL PLAN ROADWAY CROSS-SECTIONS

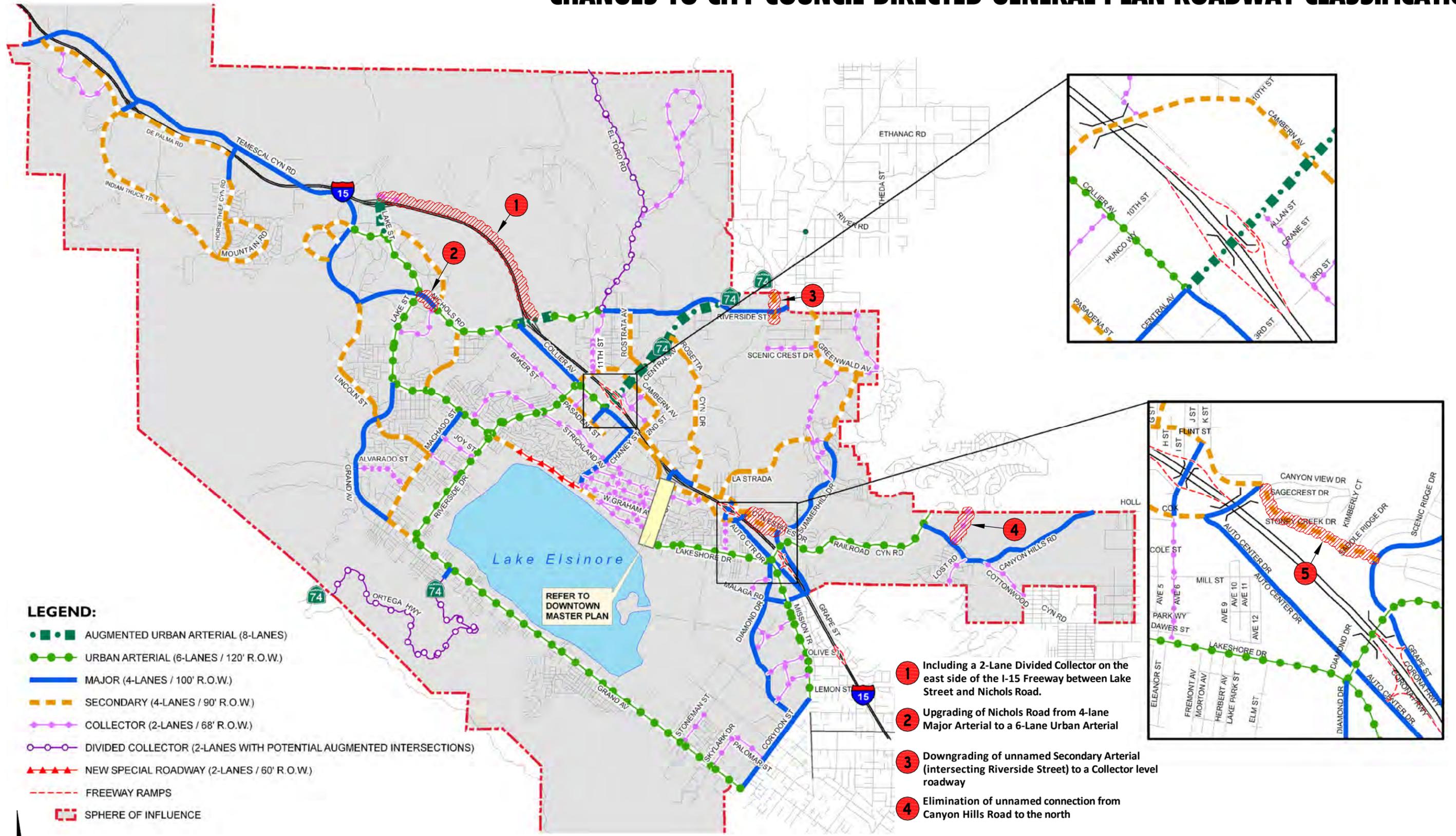


CITY OF LAKE ELSINORE PREFERRED GENERAL PLAN SCENARIO PREVIOUSLY RECOMMENDED ROADWAY SYSTEM



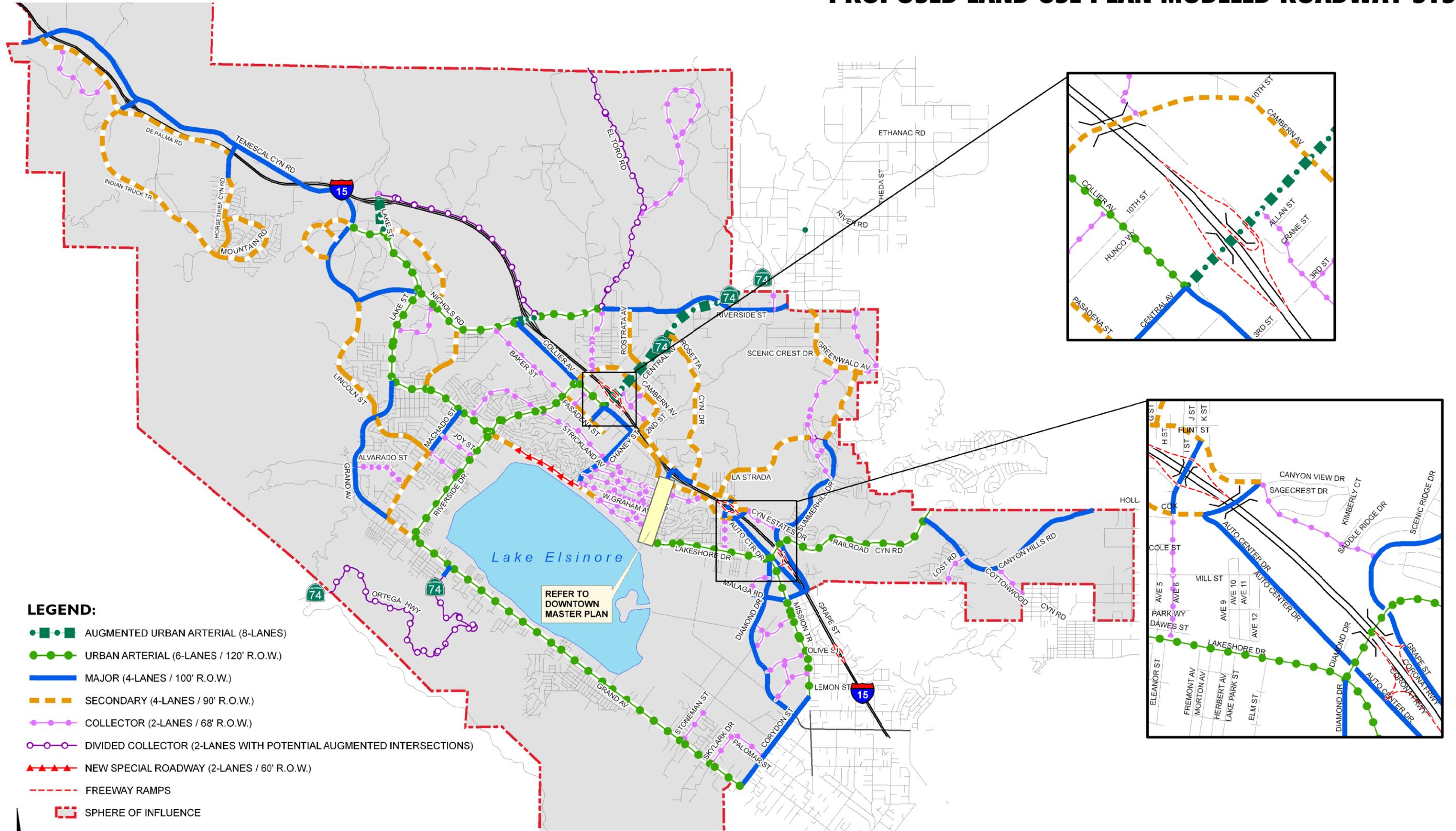
- Legend**
- AUGMENTED URBAN ARTERIAL (8-LANES)
 - URBAN ARTERIAL (6-LANES / 120' R.O.W.)
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 - COLLECTOR (2-LANES / 68' R.O.W.)
 - DIVIDED COLLECTOR (2-LANES WITH POTENTIAL AUGMENTED INTERSECTIONS)
 - ▲▲▲ NEW SPECIAL ROADWAY
 - - - SPHERE OF INFLUENCE
 - * SPECIAL STUDY NEEDED

CHANGES TO CITY COUNCIL DIRECTED GENERAL PLAN ROADWAY CLASSIFICATIONS



NOTE: Roadway System Shown is City Council Recommended Circulation System.

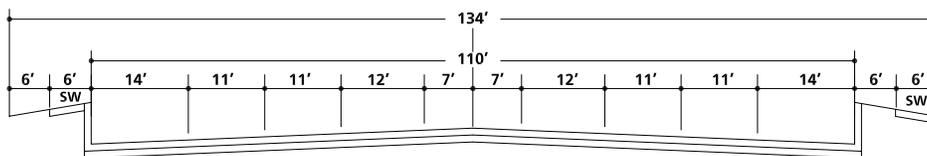
PROPOSED LAND USE PLAN MODELED ROADWAY SYSTEM



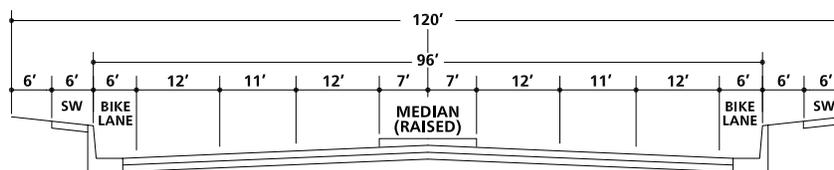
- LEGEND:**
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 - MAJOR (4-LANES / 100' R.O.W.)
 - - - SECONDARY (4-LANES / 90' R.O.W.)
 - ● ● ● COLLECTOR (2-LANES / 68' R.O.W.)
 - ○ ○ ○ DIVIDED COLLECTOR (2-LANES WITH POTENTIAL AUGMENTED INTERSECTIONS)
 - ▲ ▲ ▲ ▲ NEW SPECIAL ROADWAY (2-LANES / 60' R.O.W.)
 - - - FREEWAY RAMPS
 - - - SPHERE OF INFLUENCE

NOTE: Not all Collector roadways are shown.

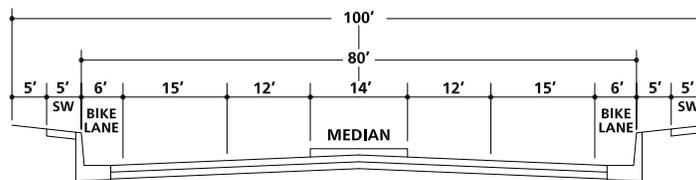
CITY OF LAKE ELSINORE PROPOSED LAND USE PLAN SCENARIO RECOMMENDED ROADWAY CROSS-SECTIONS



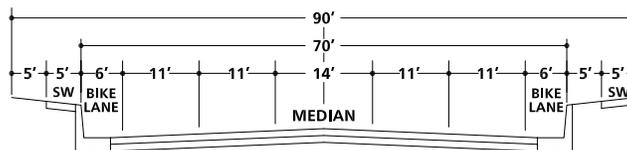
AUGMENTED URBAN ARTERIAL - STATE HIGHWAY
(8-LANE)



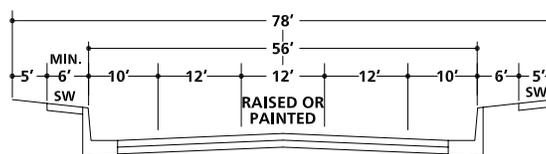
URBAN ARTERIAL HIGHWAY
(6-LANE)



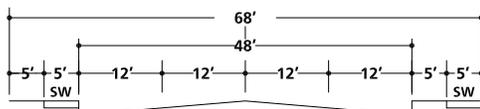
MAJOR HIGHWAY
(4-LANE)



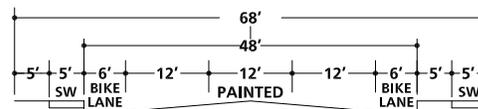
SECONDARY HIGHWAY
(4-LANE)



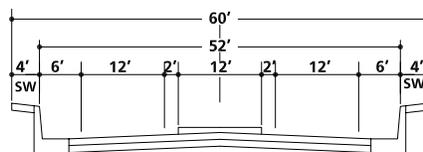
DIVIDED COLLECTOR
(2-LANE)



COLLECTOR HIGHWAY
(4-LANE)



COLLECTOR HIGHWAY
(2-LANE)

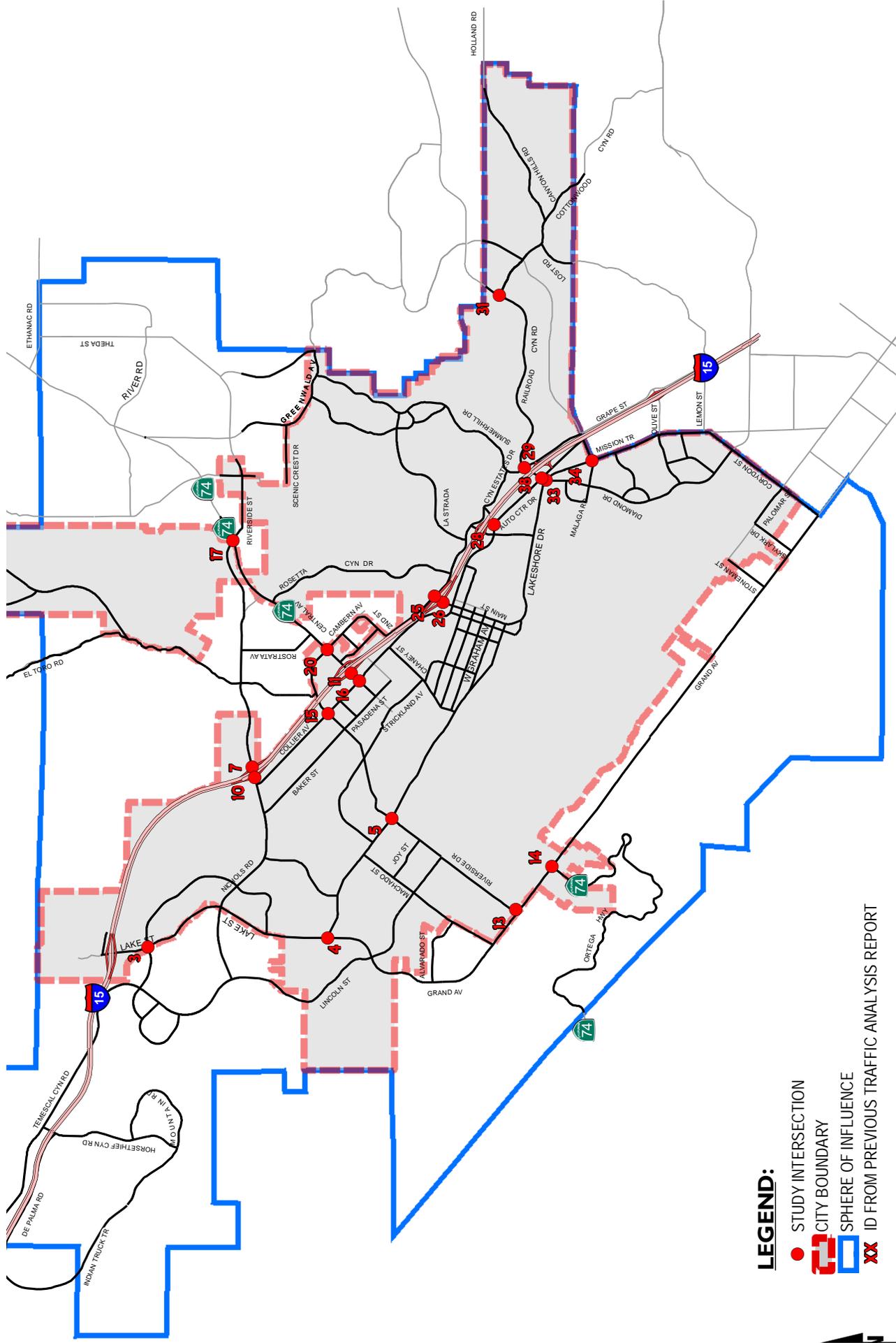


NEW SPECIAL ROADWAY
(2-LANE)

(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.
STRIPING OF COLLECTOR HIGHWAY AS DIRECTED BY CITY ENGINEER.

INTERSECTION ANALYSIS LOCATIONS

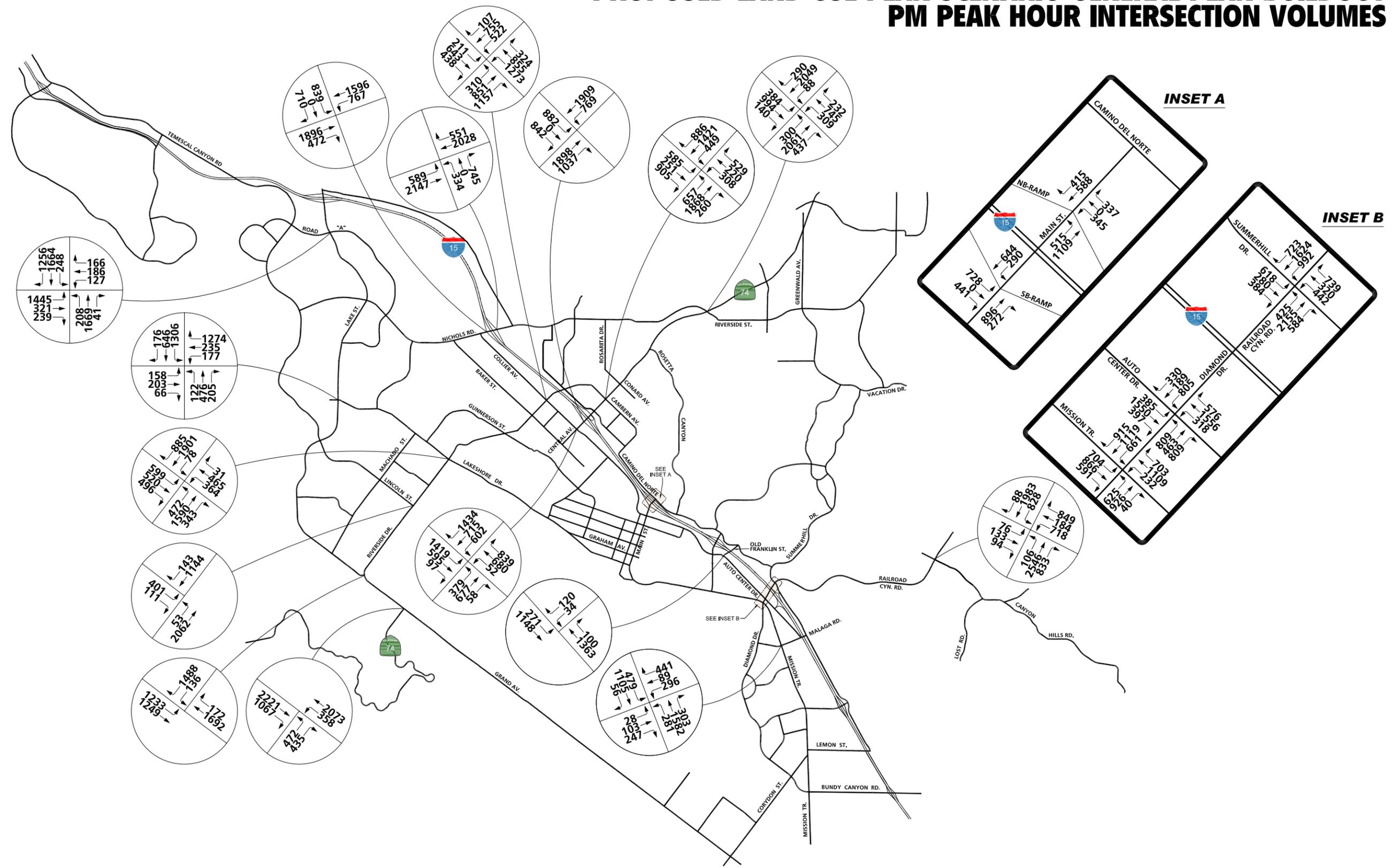


LEGEND:

- STUDY INTERSECTION
- CITY BOUNDARY
- SPHERE OF INFLUENCE
- XX ID FROM PREVIOUS TRAFFIC ANALYSIS REPORT



PROPOSED LAND USE PLAN SCENARIO GENERAL PLAN BUILDOUT PM PEAK HOUR INTERSECTION VOLUMES



PROPOSED LAND USE PLAN RECOMMENDED ROADWAY SYSTEM

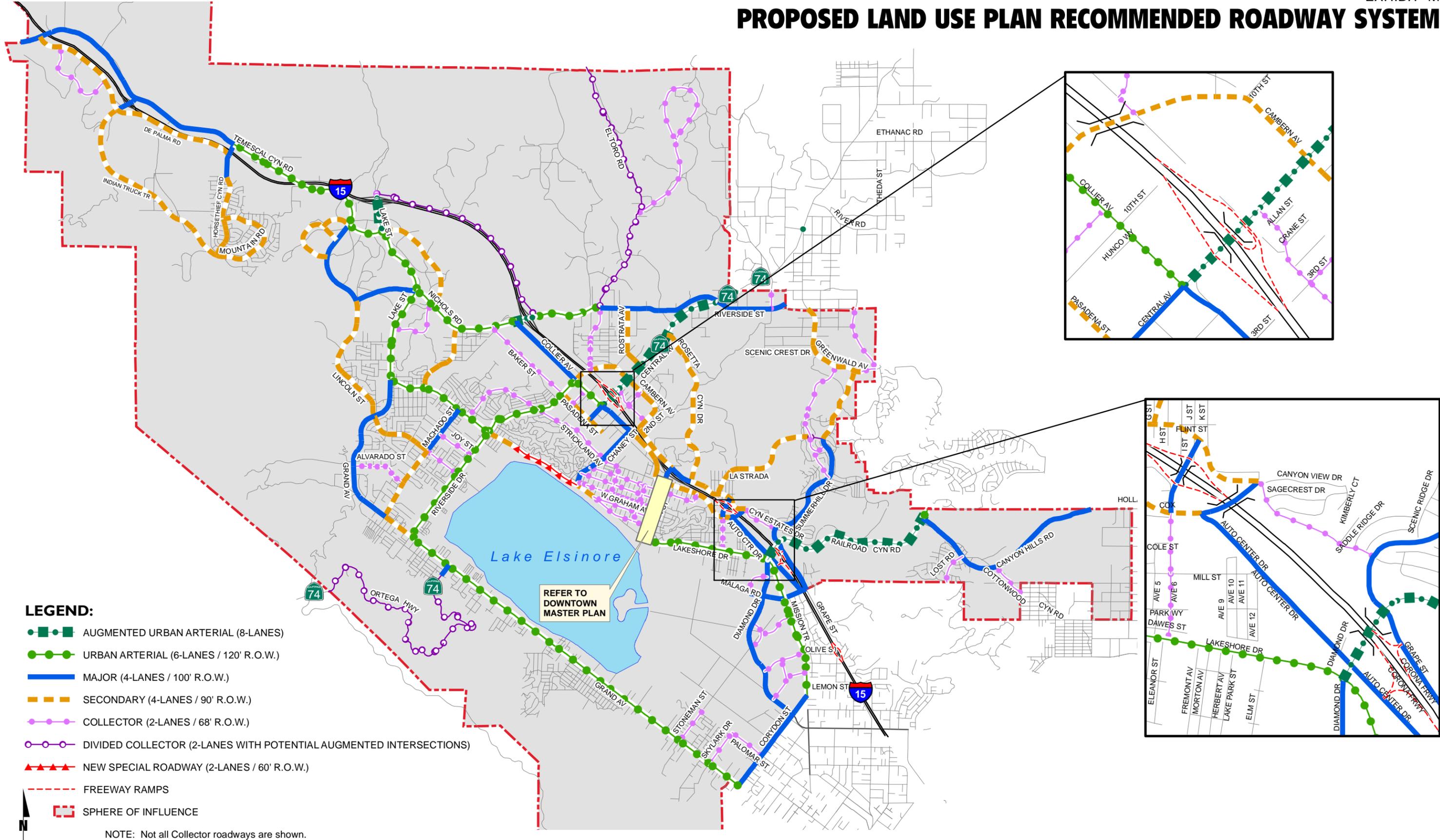
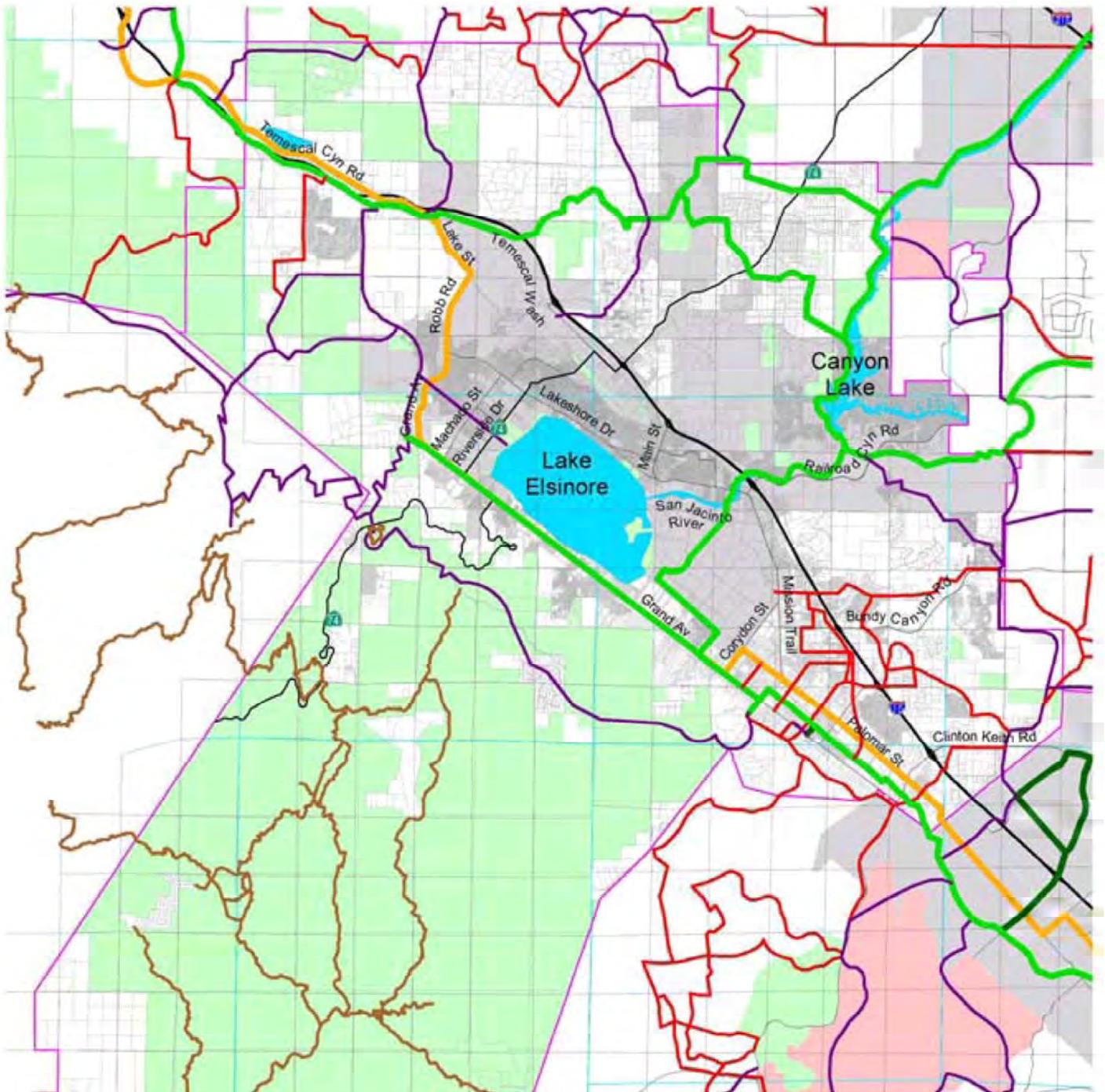


EXHIBIT N
**CITY OF LAKE ELSINORE
 TRAILS AND CLASS 1 BIKEWAYS**

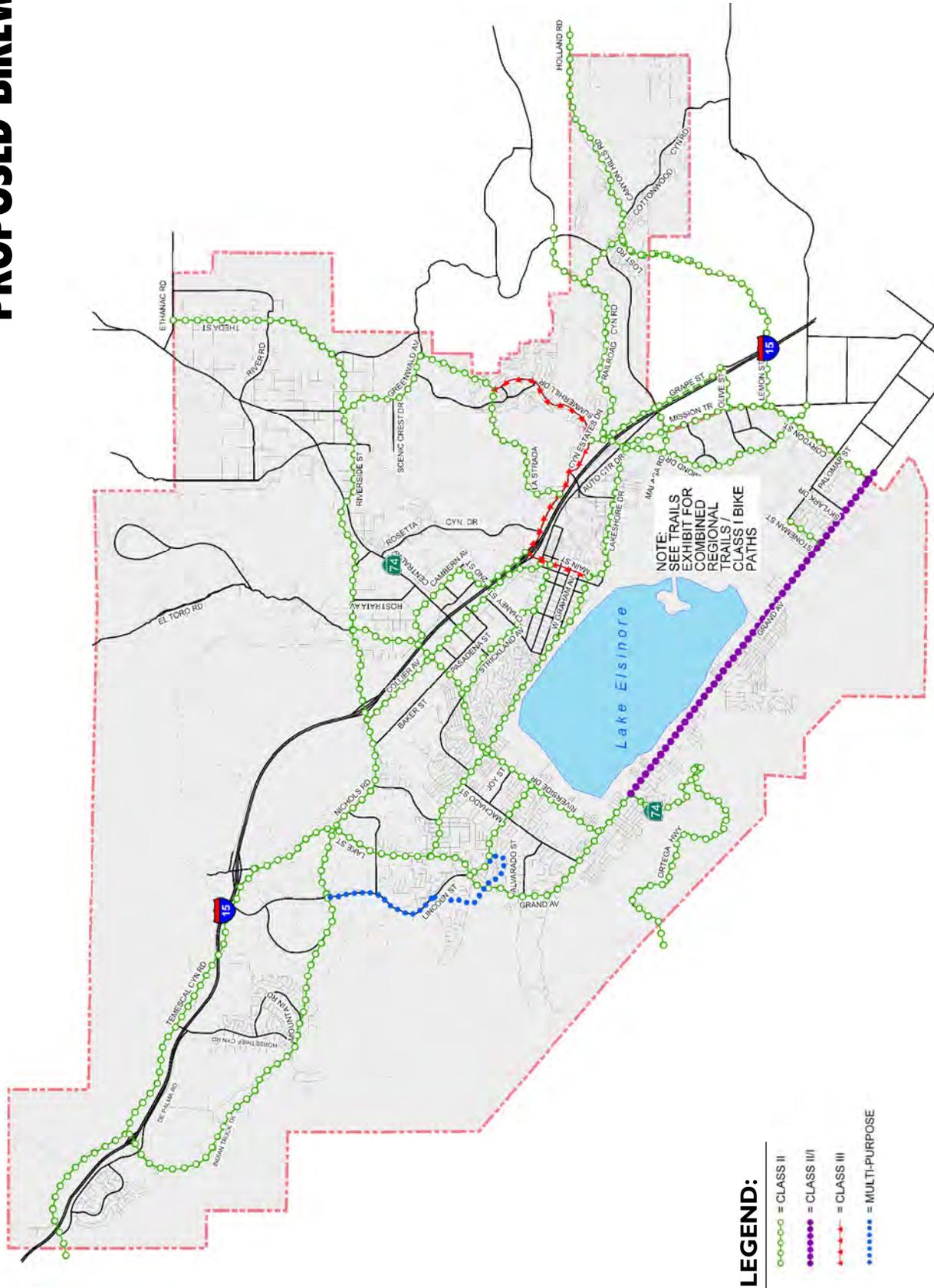


LEGEND:

-  Historic Trail
-  Class 1 Bike Path/Regional Trail
-  Regional Trail
-  Community Trail
-  Class 1 Bike Path
-  National Forest or Park/BLM Trails (non-county)
-  Regional Parks
-  Public/Quasi-Public Lands
-  Water
-  City
-  Area Plan Boundary



EXHIBIT O CITY OF LAKE ELSINORE PROPOSED BIKEWAYS

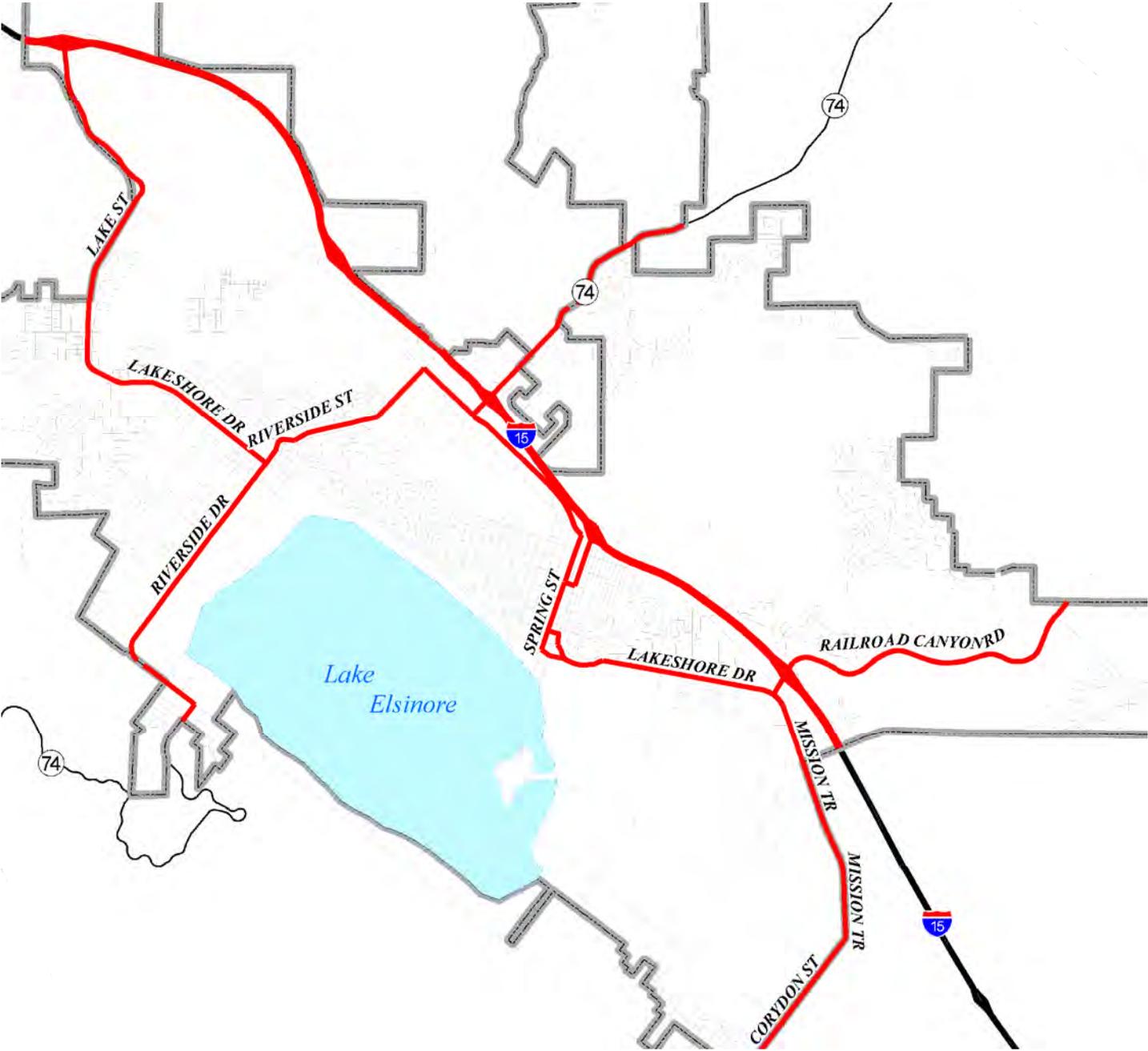


LEGEND:

- = CLASS II
- = CLASS III
- - - = CLASS III
- = MULTI-PURPOSE



EXHIBIT P
**CITY OF LAKE ELSINORE
 TRUCK ROUTE MAP**



LEGEND:

- City Limits
- Truck Routes
- Interstate 15
- Highway 74

- 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)



TABLE 1
LAND USE TO SED CONVERSION FACTORS

GP Land Use	Base Unit	Gross Net to Acre Ratio	Net Density Range	Anticipated Gross Density					Employee/gross AC		Employee/net AC	
				SFDU	MFDU	TOTAL DU	POP Per		Total	Retail	Total	Retail
							SFDU	MFDU				
RESIDENTIAL												
Hillside Residential	ACRES	0.8	0.1 - 1.0 DU / ACRE	0.25	-	0.25	3.37	-	-	-	-	-
Lakeside Residential	ACRES	0.8	1 - 4 DU / ACRE	3	-	3	3.37	-	-	-	-	-
Low Density	ACRES	0.8	1 - 3 DU / ACRE	3	-	3	3.37	-	-	-	-	-
Low Medium	ACRES	0.8	1 - 6 DU / ACRE	5	-	5	3.37	-	-	-	-	-
Medium Density	ACRES	0.8	7 - 18 DU / ACRE	12	12	24	3.37	3.37	-	-	-	-
High Density	ACRES	0.8	possible bonus to 35 DU/1 ACRE	-	21	21	-	3.37	-	-	-	-
COMMERCIAL												
Comm Neighborhood	ACRES	0.8	-	-	-	-	-	-	25	22	31	28
Comm General	ACRES	0.8	-	-	-	-	-	-	26	21	33	26
Gateway Comm	ACRES	0.8	-	-	-	-	-	-	61	3	77	4
Comm Tourist	ACRES	0.8	-	-	-	-	-	-	27	19	34	24
INDUSTRIAL												
Fwy Business	ACRES	0.8	-	-	-	-	-	-	28	0	35	0
Ind Ltd	ACRES	0.8	-	-	-	-	-	-	26	0	33	0
OFFICE												
Ind BP	ACRES	0.8	-	-	-	-	-	-	33	2	41	2
Public Institution	ACRES	0.8	-	-	-	-	-	-	15	2	19	2
MIXED USE												
Commercial MU	ACRES	0.8	60% Commercial	-	-	-	-	-	16	13	20	16
		0.8	40% Residential	-	10	-	-	3.37	-	-	-	-
		0.8	20% Commercial	-	-	-	-	-	5	4	7	5
Residential MU	ACRES	0.8	80% Residential	-	21	-	-	3.37	-	-	-	
OTHER												
School	ACRES	-	-	-	-	-	-	-	2.5	0	2.5	0
Recreation	ACRES	-	-	-	-	-	-	-	2.2	0.3	2.2	0.3
Downtown Recreation	ACRES	-	-	-	-	-	-	-	4.4	3.6	4.4	3.6
Airport	ACRES	-	-	-	-	-	-	-	0.5	0.0	0.5	0.0

TABLE 2

NON-RESIDENTIAL LAND USE TO SED CONVERSION FACTORS

	Gross to Net Acre Ratio	%	Description	FAR	s.f./Acre	s.f./Employee	Employee/gross AC		Employee/net AC	
							Total	Retail	Total	Retail
Commercial										
Neighborhood	0.8			0.25	8,712	350	25	22	31	28
General	0.8			0.30	10,454	400	26	21	33	26
Gateway	0.8			0.75	26,136	425	61	3	77	4
Tourist	0.8			0.35	12,197	450	27	19	34	24
Industrial										
Fwy Business	0.8			0.40	13,939	500	28	0	35	0
Lim. Industrial	0.8			0.45	15,682	600	26	0	33	0
Office										
Ind. BP	0.8			0.40	13,939	425	33	2	41	2
Public Institutional	0.8			0.20	6,970	450	15	2	19	2
Mixed Use										
Commercial MU	0.8	60%	Commercial	0.30	6,273	400	16	13	20	16
	0.8	40%	Residential							
Residential MU	0.8	20%	Commercial	0.30	2,091	400	5	4	7	5
	0.8	80%	Residential							
Other										
School	---						2.5	0.0	2.5	0.0
Recreation	---						2.2	0.3	2.2	0.3
Downtown Recreation	---						4.4	3.6	4.4	3.6
Airport (not used)	---						0.5	0.0	0.5	0.0

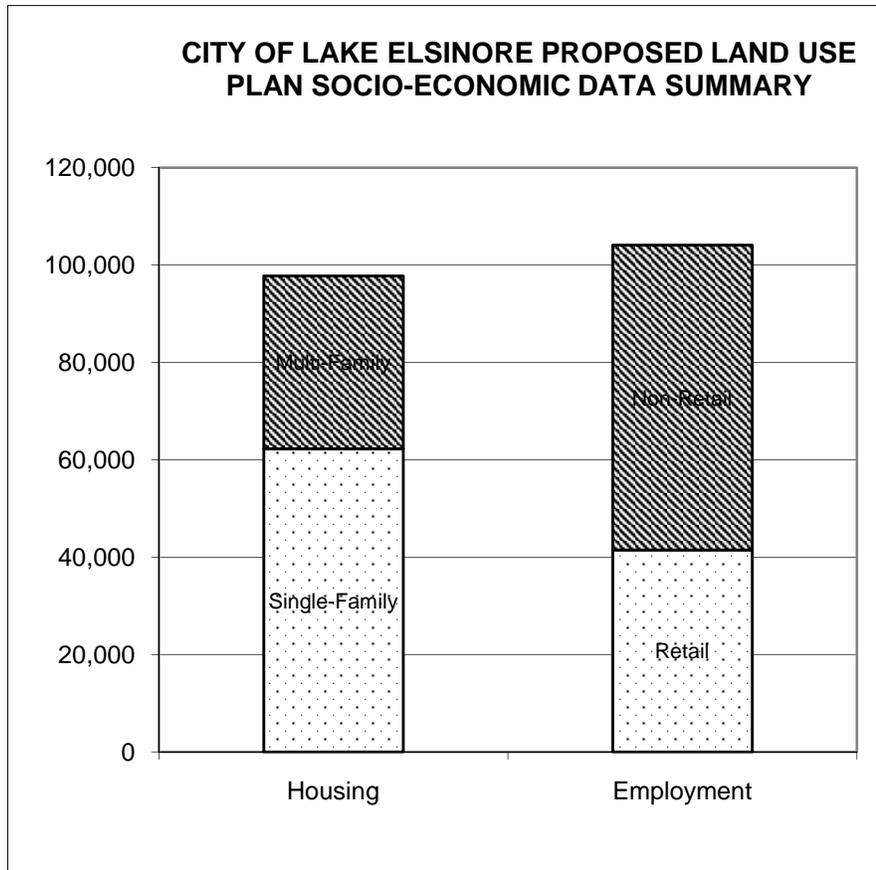
U:\UcJobs\07100-07500\07500\07545\Excel\07545-09 Report (Rev).xls]T 2

TABLE 3**SPECIFIC PLAN SUMMARY**

SPECIFIC PLAN NAME	DISTRICT(S)
Alberhill Ranch	Alberhill
North Alberhill Ranch ¹	Alberhill
Canyon Creek "Summerhill"	Lake Elsinore Hills, Riverview
Canyon Creek "La Strada"	Lake Elsinore Hills
Canyon Hills	Lake Elsinore Hills
Canyon Hills Estates	Lake Elsinore Hills
Cape of Good Hope	Lake View
Cottage Lane	Lake Edge
Diamond	Ball Park
East Lake SP	East Lake
Elsinore City Center	Lake Elsinore Hills
La Laguna Estates	Lake View
Lakeshore Villages	Lake View
Murdoch Alberhill Ranch	Alberhill
North Peak	North Peak
Outlet Center Expansion	Business District
Ramsgate	Lake Elsinore Hills
Spyglass Ranch	Lake Elsinore Hills
Tuscany Hills North & South	Lake Elsinore Hills
Villages at Lakeshore	Lake View
Pac Clay	Alberhill

¹ It was subsequently determined that this area should not be treated as an approved Specific Plan.

TABLE 4



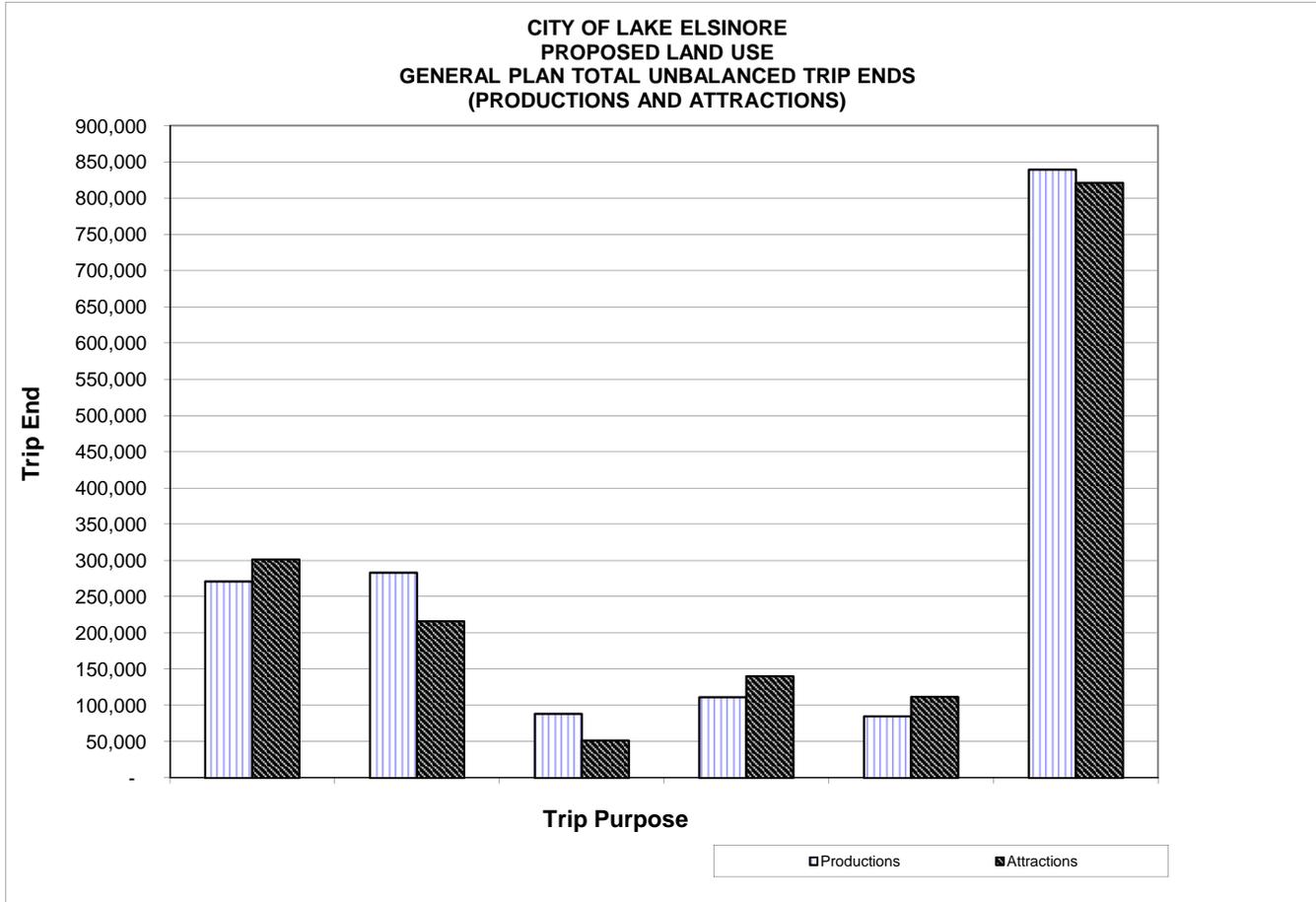
SOCIO-ECONOMIC VARIABLE	UNITS	PROPOSED LAND USE PLAN	UNITS
Single Family Housing	Dwelling Units	62,298	Dwelling Units
Multi Family Housing	Dwelling Units	35,478	Dwelling Units
Total - Housing	Dwelling Units	97,776	Dwelling Units
Population		328,965	
Retail Employment	Employees	41,506	Employees
Non-Retail Employment	Employees	62,613	Employees
Total - Employment	Employees	104,119	Employees

Source: City of Lake Elsinore

Note: Planning Area boundary has changed.

Employee per Household = 1.06

TABLE 5



		HOME-OTHER	OTHER-OTHER	OTHER-WORK	HOME-WORK	HOME-SHOP	TOTAL
PLU¹ GP Alternative	Productions	271,115	283,079	88,381	111,409	85,143	839,127
	Attractions	301,204	216,178	51,743	140,209	111,786	821,120
	TOTAL	572,319	499,257	140,124	251,618	196,929	1,660,247
	P - A	(30,089)	66,901	36,638	(28,800)	(26,643)	18,007
	P/A	0.90	1.31	1.71	0.79	0.76	1.02

¹ PLU = Proposed Land Use Scenario

Note: Planning Area boundary has changed.

Table 6
(1 of 3)

**General Plan Buildout Conditions
Intersection Operations Analysis Summary**

No.	Intersection Name	Traffic Control ³	Intersection Approach Lanes ¹												Average Delay ²		Level of Service ²		LOS Criteria
			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 - Proposed Land Use Plan	CSS TS	0	1	0	0	1	1	0	1	0	0	0	0	41.3	52.8	D	D	D
			<u>2</u>	<u>4</u>	0	<u>2</u>	<u>3</u>	<u>1>></u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1></u>					
4	Lake St. (NS) at: • Lakeshore Dr. (EW) - Existing Geometry - Proposed Land Use Plan	TS TS	1	2	1	2	2	1	0	2	0	1	1	2>	39.2	42.3	D	D	D
			1	2	1	2	2	1	0	2	0	1	1	<u>1>></u>					
5	Lakeshore Dr. (NS) at: • Riverside Dr. (EW) - Existing Geometry - Proposed Land Use Plan	TS TS	1	2	0	1	2	1	1	2	1	1	1	1	40.5	49.4	D	D	D
			<u>2</u>	<u>3</u>	0	<u>2</u>	<u>2</u>	<u>1></u>	<u>2</u>	<u>3</u>	0	1	<u>2.5</u>	<u>1.5</u>					
7	I-15 NB Ramps (NS) at: • Nichols St. (EW) - Existing Geometry - Proposed Land Use Plan	CSS TS	1	0	1	0	0	0	1	1	0	0	1	0	25.5	26.5	C	C	D
			1	0	<u>1>></u>	0	0	0	<u>2</u>	<u>3</u>	0	0	<u>3</u>	<u>1>></u>					
10	I-15 SB Ramps (NS) at: • Nichols St. (EW) - Existing Geometry - Proposed Land Use Plan	CSS TS	0	0	0	1	0	1	0	1	<u>1>></u>	1	1	0	34.5	39.9	C	D	D
			0	0	0	<u>2</u>	0	<u>2</u>	0	<u>3</u>	<u>1>></u>	<u>2</u>	<u>3</u>	0					
11	I-15 SB Ramps (NS) at: • Central Av. (EW) - Existing Geometry - Proposed Land Use Plan	TS TS	0	0	0	1	0	1	0	2	0	1	2	0	27.1	33.9	C	C	D
			0	0	0	<u>2</u>	0	<u>2</u>	0	<u>3</u>	<u>2</u>	<u>2</u>	<u>3</u>	0					
13	Grand Av. (NS) at: • Grand Av.-Riverside Dr. (EW) - Existing Geometry - Proposed Land Use Plan	CSS TS	0	0	0	1	0	1	1	1	0	0	1	1	20.5	30.0	C	C	D
			0	0	0	1	0	<u>1>></u>	<u>2</u>	<u>3</u>	0	0	<u>3</u>	0					
14	Grand Av. (NS) at: • Ortega Hwy./SR-74 - Existing Geometry - Proposed Land Use Plan	AWS TS	0	1	0	0	1	<u>1>></u>	1	0	<u>1>></u>	0	0	0	34.8	20.4	C	C	D
			<u>2</u>	<u>3</u>	0	0	<u>3</u>	<u>1>></u>	<u>2</u>	0	<u>1>></u>	0	0	0					
15	Collier Av. (NS) at: • Riverside Dr. (EW) - Existing Geometry - Proposed Land Use Plan	TS TS	1	1	0	1	1	1	0.5	0.5	1	0	1	0	33.5	44.9	C	D	D
			<u>3</u>	<u>2</u>	0	<u>2</u>	<u>3</u>	<u>1></u>	<u>2</u>	<u>2</u>	<u>2></u>	<u>2</u>	<u>3</u>	0					

Table 6
(2 of 3)

**General Plan Buildout Conditions
Intersection Operations Analysis Summary**

No.	Intersection Name	Traffic Control ³	Intersection Approach Lanes ¹												Average Delay ²		Level of Service ²		LOS Criteria	
			Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM		
			L	T	R	L	T	R	L	T	R	L	T	R						
16	Collier Av. (NS) at:																			
	• Central Av. (EW)																			
	- Existing Geometry	TS	1	1	1	2	2	1	2	2	0	2	1	2>						
	- 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>	<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	TS	<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 Av. (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	TS	<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	TS	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:																			
	• Auto Center Dr. (EW)																			
	- Existing Geometry	CSS	0	0	0	1	0	1	0	1	0	0	1	1						
	- Proposed Land Use Plan	TS	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 Cyn. Rd. (EW)																			
	- Existing Geometry	TS	2	2	1	1	1	1>	2	2	0	1	3	0						
	- Proposed Land Use Plan	TS	2	2	<u>2></u>	<u>2</u>	1	<u>2</u>	<u>1.5</u>	<u>3.5</u>	<u>1></u>	<u>2.5</u>	<u>3.5</u>	<u>2></u>	45.7	54.2	D	D		
31	Railroad Cyn. Rd. (NS) at:																			
	• Canyon Hills Rd. (EW)																			
	- Existing Geometry	TS	0	3	1	1	3	0	0	0	0	2	0	1						
	- Proposed Land Use Plan	TS	<u>1</u>	<u>4</u>	<u>1></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></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						
	- Proposed Land Use Plan	TS	<u>2</u>	<u>3</u>	1	2	<u>3</u>	<u>2></u>	<u>2</u>	<u>3</u>	<u>1></u>	1	<u>3</u>	<u>2></u>	35.6	46.1	D	D		

Table 6
(3 of 3)

**General Plan Buildout Conditions
Intersection Operations Analysis Summary**

Intersection		Traffic Control ³	Intersection Approach Lanes ¹												Average Delay ²		Level of Service ²		LOS Criteria
			Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM	
No.	Name		L	T	R	L	T	R	L	T	R	L	T	R					
34	Mission Trail (NS) at:																		
	• Malaga Rd. (EW)																		
	- 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 Ctr. Dr.-Casino Dr. (NS) at:																		
	• Railroad Cyn. Rd. (EW)																		
	- Existing Geometry	TS	1	2	0	1	2	0	1	3	0	2	2	0					D
	- Proposed Land Use Plan	TS	2	2	2>	2	2	2	2	3	1>	2	3	1>	35.7	49.9	D	D	

¹ 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;

² 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 singlelane) are shown.

³ CSS = Cross Street Stop; TS = Traffic Signal

**TABLE 7
LINK VOLUME CAPACITIES / LEVEL OF SERVICE
FOR RIVERSIDE COUNTY ROADWAYS¹**

ROADWAY CLASSIFICATION	NUMBER OF LANES	MAXIMUM TWO-WAY TRAFFIC VOLUME (ADT) ²
		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

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 8
(Page 1 of 7)

**GENERAL PLAN BUILDOUT CONDITIONS - PROPOSED LAND USE PLAN
HIGHWAY LINK / ROADWAY CAPACITY ANALYSIS**

ROADWAY	FROM	TO	CLASSIFICATION	LOS "E" CAPACITY	AVERAGE DAILY TRAFFIC	V/C	CAPACITY CALCULATION
Temescal Canyon	N of Indian Truck Tr.	Indian Truck Tr.	Major	34,100	19,000	0.56	Acceptable
Temescal Canyon	Indian Truck Tr.	Horse Thief Canyon Rd.	Major	34,100	31,000	0.91	Approaching Capacity
Temescal Canyon	Horse Thief Canyon Rd.	S of Horse Thief Canyon Rd.	Major	34,100	50,000	1.47	Deficient
Temescal Canyon	N of Road "A"	Road "A"	Major	34,100	48,000	1.41	Deficient
Temescal Canyon	Road "A"	S of Road "A"	Major	34,100	32,000	0.94	Approaching Capacity
Temescal Canyon	Road "A"	Nichols Rd.	Major	34,100	27,000	0.79	Acceptable
Temescal Canyon	N of Nichols Rd.	Nichols Rd.	Major	34,100	30,000	0.88	Approaching Capacity
Lincoln St.	Nichols Rd.	S of Nichols Rd.	Secondary	25,900	26,000	1.00	Approaching Capacity
Lincoln St.	N of Lake St.	Lake St.	Secondary	25,900	22,000	0.85	Approaching Capacity
Lincoln St.	Lake St.	Machado St.	Secondary	25,900	8,000	0.31	Acceptable
Lincoln St.	Machado St.	Riverside Dr.	Collector	13,000	4,000	0.31	Acceptable
De Palma Rd.	N of Indian Truck Tr.	Indian Truck Tr.	Secondary	25,900	5,000	0.19	Acceptable
De Palma Rd.	Indian Truck Tr.	S of Indian Truck Tr.	Secondary	25,900	11,000	0.42	Acceptable
De Palma Rd.	N of Horse Thief Canyon Rd.	Horse Thief Canyon Rd.	Secondary	25,900	3,000	0.12	Acceptable
Indian Truck Tr.	De Palma Rd.	Horse Thief Canyon Rd.	Secondary	25,900	3,000	0.12	Acceptable
Horse Thief Canyon Rd.	De Palma Rd.	S of De Palma Rd.	Major	34,100	38,000	1.11	Potentially Exceeds Capacity
Horse Thief Canyon Rd.	N of Mountain Rd.	Mountain Rd.	Secondary	25,900	26,000	1.00	Approaching Capacity
Horse Thief Canyon Rd.	Mountain Rd.	Mountain Rd.	Secondary	25,900	5,000	0.19	Acceptable
Mountain Rd.	Horse Thief Canyon Rd.	E of Horse Thief Canyon Rd.	Secondary	25,900	22,000	0.85	Approaching Capacity
Road "A"	W of Temescal Canyon	Temescal Canyon	Secondary	25,900	10,000	0.39	Acceptable
Road "A"	Temescal Canyon	Lake St.	Urban Arterial	53,900	45,000	0.83	Approaching Capacity
Road "A"	Lake St.	Nichols Rd.	Secondary	25,900	14,000	0.54	Acceptable
Alberhill Ranch Rd.	Lake St.	Nichols Rd.	Collector	13,000	3,000	0.23	Acceptable
Lake St.	Walker Canyon Rd.	I-15 NB Ramps	Augmented Urban Arterial	71,800	29,000	0.40	Acceptable

TABLE 8
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**GENERAL PLAN BUILDOUT CONDITIONS - PROPOSED LAND USE PLAN
HIGHWAY LINK / ROADWAY CAPACITY ANALYSIS**

ROADWAY	FROM	TO	CLASSIFICATION	LOS "E" CAPACITY	AVERAGE DAILY TRAFFIC	V/C	CAPACITY CALCULATION
Lake St.	I-15 NB Ramps	I-15 SB Ramps	Augmented Urban Arterial	71,800	53,000	0.74	Acceptable
Lake St.	I-15 SB Ramps	Road "A"	Augmented Urban Arterial	71,800	72,000	1.00	Approaching Capacity
Lake St.	Road "A"	S of Road "A"	Urban Arterial	53,900	41,000	0.76	Acceptable
Lake St.	N of Nichols Rd.	Nichols Rd.	Urban Arterial	53,900	47,000	0.87	Approaching Capacity
Lake St.	Nichols Rd.	Alberhill Ranch Rd.	Urban Arterial	53,900	39,000	0.72	Acceptable
Lake St.	Alberhill Ranch Rd.	Lakeshore Dr.	Urban Arterial	53,900	43,000	0.80	Acceptable
Grand Av.	Lakeshore Dr.	Lincoln St.	Major	34,100	19,000	0.56	Acceptable
Grand Av.	Lincoln St.	Alvarado St.	Major	34,100	36,000	1.06	Potentially Exceeds Capacity
Grand Av.	Alvarado St.	Machado St.	Major	34,100	30,000	0.88	Approaching Capacity
Grand Av.	Machado St.	Riverside Dr.	Secondary	25,900	33,000	1.27	Deficient
Grand Av.	Riverside Dr.	SR-74 / Ortega Hwy.	Urban Arterial	53,900	60,000	1.11	Potentially Exceeds Capacity
Grand Av.	SR-74 / Ortega Hwy.	S of SR-74 / Ortega Hwy.	Urban Arterial	53,900	54,000	1.00	Approaching Capacity
Grand Av.	N of Stoneman St.	Stoneman St.	Urban Arterial	53,900	67,000	1.24	Potentially Exceeds Capacity
Walker Canyon Rd.	Lake St.	E of Lake St.	Divided Collector	18,000	18,000	1.00	Approaching Capacity
Walker Canyon Rd.	N of Nichols Rd.	Nichols Rd.	Divided Collector	18,000	15,000	0.83	Approaching Capacity
Nichols Rd.	Temescal Canyon	Lake St.	Major	34,100	16,000	0.47	Acceptable
Nichols Rd.	Lake St.	Road "A" / Alberhill Ranch Rd.	Urban Arterial	53,900	25,000	0.46	Acceptable
Nichols Rd.	Road "A" / Alberhill Ranch Rd.	Terra Cotta Rd.	Urban Arterial	53,900	41,000	0.76	Acceptable
Nichols Rd.	Terra Cotta Rd.	Baker St.	Urban Arterial	53,900	47,000	0.87	Approaching Capacity
Nichols Rd.	Baker St.	Collier Av.	Urban Arterial	53,900	48,000	0.89	Approaching Capacity
Nichols Rd.	I-15 SB Ramps	I-15 NB Ramps	Augmented Urban Arterial	71,800	55,000	0.77	Acceptable
Nichols Rd.	I-15 NB Ramps	Walker Canyon Rd.	Augmented Urban Arterial	71,800	61,000	0.85	Approaching Capacity
Nichols Rd.	Walker Canyon Rd.	El Toro Rd.	Urban Arterial	53,900	58,000	1.08	Potentially Exceeds Capacity
Nichols Rd.	El Toro Rd.	11th St.	Urban Arterial	53,900	37,000	0.69	Acceptable

TABLE 8
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**GENERAL PLAN BUILDOUT CONDITIONS - PROPOSED LAND USE PLAN
HIGHWAY LINK / ROADWAY CAPACITY ANALYSIS**

ROADWAY	FROM	TO	CLASSIFICATION	LOS "E" CAPACITY	AVERAGE DAILY TRAFFIC	V/C	CAPACITY CALCULATION
Nichols Rd.	11th St.	Rosarita Dr.	Major	34,100	40,000	1.17	Potentially Exceeds Capacity
Nichols Rd.	Rosarita Dr.	E of Rosarita Dr.	Major	34,100	40,000	1.17	Potentially Exceeds Capacity
Nichols Rd.	W of SR-74	SR-74	Major	34,100	33,000	0.97	Approaching Capacity
Riverside St.	SR-74	Steele 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 Dr.	Lake St.	Terra Cotta Rd.	Urban Arterial	53,900	34,000	0.63	Acceptable
Lakeshore Dr.	Terra Cotta Rd.	Machado St.	Urban Arterial	53,900	39,000	0.72	Acceptable
Lakeshore Dr.	Machado St.	Gunnerson St.	Urban Arterial	53,900	32,000	0.59	Acceptable
Lakeshore Dr.	Gunnerson St.	Riverside Dr.	Urban Arterial	53,900	30,000	0.56	Acceptable
Lakeshore Dr.	Riverside Dr.	Chaney St.	Secondary	25,900	16,000	0.62	Acceptable
Lakeshore Dr.	Chaney St.	Graham Av.	Secondary	25,900	17,000	0.66	Acceptable
Limited St.	Lakeshore Dr.	Langstaff St.	Collector	13,000	10,000	0.77	Acceptable
Limited St.	Langstaff St.	Spring St.	Collector	13,000	14,000	1.08	Potentially Exceeds Capacity
Limited St.	Spring St.	Main St.	Collector	13,000	3,000	0.23	Acceptable
Alvarado St.	Grand Av.	Machado St.	Collector	13,000	3,000	0.23	Acceptable
Machado St.	Lakeshore Dr.	Joy St.	Major	34,100	15,000	0.44	Acceptable
Machado St.	Joy St.	Lincoln St.	Major	34,100	13,000	0.38	Acceptable
Machado St.	Lincoln St.	Alvarado St.	Secondary	25,900	12,000	0.46	Acceptable
Machado St.	Alvarado St.	Grand Av.	Secondary	25,900	5,000	0.19	Acceptable
Gunnerson St.	N of Lakeshore Dr.	Lakeshore Dr.	Collector	13,000	3,000	0.23	Acceptable
Gunnerson St.	W of Riverside Dr.	Riverside Dr.	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 Av.	Secondary	25,900	7,000	0.27	Acceptable
Pasadena St.	Central Av.	E of Central Av.	Secondary	25,900	6,000	0.23	Acceptable

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**GENERAL PLAN BUILDOUT CONDITIONS - PROPOSED LAND USE PLAN
HIGHWAY LINK / ROADWAY CAPACITY ANALYSIS**

ROADWAY	FROM	TO	CLASSIFICATION	LOS "E" CAPACITY	AVERAGE DAILY TRAFFIC	V/C	CAPACITY CALCULATION
Collier Av.	Nichols Rd.	Riverside Dr.	Major	34,100	22,000	0.65	Acceptable
Collier Av.	Riverside Dr.	Enterprise Wy.	Urban Arterial	53,900	51,000	0.95	Approaching Capacity
Collier Av.	Enterprise Wy.	Central Av.	Urban Arterial	53,900	55,000	1.02	Potentially Exceeds Capacity
Collier Av.	Central Av.	Chaney St.	Major	34,100	22,000	0.65	Acceptable
Collier Av.	Chaney St.	Minthorn St.	Secondary	25,900	17,000	0.66	Acceptable
Minthorn St.	Collier Av.	Spring St.	Secondary	25,900	17,000	0.66	Acceptable
Flint St.	Spring St.	Main St.	Secondary	25,900	14,000	0.54	Acceptable
Flint St.	Main St.	Rancho St	Secondary	25,900	7,000	0.27	Acceptable
Flint St.	Rancho St	E of Rancho St	Secondary	25,900	8,000	0.31	Acceptable
Flint St.	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
Auto Center Dr.	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
Casino Dr.	I-15 SB Ramps	Malaga Rd.	Major	34,100	13,000	0.38	Acceptable
El Toro Rd.	Nichols Rd.	Dexter Av.	Collector	13,000	7,000	0.54	Acceptable
11th St.	Nichols Rd.	Dexter Av.	Collector	13,000	6,000	0.46	Acceptable
Rosarita Dr.	Nichols Rd.	Conard Av.	Secondary	25,900	13,000	0.50	Acceptable
Conard Av.	Rosarita Dr.	Central Av.	Secondary	25,900	15,000	0.58	Acceptable
Riverside Dr.	N of Collier Av.	Collier Av.	Secondary	25,900	29,000	1.12	Potentially Exceeds Capacity
Riverside Dr.	Collier Av.	Baker St.	Urban Arterial	53,900	59,000	1.09	Potentially Exceeds Capacity
Riverside Dr.	Baker St.	Gunnerson St.	Urban Arterial	53,900	65,000	1.21	Potentially Exceeds Capacity
Riverside Dr.	Gunnerson St.	Lakeshore Dr.	Urban Arterial	53,900	61,000	1.13	Potentially Exceeds Capacity
Riverside Dr.	Lakeshore Dr.	Joy St.	Urban Arterial	53,900	55,000	1.02	Potentially Exceeds Capacity

TABLE 8
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**GENERAL PLAN BUILDOUT CONDITIONS - PROPOSED LAND USE PLAN
HIGHWAY LINK / ROADWAY CAPACITY ANALYSIS**

ROADWAY	FROM	TO	CLASSIFICATION	LOS "E" CAPACITY	AVERAGE DAILY TRAFFIC	V/C	CAPACITY CALCULATION
Riverside Dr.	Joy St.	Lincoln St.	Urban Arterial	53,900	53,000	0.98	Approaching Capacity
Riverside Dr.	Lincoln St.	Grand Av.	Urban Arterial	53,900	34,000	0.63	Acceptable
Central Av.	W of Collier Av.	Collier Av.	Major	34,100	7,000	0.21	Acceptable
Central Av.	Collier Av.	I-15 SB Ramps	Augmented Urban Arterial	71,800	60,000	0.84	Approaching Capacity
Central Av.	I-15 SB Ramps	I-15 NB Ramps	Augmented Urban Arterial	71,800	56,000	0.78	Acceptable
Central Av.	I-15 NB Ramps	Dexter Av.	Augmented Urban Arterial	71,800	56,000	0.78	Acceptable
Central Av.	Dexter Av.	Cambern Av.	Augmented Urban Arterial	71,800	46,000	0.64	Acceptable
Central Av.	Cambern Av.	Conard Av.	Augmented Urban Arterial	71,800	58,000	0.81	Approaching Capacity
Central Av.	Conard Av.	Rosetta Canyon	Augmented Urban Arterial	71,800	48,000	0.67	Acceptable
Central Av.	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 Av.	S of Grand Av	Major	34,100	29,000	0.85	Approaching Capacity
Cambern Av.	Dexter Av.	Central Av.	Secondary	25,900	28,000	1.08	Potentially Exceeds Capacity
Cambern Av.	Central Av.	3rd St.	Secondary	25,900	16,000	0.62	Acceptable
Cambern Av.	3rd St.	2nd St.	Secondary	25,900	7,000	0.27	Acceptable
2nd St.	Cambern Av.	Dexter Av.	Secondary	25,900	9,000	0.35	Acceptable
2nd St.	Dexter Av.	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
Camino Del Norte	Main St.	Rosetta Canyon	Major	34,100	18,000	0.53	Acceptable
Camino Del Norte	Rosetta Canyon	La Strada	Secondary	25,900	25,000	0.97	Approaching Capacity
Camino Del Norte	La Strada	Avenue 6	Secondary	25,900	32,000	1.24	Potentially Exceeds Capacity
Camino Del Norte	Avenue 6	Old Franklin St.	Secondary	25,900	6,000	0.23	Acceptable
Camino Del Norte	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

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**GENERAL PLAN BUILDOUT CONDITIONS - PROPOSED LAND USE PLAN
HIGHWAY LINK / ROADWAY CAPACITY ANALYSIS**

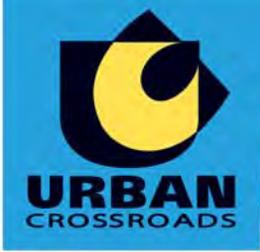
ROADWAY	FROM	TO	CLASSIFICATION	LOS "E" CAPACITY	AVERAGE DAILY TRAFFIC	V/C	CAPACITY CALCULATION
Lakeshore Dr.	Avenue 6	Diamond Dr.	Urban Arterial	53,900	42,000	0.78	Acceptable
Mission Tr.	Diamond Dr.	Malaga Rd.	Urban Arterial	53,900	26,000	0.48	Acceptable
Mission Tr.	Malaga Rd.	Elberta Rd.	Urban Arterial	53,900	27,000	0.50	Acceptable
Mission Tr.	Elberta Rd.	Olive St.	Urban Arterial	53,900	22,000	0.41	Acceptable
Mission Tr.	Olive St.	Lewis St.	Urban Arterial	53,900	28,000	0.52	Acceptable
Mission Tr.	Lewis St.	Lemon St.	Urban Arterial	53,900	29,000	0.54	Acceptable
Mission Tr.	Lemon St.	Bundy Canyon Rd.	Urban Arterial	53,900	19,000	0.35	Acceptable
Rosetta Canyon	Central Av.	E of Central Av.	Secondary	25,900	8,000	0.31	Acceptable
Rosetta Canyon	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	I-15 NB Ramps	Major	34,100	28,000	0.82	Approaching Capacity
Avenue 6	I-15 NB Ramps	I-15 SB Ramps	Major	34,100	31,000	0.91	Approaching Capacity
Avenue 6	I-15 SB Ramps	Flint St.	Major	34,100	32,000	0.94	Approaching Capacity
Avenue 6	Flint St.	Lakeshore Dr.	Collector	13,000	11,000	0.85	Approaching Capacity
Greenwald Av.	Riverside Dr.	Scenic Crest Dr.	Secondary	25,900	21,000	0.81	Approaching Capacity
Greenwald Av.	Scenic Crest Dr.	Via Scenica	Secondary	25,900	20,000	0.77	Acceptable
Greenwald Av.	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 Av.	La Strada	Secondary	25,900	14,000	0.54	Acceptable
Summerhill Dr.	La Strada	Via Scenica	Major	34,100	12,000	0.35	Acceptable
Summerhill Dr.	Via Scenica	Canyon Estaes Dr.	Major	34,100	12,000	0.35	Acceptable
Summerhill Dr.	Canyon Estaes 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
Grape St.	I-15 NB Ramps	S of I-15 NB Ramps	Major	34,100	9,000	0.26	Acceptable

TABLE 8
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**GENERAL PLAN BUILDOUT CONDITIONS - PROPOSED LAND USE PLAN
HIGHWAY LINK / ROADWAY CAPACITY ANALYSIS**

ROADWAY	FROM	TO	CLASSIFICATION	LOS "E" CAPACITY	AVERAGE DAILY TRAFFIC	V/C	CAPACITY CALCULATION
La Strada	Camino Del Norte	N of Camino Del Norte	Secondary	25,900	21,000	0.81	Approaching Capacity
La Strada	N of Camino Del Norte	W of Via Scenica	Secondary	25,900	14,000	0.54	Acceptable
La Strada	W of Via Scenica	Via Scenica	Secondary	25,900	12,000	0.46	Acceptable
La Strada	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
Railroad Canyon Rd.	Summerhill Dr.	E of Summerhill Dr.	Urban Arterial	53,900	67,000	1.24	Potentially Exceeds Capacity
Railroad Canyon Rd.	E of Summerhill Dr.	W of Canyon Hills Dr.	Urban Arterial	53,900	68,000	1.26	Deficient
Railroad Canyon Rd.	W of Canyon Hills Dr.	Canyon Hills Dr.	Urban Arterial	53,900	65,000	1.21	Potentially Exceeds Capacity
Railroad Canyon Rd.	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
Canyon Hills Dr.	Lost Rd.	Cottonwood Canyon Rd.	Major	34,100	25,000	0.73	Acceptable
Canyon Hills Dr.	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
Diamond Dr.	Auto Center Dr.	Mission Tr.	Urban Arterial	53,900	51,000	0.95	Approaching Capacity
Diamond Dr.	Mission Tr.	Malaga Rd.	Major	34,100	42,000	1.23	Potentially Exceeds Capacity
Diamond Dr.	Malaga Rd.	Elberta Rd. N	Major	34,100	29,000	0.85	Approaching Capacity
Diamond Dr.	Elberta Rd. N	Elberta Rd. S	Major	34,100	27,000	0.79	Acceptable
Diamond Dr.	Elberta Rd. S	Olive St.	Major	34,100	22,000	0.65	Acceptable
Diamond Dr.	Olive St.	W of Corydon St.	Major	34,100	18,000	0.53	Acceptable
Diamond Dr.	W of Corydon St.	Corydon St.	Major	34,100	15,000	0.44	Acceptable
Old Franklin St.	Auto Center Dr.	Canyon Estaes Dr.	Major	34,100	5,000	0.15	Acceptable
Corydon St.	Grand Av.	Palomar St.	Major	34,100	37,000	1.09	Potentially Exceeds Capacity
Corydon St.	Palomar St.	Diamond Dr.	Major	34,100	43,000	1.26	Deficient
Corydon St.	Diamond Dr.	Mission Tr.	Major	34,100	11,000	0.32	Acceptable

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June 18, 2009

Mr. Tom Weiner
CITY OF LAKE ELSINORE
130 South Main Street
Lake Elsinore, CA 92530

Subject: City of Lake Elsinore General Plan Update City Council Directed Scenario Traffic Analysis Results

Dear Mr. Weiner:

Urban Crossroads, Inc. is pleased to provide this letter report summarizing the results of our analysis of the City Council Directed (CCD) scenario. This work has been completed in support of the ongoing General Plan update under direction of City staff. This letter report summarizes the key data inputs, as well as the intermediate and final results for the City Council Directed scenario. The results are compared to the currently adopted General Plan and previously published results for the Preferred General Plan scenario contained in the report [City of Lake Elsinore General Plan Traffic Study](#) (Urban Crossroads, Inc., January 24, 2007) to assist the project team and City of Lake Elsinore decision makers in understanding how the results for the CCD scenario differ from the currently adopted General Plan and the previous study results.

BACKGROUND INFORMATION

The information in this letter report has been prepared based on the adopted General Plan Circulation Element at the time the previously published General Plan Update Traffic Study was prepared, as well as the recommended Circulation Element roadway system from the previously published General Plan Update Traffic Study traffic study. The currently adopted Circulation Element roadway system at the time the traffic study was initially prepared (2006) is depicted on Exhibit A. The currently adopted General Plan cross-sections are presented on Exhibit B. The City's General Plan roadway system includes local streets (2 lane undivided roadways) up to an Urban Arterial – State Highway designation (8-lane divided roadway).

Exhibit C presents the City of Lake Elsinore Preferred General Plan Scenario previously recommended roadway system, while Exhibit D presents the City of Lake Elsinore Preferred General Plan Scenario previously recommended roadway cross-sections. The Preferred General Plan Scenario previously recommended key intersection improvements are presented on Exhibit E for ease of reference / informational purposes. The reader is referred to the previously published General Plan update traffic study for a detailed discussion of changes from the currently adopted Circulation Element roadway system embodied in the Preferred General Plan Scenario recommendations.

MODELED ROADWAY SYSTEM

The modeled roadway system for the City Council Directed Scenario is derived from the previously recommended General Plan Preferred Scenario Circulation Element roadway system. The roadway system that has been modeled for purposes of evaluating the City Council Directed land use scenario includes several modifications compared to the previously recommended General Plan Preferred Scenario Circulation Element roadway system. The modeled roadway system is shown on Exhibit F. The modeled roadway system is based on the roadway system that was recommended in the previous traffic study, with some additional modifications. The additional modifications occurred in four different areas and include:

- SR-74 / I-15 Freeway interchange area – The roadways in this area have been modeled consistent with the most current configuration / improvements being evaluated by the Project Development Team, including the City of Lake Elsinore and the California Department of Transportation. The proposed configuration will include a loop on-ramp from SR-74 eastbound to the I-15 Freeway northbound and will limit Dexter Avenue to right turn in/out only movements. Also, the Riverside Drive overcrossing will be aligned to connect directly with Cambern Avenue to facilitate use as a parallel / alternative route to SR-74 for traffic wishing to cross the I-15 Freeway.
- Pacific Clay / Alberhill Ridge area – The roadway system in this area has been modified to reflect the proposed roadway system being contemplated by the team developing an overall land and circulation plan for this area. The primary change is that the alignment of Temescal Canyon Road would be modified to curve south and connect with the extension of Lincoln Street.

- Franklin Street / I-15 Freeway overcrossing area - A new I-15 Freeway interchange is being contemplated at this location and is included in the modeled roadway network.
- Railroad Canyon Road / I-15 Freeway interchange area – The roadways in this area have been modeled consistent with the most current configuration being evaluated by the Project Development Team, including the City of Lake Elsinore and the California Department of Transportation. The proposed configuration will include relocating the northbound ramps to Grape Street and relocating the southbound ramps to Auto Center Drive. Both sets of ramps would be located south of Railroad Canyon Road.

CITY COUNCIL DIRECTED LAND USE DATA

The City Council Directed General Plan land use data was provided by the City of Lake Elsinore. Exhibit G illustrates the land use data overlay on the WRSATM TAZ structure for the City Council Directed General Plan conditions. Table 1 summarizes the generalized land use data for the City Council Directed scenario. Table 1 also compares the City Council Directed land use data to the previously published Preferred Alternative scenario.

As shown on Table 1, over 4,000 acres of Low and Low-Medium density residential uses have been transferred to the Hillside Residential land use category. At the same time, new categories of non-residential use, including Gateway Commercial and Downtown Recreational use have been added to the proposed land use. The quantity of Commercial Mixed Use land use have also increased by 292 hundred acres. The removal of the Meadowbrook area is balanced by the inclusion of explicit land use (Hillside Residential uses) along the western boundary of the City (this area was unclassified in the previous analysis).

The data in Table 1 reflects the land use data provided by City staff in electronic format. Subsequent refinements to the data have also been completed per the direction of City staff. These refinements include:

- Accounting for explicit modifications related to the Pacific Clay / Alberhill Ridge area (generally located at the northerly end of the City and west of the I-15 Freeway), which have been incorporated into the subsequent socioeconomic data developed for modeling purposes. Per

direction of City staff, Urban Crossroads, Inc. has been providing independent modeling support services to the Pacific-Clay / Alberhill Ridge team. Attachment A shows the project land use and circulation system, provided by the Pacific-Clay / Alberhill Ridge project team, for traffic modeling purposes.

- The representation of the Commercial Mixed Use area of the Diamond Specific Plan (located Diamond Drive at Mission Trail) has been refined to match the project description that has been included in recently completed traffic for the project. The refined socioeconomic data is also included in Attachment A to this letter report.
- Tentative Parcel Map 36193 uses have been revised to reflect High Density Residential uses, consistent with the proposed project uses.
- The commercial mixed use area northeast of the intersection of Grand Avenue (NS) at Macy Street (EW) has been revised to the Residential Mixed Use designation.
- The southwest corner of the intersection of Lincoln Street (NS) at Riverside Drive (EW) has also been revised to the Residential Mixed Use designation.
- The area east of Langstaff Street between Pottery Street and Flint Street has been designated as High Density Residential use.
- The Skylark Airport area designation has been revised from General Commercial to Limited Industrial land use.

SOCIOECONOMIC DATA (SED) CONVERSION

The land use data provided by the City of Lake Elsinore staff has been combined with the Traffic Analysis Zone (TAZ) system in the City of Lake Elsinore to develop land use by TAZ. These land use quantities are then converted into socio-economic data (SED) for use in the modeling, with SED conversion factors. Table 2 shows the non-residential SED conversion factors and the background data used in the development process. All of the SED conversion factors (for both residential and non-residential uses) are shown on Table 3. These factors are identical to the factors used in the January, 2007 traffic study, except for the addition of three categories:

- Lakeside Residential has been included with the same factors as used for Low Density Residential.

- The Gateway Commercial category allows for multi-story office buildings near the I-15 freeway. A Floor Area Ratio (FAR) of 0.75 has been assumed. The number of employees per square foot and the retail employment percent are the same as for the Industrial / Business Park land use.
- A Downtown Recreational category has been added for use near the intersection of Spring Street at Lakeshore Drive. The total employment per acre is double the employment per acre for the general Recreational category, with the same percentage of retail employment as for General Commercial category. A preliminary trip generation calculation has been performed for this use and indicates that: the 34.68 acre Downtown Recreational site generates approximately 3,622 daily trips.

Table 4 summarizes the City Council Directed SED and compares it to the SED that was developed for the previously published Preferred Alternative. SED by TAZ is included as Attachment B to this report. The data contained in Table 4 includes SED developed specifically for the Pacific Clay / Alberhill Ridge area and the Diamond Specific Plan to ensure consistency with recently published studies and /or accurate assessment of potential traffic generated by these areas. Table 4 shows the total SED for the entire study area (as included in the January, 2007 traffic study), and provides a comparison to the previously published Preferred General Plan alternative. The northeast border of the study area in the Preferred plan extended to Ethanac Road, but now is terminated just north of Riverside Street. To provide a comparison of the same land area, RCIP SED has been included for the City Council Directed scenario in that area. Total SED for the City Council Directed scenario with these uses includes 62,205 Single-Family Dwelling Units, 19,660 Multi-Family Dwelling Units, 250,081 Population, 36,130 Retail Employees, and 91,492 Total Employees. There is a decrease in dwelling units of 4.73%, and an increase in employment of 14.43%. The increase in retail employment, which is a high traffic generating variable, is 21.05%.

TRIP GENERATION

The SED for the City Council Directed has been input to the traffic model trip generation procedures and the resulting trip generation is summarized on Table 5. As shown on Table 6, the City Council Directed scenario will generate a total of 1,944,568 trip-ends. This represents an increase of 129,944 trip-ends compared to the previously published General Plan Preferred Alternative. Most of the increase occurs in the Home-Shop attractions (+40,917 trip ends), Other-Other productions (+35,662) and Home-Other

attractions (+ 28,484). These increases are all related to the increase in employment previously described. Attachment C to this report is a summary of trip generation by traffic analysis zone for the City of Lake Elsinore.

DAILY TRAFFIC VOLUME FORECASTS

The traffic modeling process and volume refinement procedures have been performed for the City Council Directed scenario. Exhibit H presents the City Council Directed scenario daily traffic volume forecasts. The highest projected daily traffic volumes are anticipated in the vicinity of the various I-15 Freeway interchanges, including Lake Street, Nichols Road, Central Avenue, Railroad Canyon Road, and Bundy Canyon Road. The greatest change compared to the previously published Preferred alternative is in the vicinity of the Nichols Road interchange. The increased daily volumes in the vicinity of the Nichols Road interchange are a result of the combination of the changes in land use for the Pacific Clay / Alberhill Ridge area and the commercial uses located just east of the interchange.

FUTURE PEAK HOUR CONDITIONS

The future peak hour AM and PM peak hour traffic volumes at the key intersection analysis locations are presented on Exhibit I and Exhibit J, respectively. These volumes have been analyzed to determine the improvements needed to provide acceptable peak hour traffic operations at the key intersections. Table 6 summarizes the results of this analysis and also presents the previously published existing conditions and General Plan Preferred alternative results for comparative purposes. Attachment D to this report contains the detailed peak hour intersection traffic operations analysis worksheets.

Approximately 1/3rd of the study area intersections require the same improvements as the previously published preferred General Plan alternative. The following locations include additional improvements or modified configurations which are as follows:

- Lake Street (NS) at I-15 Southbound Ramps (EW) [Location 2]
 - An eastbound free-right turn lane is recommended at the I-15 Southbound Off-Ramp due to higher land use intensity for the area southwest of the I-15 Freeway adjacent to Lake Street.

- Lake Street (NS) at Road “A” – Alberhill Ridge Road (EW) [Location 3]
 - Additional (third) northbound and southbound through lanes along Lake Street are recommended, which is consistent with the General Plan classification of an Urban Arterial.
 - A southbound free-right turn lane is needed to accommodate high AM and PM peak hour right turn volumes that exceed 1,000 vehicles.
 - These additional improvements are needed due to higher traffic volumes generated by the more intense land uses included in the City Council Directed Scenario for the areas southwest of the I-15 Freeway adjacent to Lake Street.
 - The new west leg (Alberhill Ridge Road) is based on the roadway network concept being developed for the Pacific Clay / Alberhill Ridge project.
- Lake Street (NS) at Lakeshore Drive (EW) [Location 4]
 - A westbound free-right turn lane is needed to accommodate high peak hour right turn volumes in excess of 1,300 vehicles.
 - The additional westbound right turn volume reflects an increase in traffic related to intensified land uses in the Pacific Clay / Alberhill Ridge project area.
- I-15 Northbound Ramps (NS) at Nichols Road (EW) [Location 7]
 - A northbound free-right turn lane is needed to accommodate high peak hour right turn volumes at approximately 1,000 vehicles.
 - Additional (third) eastbound and westbound through lanes along Nichols Road are recommended, which is consistent to the General Plan classification of an Urban Arterial.
 - The additional improvements appear related to the large commercially designated land uses located east of the I-15 Freeway, as well as the intensified land uses in the Pacific Clay / Alberhill Ridge project area.
- I-15 Northbound Ramps (NS) at Central Avenue/SR-74 (EW) [Location 8]
 - This location has been reconfigured per the most current interchange configuration being evaluated by the Project Development Team for the I-15/SR-74 Interchange.
 - An additional (fourth) lane is needed at the I-15 Northbound Off-Ramp (northbound approach) to accommodate high peak hour left and right turn volumes that each exceeds 1,000 vehicles.

- An additional (third) westbound through lane along Central Avenue/SR-74 are recommended, which is consistent with the General Plan classification of an Urban Arterial.
- The eastbound approach has been reconfigured to include a loop on-ramp to the Northbound I-15 Freeway. Dexter Avenue is no longer part of the interchange intersection, consistent with the most current interchange configuration being evaluated by the Project Development Team for the I-15/SR-74 Interchange.
- I-15 Northbound Ramps (NS) at Bundy Canyon Road (EW) [Location 9]
 - Additional (third) eastbound and westbound through lanes along Bundy Canyon Road are recommended, which is consistent with the Riverside County General Plan classification of an Urban Arterial.
 - The recommended westbound right turn lane can be a standard (exclusive) right turn lane, rather than the previously recommended free right turn lane.
 - The recommended northbound approach configuration is an exclusive left turn lane, a shared left-right turn lane, and an exclusive right turn lane. The previously recommended free right turn lane configuration is no longer necessary with this configuration.
 - The recommended geometry is consistent with recently completed studies in the area, such as the Diamond Specific Plan.
- I-15 Southbound Ramps (NS) at Nichols Road (EW) [Location 10]
 - A third southbound left right turn lane is needed to accommodate high peak hour left turn volumes at approximately 1,200 vehicles.
 - Additional (third) eastbound and westbound through lanes along Nichols Road are recommended, which is consistent with the General Plan classification of an Urban Arterial.
 - The PM peak hour delay (45.7 seconds) slightly exceeds the desired Caltrans threshold of 45 seconds of delay.
 - The additional improvements appear related to the large commercially designated land uses located east of the I-15 Freeway, as well as the intensified land uses in the Pacific Clay / Alberhill Ridge project area.
- I-15 Southbound Ramps (NS) at Central Avenue/SR-74 (EW) [Location 11]
 - This location has been reconfigured per the most current interchange configuration being evaluated by the Project Development Team for the I-15/SR-74 Interchange.

- Additional (second) southbound left and right lanes are needed at the I-15 Southbound Off-Ramp to accommodate high peak hour left and right turn volumes that are each approximately 800 vehicles.
- Additional (third) eastbound and westbound through lanes along Central Avenue/SR-74 are recommended, which is consistent with the General Plan classification of an Urban Arterial.
- An additional (2nd) eastbound right turn lane is also recommended to serve anticipated volumes of nearly 900 vehicles per hour during the AM peak hour and over 1,000 vehicles per hour in the PM peak hour.
- Riverside Drive (NS) at Grand Avenue/SR-74 (EW) [Location 13]
 - A southbound free-right turn lane and additional eastbound left turn lanes (total of 2 eastbound left turn lanes) are needed to accommodate high peak hour turning volumes that exceed 1,000 vehicles.
 - The higher turning movements / increased utilization of Grand Avenue appear to be related to the changes in roadway network configuration and / or land uses in the Pacific Clay / Alberhill Ridge project area.
- Grand Avenue (NS) at Ortega Highway/SR-74 (EW) [Location 14]
 - Additional (third) northbound and southbound through lanes along Grand Avenue are recommended, which is consistent with the General Plan classification of an Urban Arterial.
- Collier Avenue (NS) at Riverside Drive (EW) [Location 15]
 - An additional (second) northbound through lane is needed along Collier Avenue to accommodate overall higher traffic caused by the intensified land use in the area. The recommended second northbound through lane is consistent with the General Plan roadway classifications for Collier Avenue.
- Collier Avenue (NS) at Central Avenue (EW) [Location 16]
 - Although number of travel lanes is the same as previously recommended (and even reduced for the northbound approach), the lane configuration has been modified to accommodate / reflect variations in the traffic patterns at this intersection. The recommended geometry is relatively consistent with the recently completed I-15/SR-74 Interchange Project Study Report (the number of lanes is identical, with slightly different allocation of lanes on the southbound approach).

- Riverside Street (NS) at Central Avenue/SR-74 (EW) [Location 17]
 - The intersection lane configuration has been modified to be consistent with the General Plan classification for Riverside Street and Central Avenue/SR-74. The previously recommended third northbound through lane on Riverside Street has been eliminated, while a new (1st) eastbound right turn lane is recommended on SR-74 to serve the relatively heavy right turn movements (483 vehicles per hour in the PM peak hour).
- Greenwald Avenue (NS) at Central Avenue/SR-74 (EW) [Location 18]
 - The overall recommended intersection improvements have been reduced for consistency with the General Plan classification for Greenwald Avenue and Central Avenue/SR-74.
- Rosetta Canyon Road (NS) at Central Avenue/SR-74 (EW) [Location 19]
 - A second northbound right turn lane and an eastbound right-turn overlap phasing are needed to improve intersection operations due to slightly higher through traffic along Central Avenue/SR-74. A third westbound through lane, consistent with the General Plan classification, is also required.
- Main Street (NS) at Camino Del Norte (EW) [Location 24]
 - A second westbound left turn lane is needed at this location as a result of increased traffic traveling to and from the areas east of this intersection along Camino Del Norte. Although the number of northbound approach lanes is the same as previously recommended, the northbound lane configuration has been modified from 2 left turn lanes and a single right turn lane to a single left turn lane and 2 right turn lanes to accommodate the increased traffic traveling to and from the areas east of this intersection along Camino Del Norte
- Main Street (NS) at I-15 Southbound Ramps (EW) [Location 26]
 - A second southbound through lane is needed to accommodate the slightly higher traffic volumes at this location. The improvement is consistent with the General Plan classification for Main Street.
- Old Franklin Street (NS) at Auto Center Drive (EW) [Location 28]
 - This intersection has been reconfigured for consistency with the current concept plans for this area (new Franklin Street interchange). Additional (second) eastbound and westbound through lanes along Auto Center Drive are recommended, which is consistent with the General Plan classification and required to accommodate increased

- traffic volumes. The higher traffic volumes are due to the redistribution of traffic related to the new I-15 interchange at Franklin Street.
- Summerhill Drive-Grape Street (NS) at Railroad Canyon Road (EW) [Location 29]
 - The eastbound travel lanes have been reallocated and an additional westbound travel lane (2nd right turn lane) on Railroad Canyon Road is needed to accommodate higher turning movements due to the redistribution of traffic caused by the new interchange configuration for the I-15/Railroad Canyon Road Interchange. The peak hour level of service / average delays will meet City of Lake Elsinore requirements, however the desired Caltrans threshold of 45 seconds of delay will be exceeded during both the AM and the PM peak hours of traffic at this intersection.
 - Grape Street (NS) at I-15 Northbound Ramps (EW) [Location 30]
 - New interchange configuration for the I-15/Railroad Canyon Road Interchange.
 - Railroad Canyon Road (NS) at Canyon Hills Road (EW) [Location 31]
 - A fourth northbound through lane, a second southbound left turn lane, and a westbound right-turn overlap phasing are needed to accommodate higher turning movements due to the higher traffic caused by the intensified land use in the area.
 - Casino Drive (NS) at I-15 Southbound Ramps (EW) [Location 32]
 - New interchange configuration for the I-15/Railroad Canyon Road Interchange.
 - Diamond Drive (NS) at Lakeshore Drive-Mission Trail (EW) [33]
 - A third southbound through lane and a second right turn lane are needed accommodate higher traffic at this intersection. The higher turning movements are caused by the increased utilization of Lakeshore Avenue and Diamond Drive as a thoroughfare for the area. This configuration is consistent with other recent studies (Diamond Drive Specific Plan traffic study).
 - Mission Trail (NS) at Malaga Road (EW) [Location 34]
 - An additional northbound right turn lane is recommended while the westbound approach has been modified to be consistent with the General Plan classification.
 - The recommended geometry contains less lane improvements than the recently completed Diamond Specific Plan traffic study.
 - Mission Trail (NS) at Corydon Road (EW) [Location 35]

- An additional (second) eastbound left turn lane is recommended to accommodate high left turn traffic at this intersection. This improvement is consistent with the General Plan classification for Corydon Road.
- The recommended geometry contains less lane improvements than the recently completed Diamond Specific Plan traffic study.
- Mission Trail (NS) at Bundy Canyon Road (EW) [Location 36]
 - The westbound approach has been modified to be consistent with the General Plan classification and includes a second westbound through lane.
 - The recommended geometry contains less lane improvements than the recently completed Diamond Specific Plan traffic study.
- Grand Avenue (NS) at Corydon Road (EW) [Location 37]
 - Additional northbound and southbound travel lanes, consistent with the General Plan classification are recommended to accommodate higher overall traffic at this intersection.
- Auto Center Drive-Casino Drive (NS) at Railroad Canyon Road (EW) [Location 38]
 - This location was not previously analyzed. The recommended improvements Additional northbound and southbound travel lanes, consistent with the General Plan classification are recommended to accommodate higher overall traffic at this intersection.

RECOMMENDED CITY COUNCIL DIRECTED SCENARIO ROADWAY SYSTEM

The recommended City Council Directed Scenario roadway system has been developed based on review of the future daily traffic volumes (previously presented on Exhibit H), the peak hour operations analysis, and the needed intersection improvements. The recommended City Council Directed Scenario General Plan Circulation Element roadway classifications are depicted on Exhibit K. The recommended roadway cross-sections are unchanged from those previously shown on Exhibit D. In addition to the refinements discussed previously and included in the modeled roadway network (Exhibit F), the following changes are also recommended:

- Lake Street from Road "A" to the I-15 Freeway Northbound Ramps: Upgrade to an Augmented Urban Arterial designation.
- Road "A" from Temescal Canyon Road to Lake Street: Upgrade to an Urban Arterial.

- Lincoln Street from Grand Avenue – Lake Street to Machado Street: Downgrade from a Major to a Secondary.
- Grand Avenue from Machado Street to Riverside Drive: Upgrade from a Collector to a Secondary.
- Nichols Road from Alberhill Ridge Road to Collier Street: Upgrade from a Primary to an Urban Arterial.
- Nichols Road from Collier Street to east of the I-15 Freeway (exact limit will be determined in conjunction with future development of commercial areas along Nichols Road in this vicinity): Upgrade from an Urban Arterial to an Augmented Urban Arterial.
- Rosarita Drive – Conard Avenue from Nichols Road to Central Avenue (SR-74): Upgrade from a Collector to a Secondary.
- Downtown Area: The Downtown Master Plan contains explicit recommendations for roadway designations throughout the Downtown Area. Rather than recap all of the information in the Downtown Master Plan, the recommended roadway classification exhibit directs the reader to the Downtown Master Plan itself.

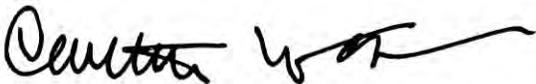
Exhibit L summarizes the recommended key intersection configurations and improvements. Any changes in the recommended improvements were discussed in previous sections of the report.

CLOSING

Urban Crossroads, Inc. is pleased to provide this report for your use. Please feel free to call me at (949) 660-1994 x210 if you have any questions or wish to the information contained in this report.

Respectfully submitted,

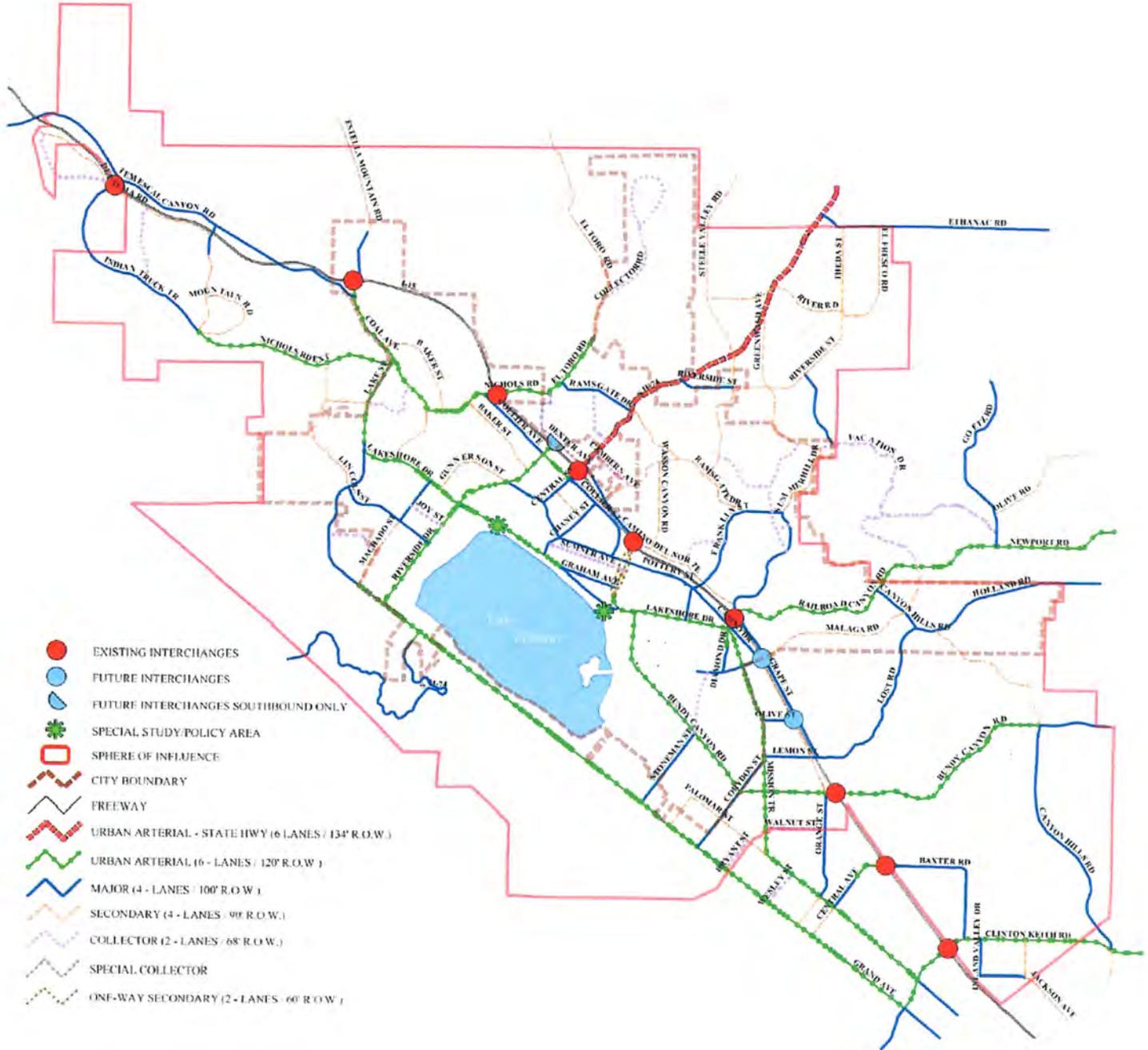
URBAN CROSSROADS, INC.



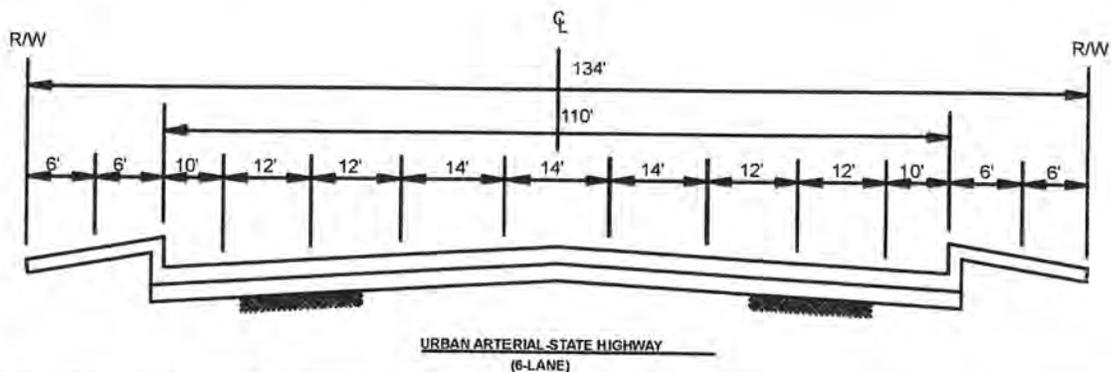
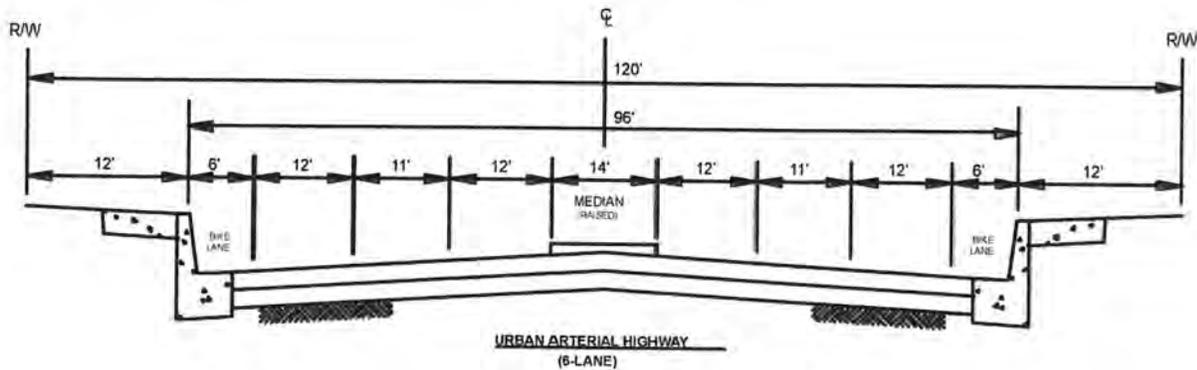
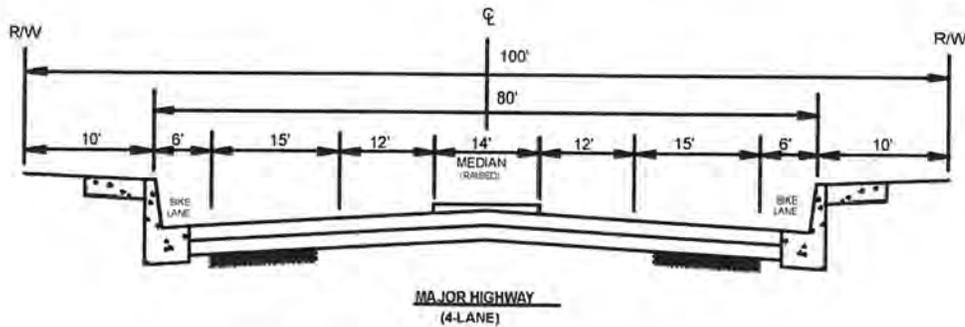
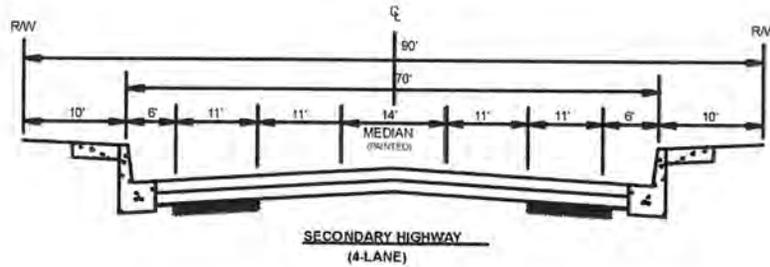
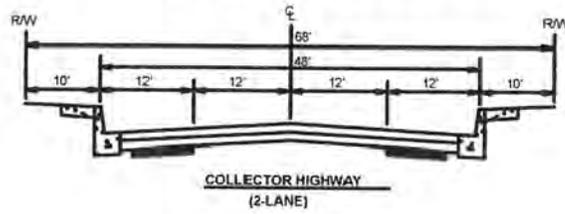
Carleton Waters, P. E.
Principal

CW:lr
JN:05059-09_Report
Attachment

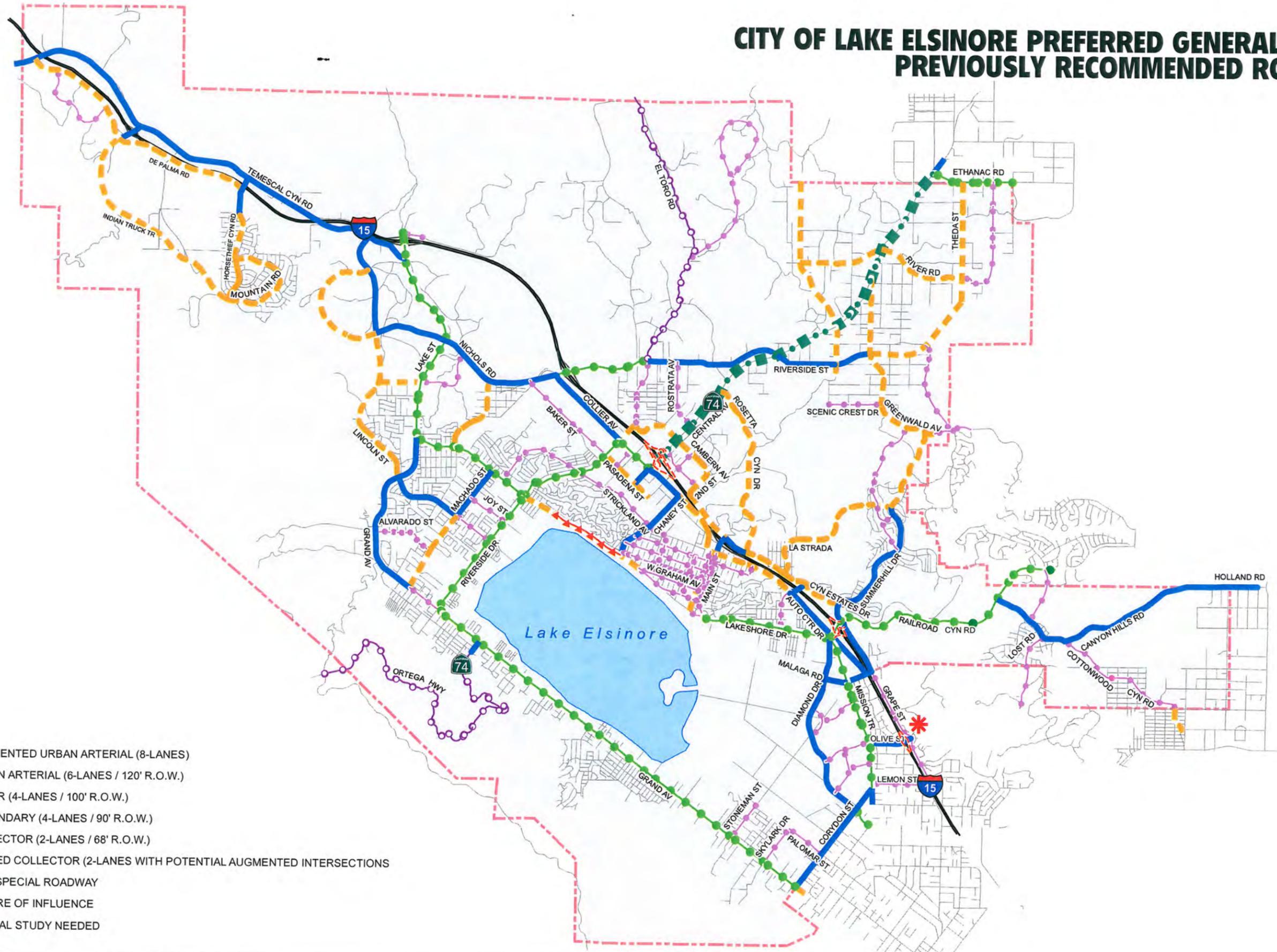
CITY OF LAKE ELSINORE CURRENTLY ADOPTED GENERAL PLAN CIRCULATION ELEMENT ROADWAY SYSTEM



CITY OF LAKE ELSINORE CURRENTLY ADOPTED GENERAL PLAN ROADWAY CROSS-SECTIONS

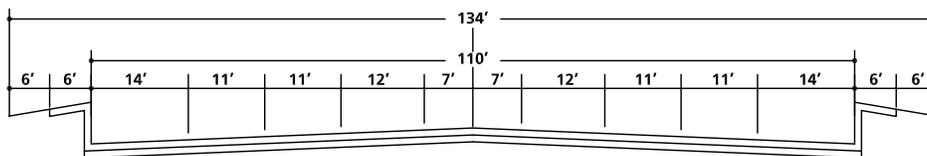


CITY OF LAKE ELSINORE PREFERRED GENERAL PLAN SCENARIO PREVIOUSLY RECOMMENDED ROADWAY SYSTEM

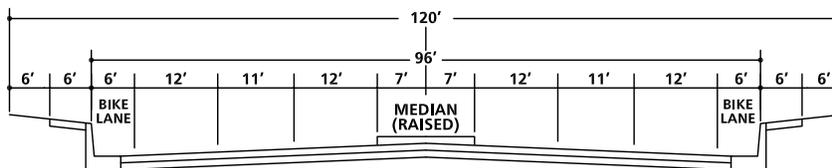


- Legend**
- ■ ■ ■ AUGMENTED URBAN ARTERIAL (8-LANES)
 - ● ● ● URBAN ARTERIAL (6-LANES / 120' R.O.W.)
 - MAJOR (4-LANES / 100' R.O.W.)
 - - - SECONDARY (4-LANES / 90' R.O.W.)
 - ● ● ● COLLECTOR (2-LANES / 68' R.O.W.)
 - ○ ○ ○ DIVIDED COLLECTOR (2-LANES WITH POTENTIAL AUGMENTED INTERSECTIONS)
 - ▲ ▲ ▲ ▲ NEW SPECIAL ROADWAY
 - - - SPHERE OF INFLUENCE
 - * SPECIAL STUDY NEEDED

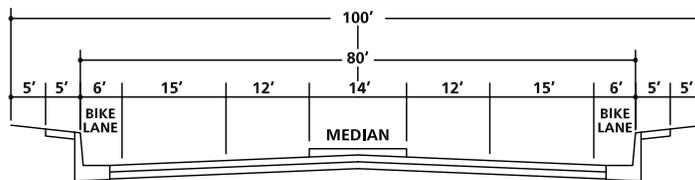
CITY OF LAKE ELSINORE PREFERRED GENERAL PLAN SCENARIO PREVIOUSLY RECOMMENDED ROADWAY CROSS-SECTIONS



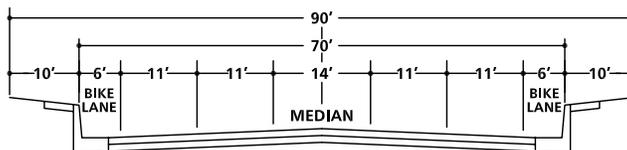
AUGMENTED URBAN ARTERIAL - STATE HIGHWAY
(8-LANE)



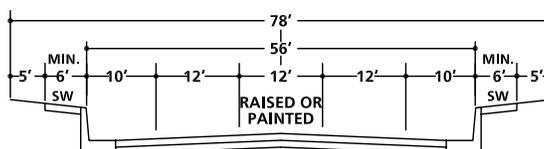
URBAN ARTERIAL HIGHWAY
(6-LANE)



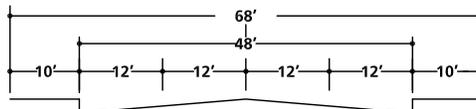
MAJOR HIGHWAY
(4-LANE)



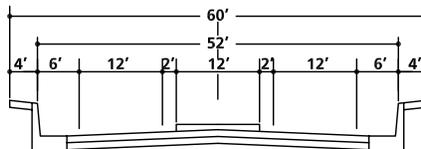
SECONDARY HIGHWAY
(4-LANE)



DIVIDED COLLECTOR
(2-LANE)



COLLECTOR HIGHWAY
(2-LANE)



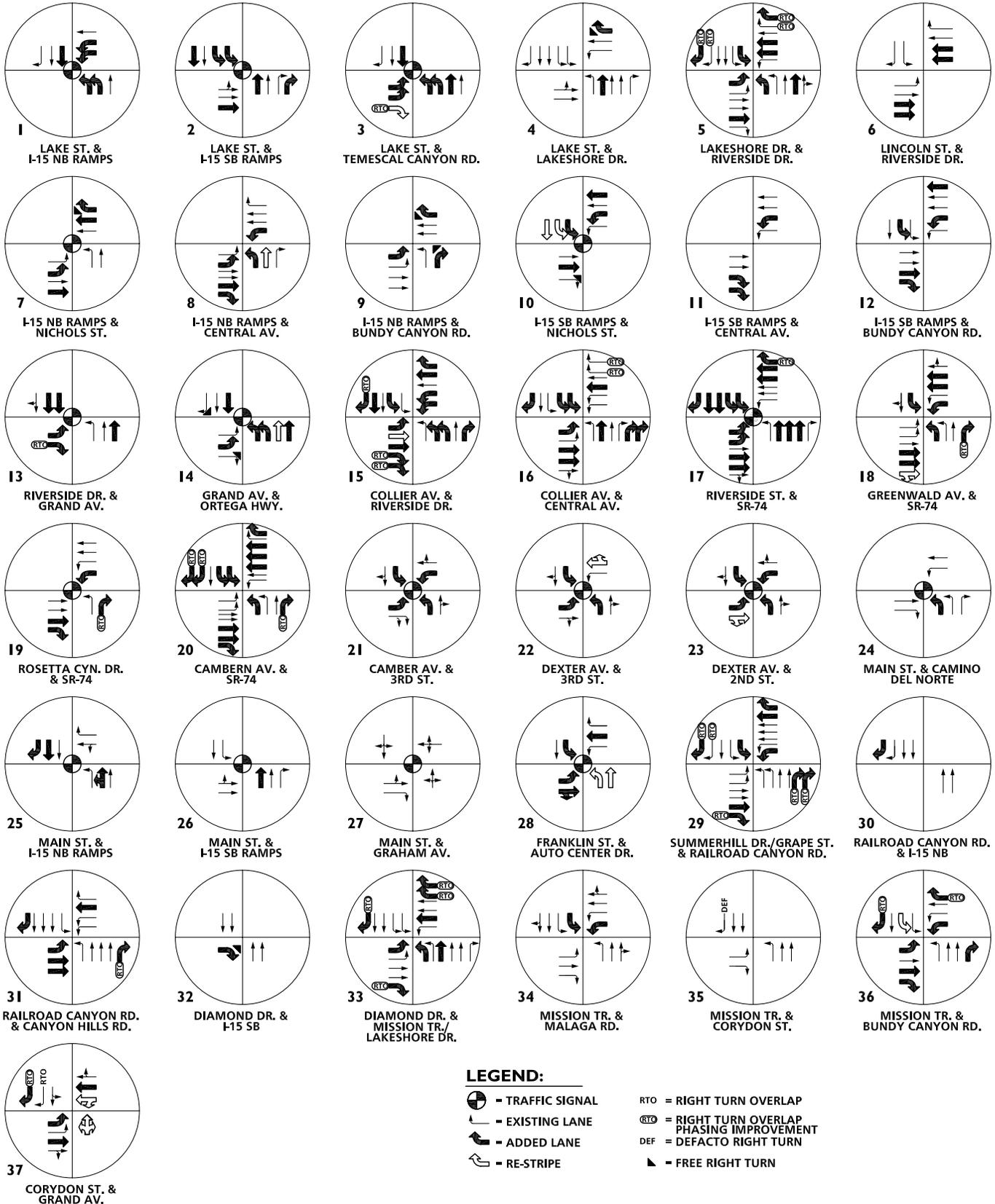
NEW SPECIAL ROADWAY
(2-LANE)

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

* BIKE LANES ARE NOT MANDATORY UNLESS SHOWN ON THE BIKEWAY CIRCULATION ELEMENT PLAN

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.

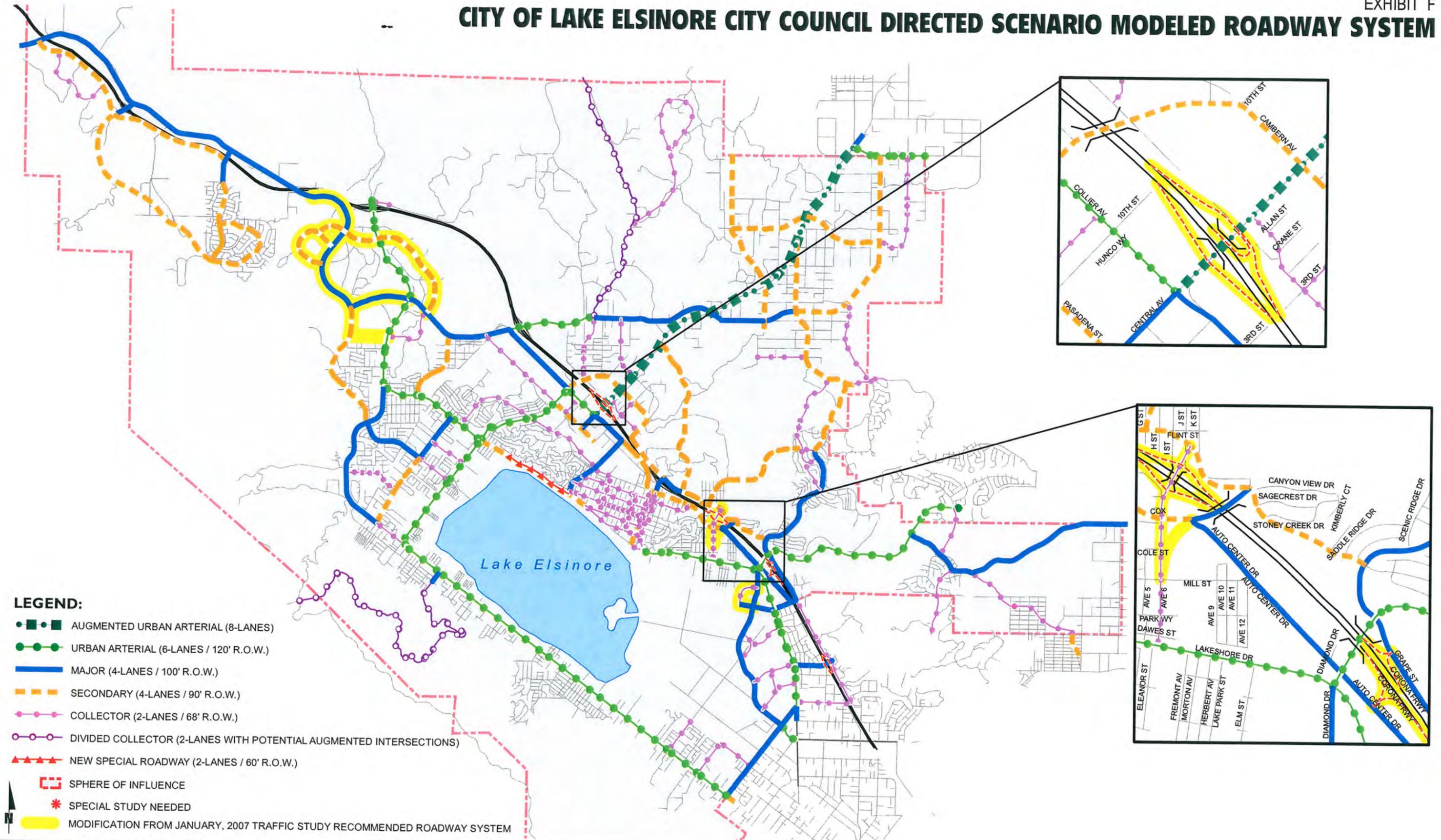
CITY OF LAKE ELSINORE PREFERRED GENERAL PLAN SCENARIO PREVIOUSLY RECOMMENDED KEY INTERSECTION IMPROVEMENTS



LEGEND:

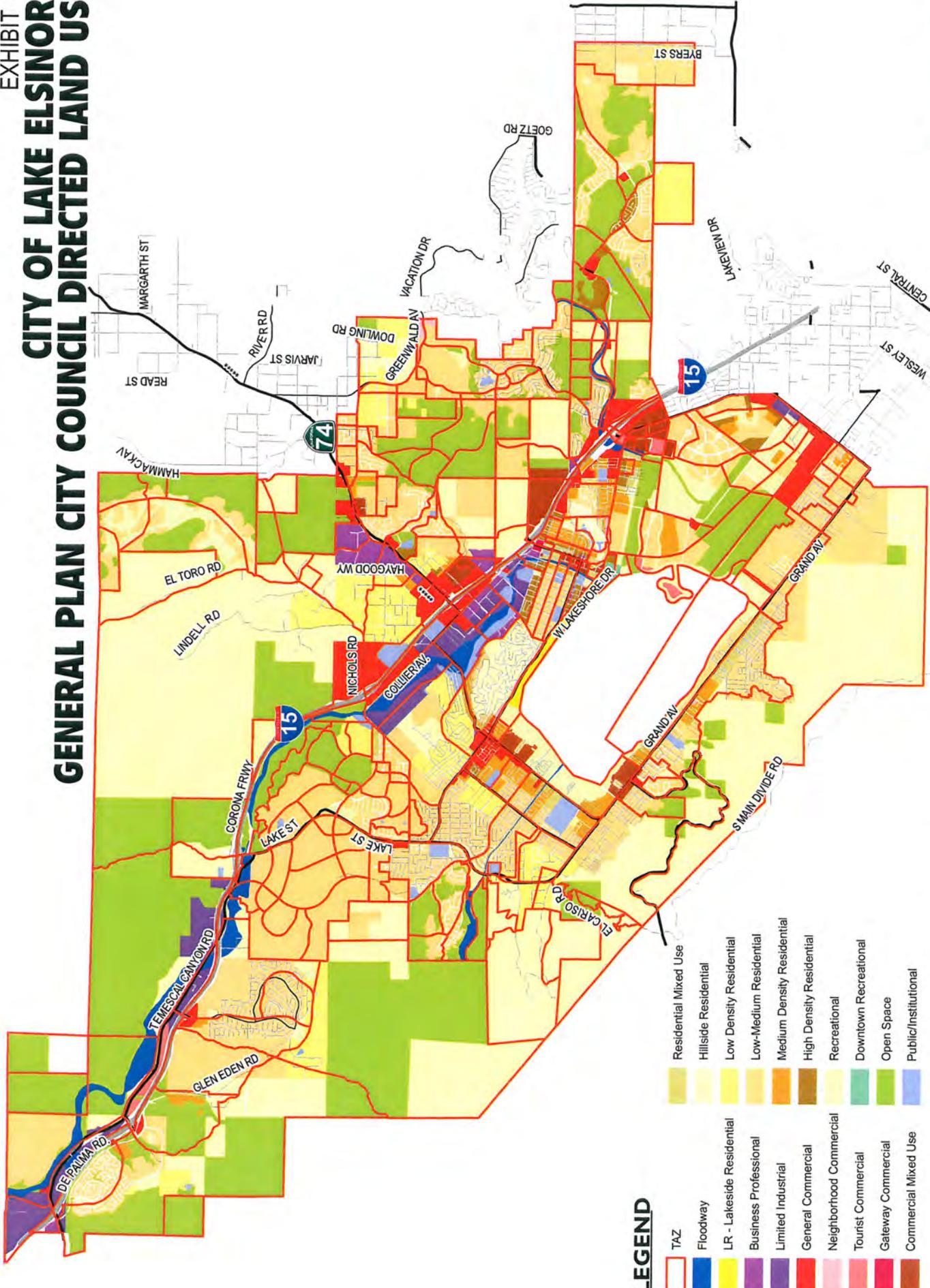
- TRAFFIC SIGNAL
- EXISTING LANE
- ADDED LANE
- RE-STRIPE
- RTO = RIGHT TURN OVERLAP
- = RIGHT TURN OVERLAP PHASING IMPROVEMENT
- DEF = DEFACTO RIGHT TURN
- = FREE RIGHT TURN

CITY OF LAKE ELSINORE CITY COUNCIL DIRECTED SCENARIO MODELED ROADWAY SYSTEM



- LEGEND:**
- 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 (2-LANES / 60' R.O.W.)
 - SHERE OF INFLUENCE
 - * SPECIAL STUDY NEEDED
 - MODIFICATION FROM JANUARY, 2007 TRAFFIC STUDY RECOMMENDED ROADWAY SYSTEM

EXHIBIT G CITY OF LAKE ELSINORE GENERAL PLAN CITY COUNCIL DIRECTED LAND USE



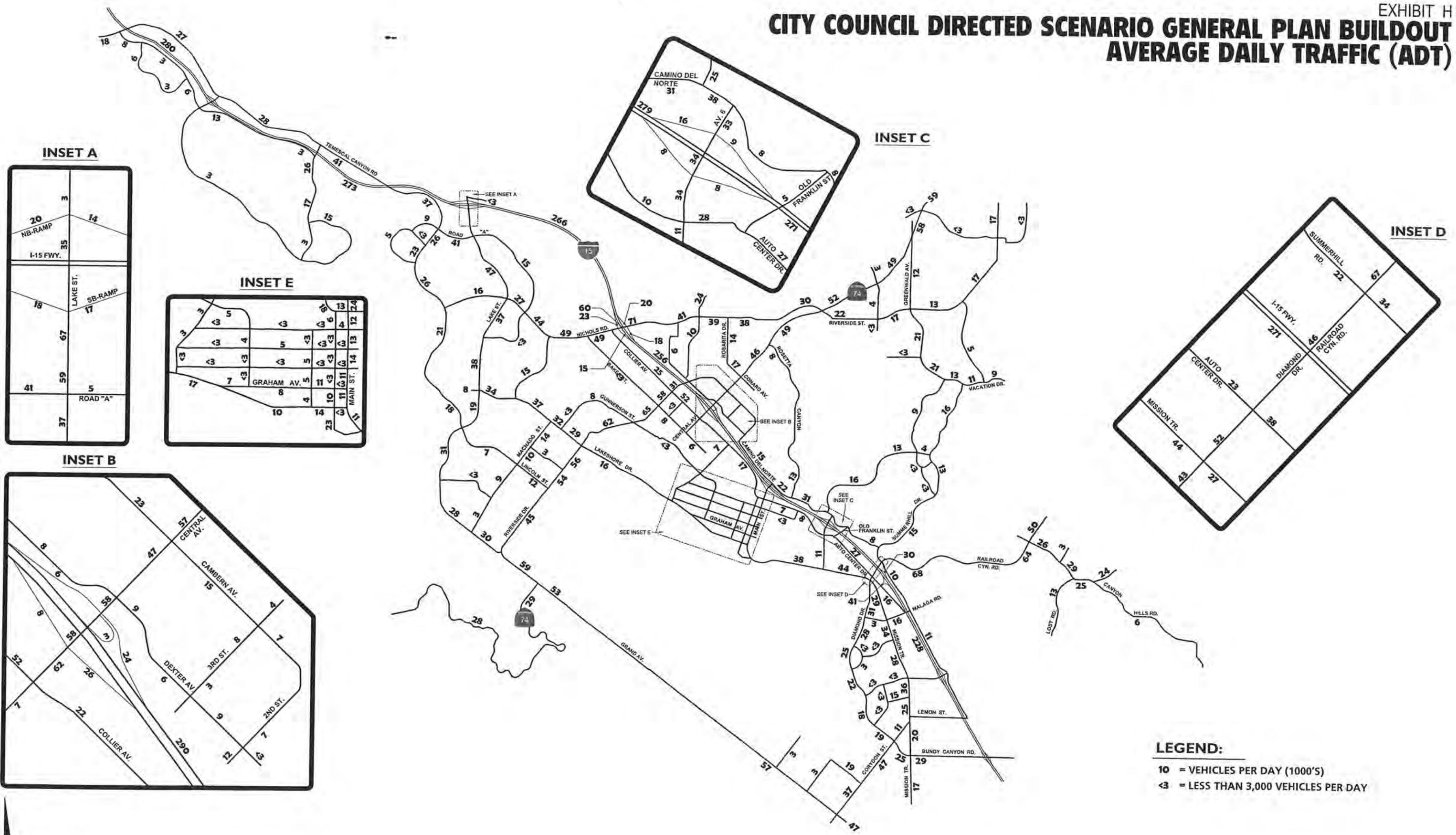
LEGEND

[Red Outline]	TAZ	[Light Green]	Residential Mixed Use
[Blue]	Floodway	[Light Yellow]	Hillside Residential
[Yellow]	LR - Lakeside Residential	[Light Orange]	Low Density Residential
[Purple]	Business Professional	[Orange]	Low-Medium Residential
[Dark Purple]	Limited Industrial	[Dark Orange]	Medium Density Residential
[Red]	General Commercial	[Dark Red]	High Density Residential
[Pink]	Neighborhood Commercial	[Light Green]	Recreational
[Light Pink]	Tourist Commercial	[Light Green]	Downtown Recreational
[Light Green]	Gateway Commercial	[Light Green]	Open Space
[Dark Green]	Commercial Mixed Use	[Light Blue]	Public/Institutional

Lake Elsinore General Plan Update : City Council Directed Scenario
City of Lake Elsinore, CA (JN - 05059:gpccllu.mxd)

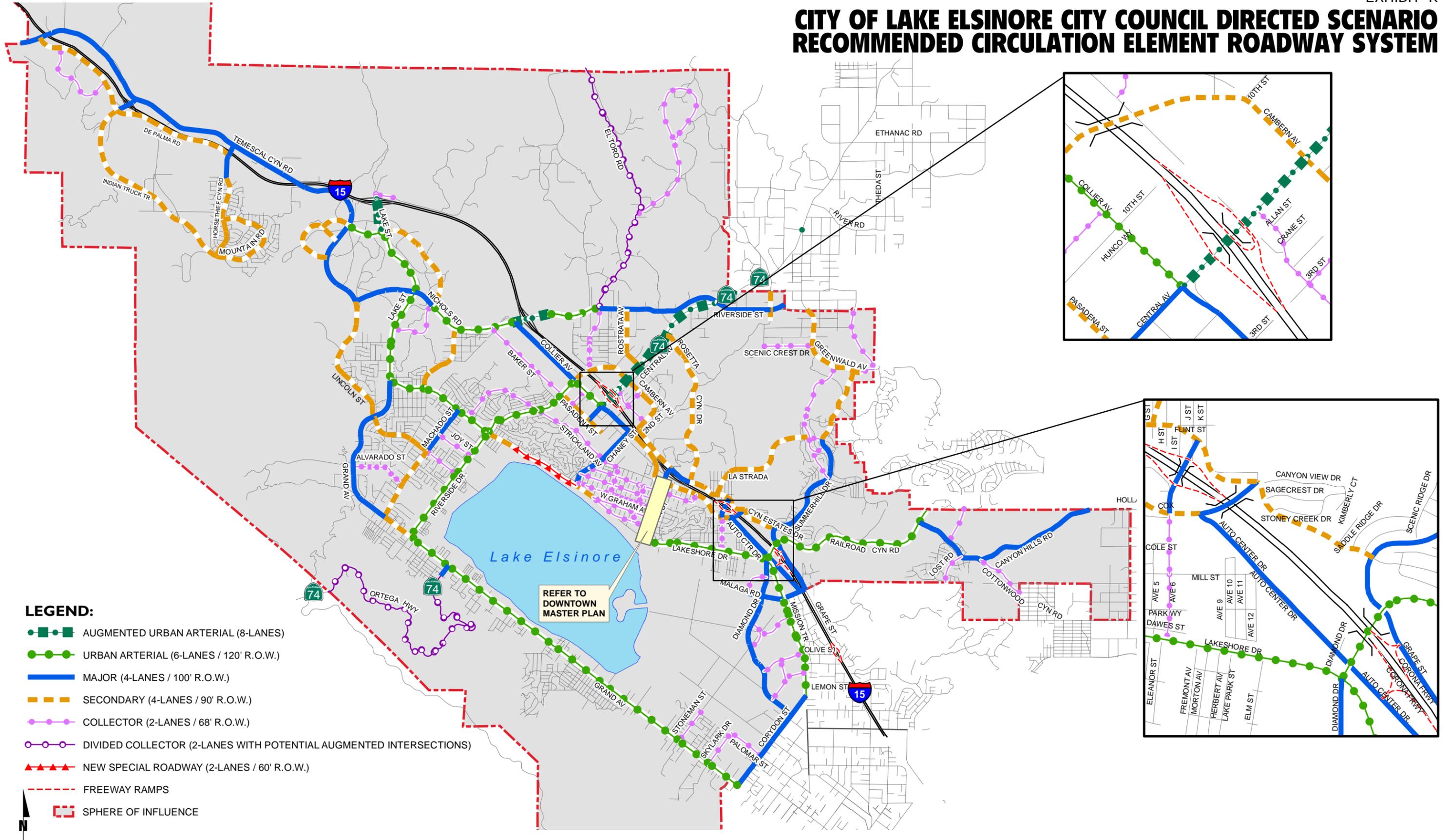


EXHIBIT H
**CITY COUNCIL DIRECTED SCENARIO GENERAL PLAN BUILDOUT
 AVERAGE DAILY TRAFFIC (ADT)**



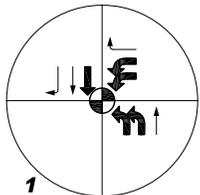
LEGEND:
 10 = VEHICLES PER DAY (1000'S)
 <3 = LESS THAN 3,000 VEHICLES PER DAY

CITY OF LAKE ELSINORE CITY COUNCIL DIRECTED SCENARIO RECOMMENDED CIRCULATION ELEMENT ROADWAY SYSTEM

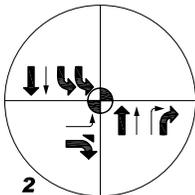


- LEGEND:**
- AUGMENTED URBAN ARTERIAL (8-LANES)
 - URBAN ARTERIAL (6-LANES / 120' R.O.W.)
 - MAJOR (4-LANES / 100' R.O.W.)
 - - - SECONDARY (4-LANES / 90' R.O.W.)
 - COLLECTOR (2-LANES / 68' R.O.W.)
 - DIVIDED COLLECTOR (2-LANES WITH POTENTIAL AUGMENTED INTERSECTIONS)
 - ▲—▲ NEW SPECIAL ROADWAY (2-LANES / 60' R.O.W.)
 - - - FREEWAY RAMP
 - - - SPHERE OF INFLUENCE

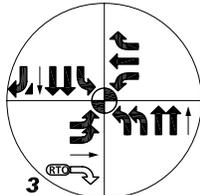
CITY COUNCIL DIRECTED SCENARIO GENERAL PLAN RECOMMENDED INTERSECTION IMPROVEMENTS



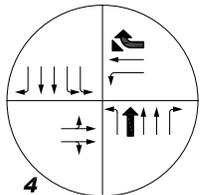
1 LAKE ST. & I-15 NB RAMP



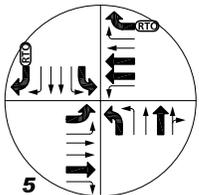
2 LAKE ST. & I-15 SB RAMP



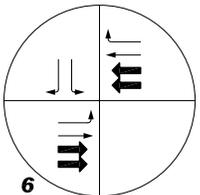
3 LAKE ST. & ROAD "A"



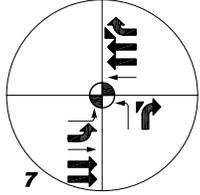
4 LAKE ST. & LAKESHORE DR.



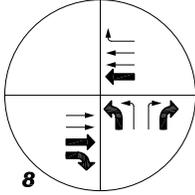
5 LAKESHORE DR. & RIVERSIDE DR.



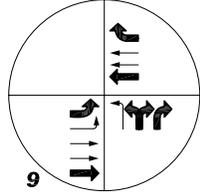
6 LINCOLN ST. & RIVERSIDE DR.



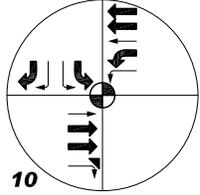
7 I-15 NB RAMP & NICHOLS ST.



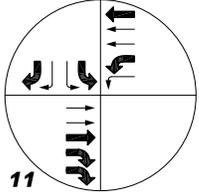
8 I-15 NB RAMP & CENTRAL AV.



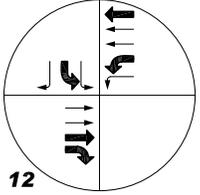
9 I-15 NB RAMP & BUNDY CANYON RD.



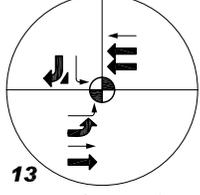
10 I-15 SB RAMP & NICHOLS ST.



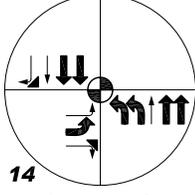
11 I-15 SB RAMP & CENTRAL AV.



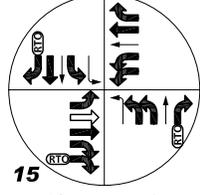
12 I-15 SB RAMP & BUNDY CANYON RD.



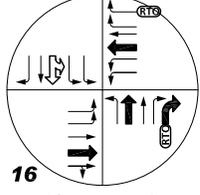
13 RIVERSIDE DR. & GRAND AV.



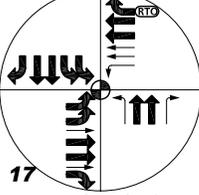
14 GRAND AV. & ORTEGA HWY.



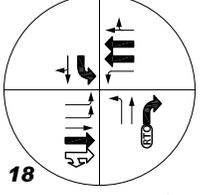
15 COLLIER AV. & RIVERSIDE DR.



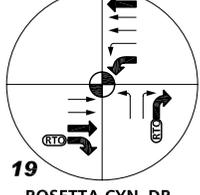
16 COLLIER AV. & CENTRAL AV.



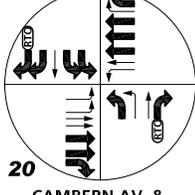
17 RIVERSIDE ST. & SR-74



18 GREENWALD AV. & SR-74



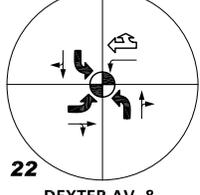
19 ROSETTA CYN. DR. & SR-74



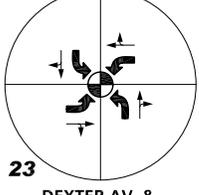
20 CAMBERN AV. & SR-74



21 CAMBERN AV. & 3RD ST.



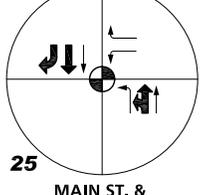
22 DEXTER AV. & 3RD ST.



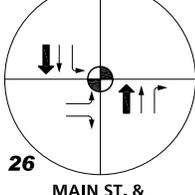
23 DEXTER AV. & 2ND ST.



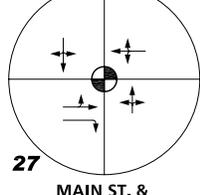
24 MAIN ST. & CAMINO DEL NORTE



25 MAIN ST. & I-15 NB RAMP



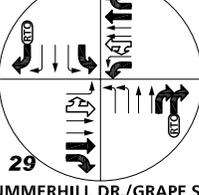
26 MAIN ST. & I-15 SB RAMP



27 MAIN ST. & GRAHAM AV.



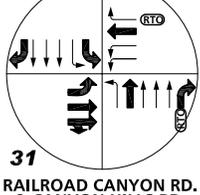
28 FRANKLIN ST. & AUTO CENTER DR.



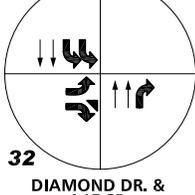
29 SUMMERHILL DR./GRAPE ST. & RAILROAD CANYON RD.



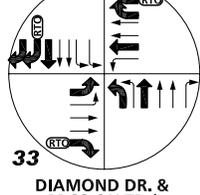
30 RAILROAD CANYON RD. & I-15 NB



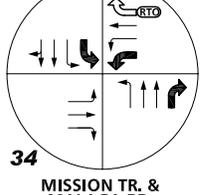
31 RAILROAD CANYON RD. & CANYON HILLS RD.



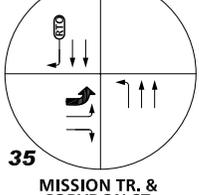
32 DIAMOND DR. & I-15 SB



33 DIAMOND DR. & MISSION TR./LAKESHORE DR.



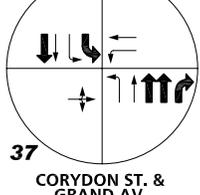
34 MISSION TR. & MALAGA RD.



35 MISSION TR. & CORYDON ST.



36 MISSION TR. & BUNDY CANYON RD.



37 CORYDON ST. & GRAND AV.



38 AUTO CENTER DR / CASINO DR. & RAILROAD CANYON RD.

LEGEND:

- TRAFFIC SIGNAL
- EXISTING LANE
- ADDED LANE
- RE-STRIPE

- RTO - RIGHT TURN OVERLAP
- RIGHT TURN OVERLAP PHASING IMPROVEMENT
- DEF = DEFACTO RIGHT TURN
- FREE RIGHT TURN

TABLE 1

CITY COUNCIL DIRECTED LAND USE ACREAGE SUMMARY

LAKE ELSINORE CITY COUNCIL DIRECTED LAND USE SUMMARY (IN ACRES):

Land Use	City Council Directed Scenario	Previous (Preferred Alternative)	Difference (CCD - Preferred)	% Difference
Hillside Residential	13,930	8,938	4,992	56%
Low Density Residential	2,522	5,604	-3,082	-55%
Low-Medium Residential	11,700	13,305	-1,605	-12%
Medium Density Residential	795	841	-46	-5%
High Density Residential	330	311	19	6%
Neighborhood Commercial	45	38	7	18%
General Commercial	958	895	63	7%
Tourist Commercial	109	201	-92	-46%
Freeway Business	0	293	-293	-100%
Limited Industrial	1,093	974	119	12%
Industrial Business Park	354	273	81	30%
Public /Institutional	485	498	-13	-3%
Commercial Mixed Use	482	190	292	154%
Residential Mixed Use	225	341	-116	-34%
Recreation	1,888	1,836	52	3%
Airport Use Area	0	162	-162	-100%
Gateway Commercial	8	0	8	N/A
Downtown Recreational	35	0	35	N/A
Grand Total	34,959	34,700	259	1%

Note: City Council Directed scenario derived from land use coverage and does not reflect more explicit representation of the Pacific Clay / Alberhill Ridge area or the Diamond Specific Plan area.

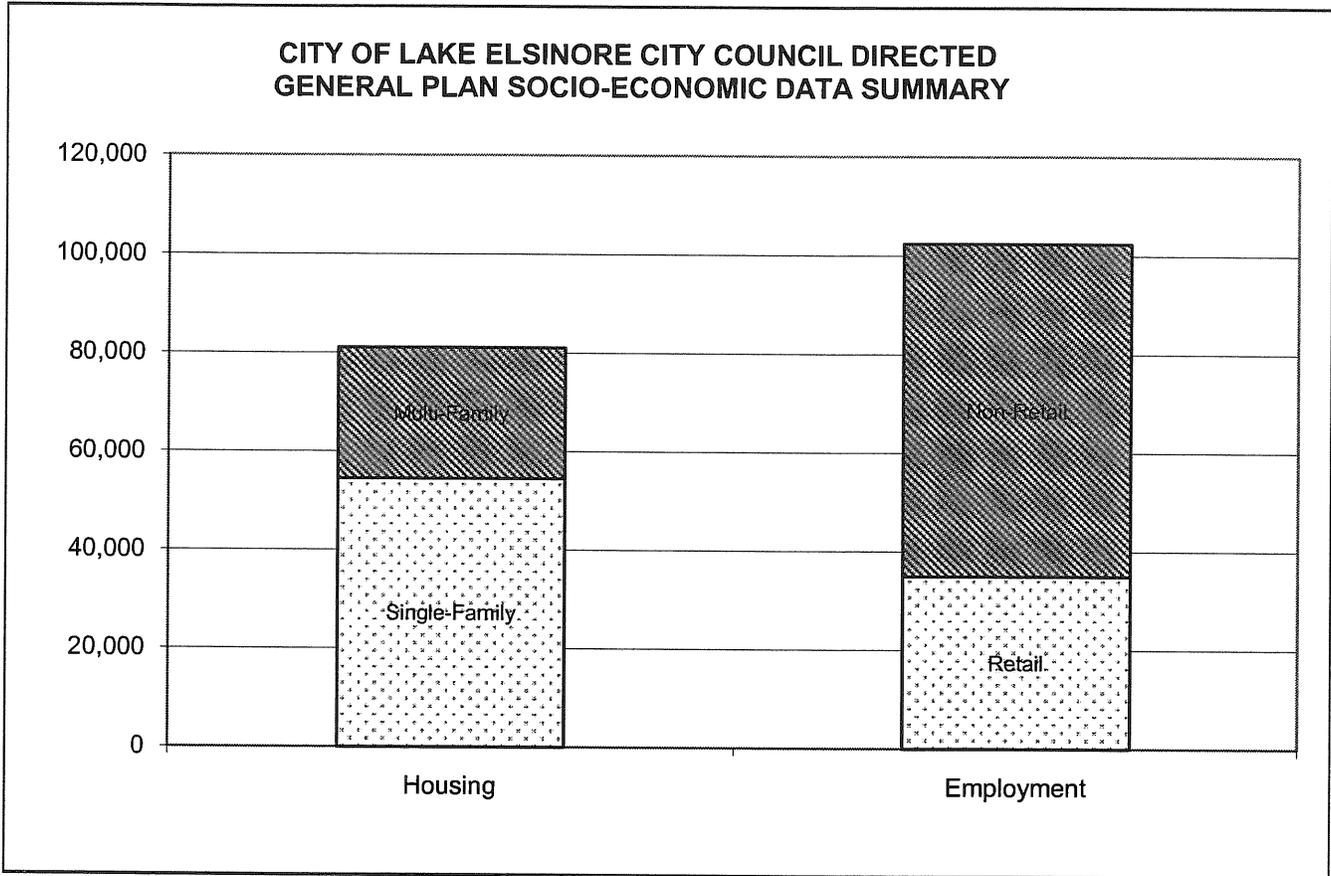
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TABLE 3

LAND USE TO SED CONVERSION FACTORS

GP Land Use	Base Unit	Gross Net to Acre Ratio	Density Range	Mid-Range Density				Employee/gross AC		Employee/net AC		
				SFDU	MFDU	TOTAL DU	POP Per		Total	Retail	Total	Retail
							SFDU	MFDU				
RESIDENTIAL												
Hillside Residential	ACRES	-	0.1 DU / ACRE	0.25	-	0.25	3.17	-	-	-	-	
Lakeside Residential	ACRES	-	1 DU / ACRE	1	-	1	3.17	-	-	-	-	
Low Density	ACRES	-	1 DU / ACRE	1	-	1	3.17	-	-	-	-	
Low Medium	ACRES	-	2 to 6 DU / ACRE	4	-	4	3.17	-	-	-	-	
Medium Density	ACRES	-	6 to 18 DU / ACRE	6	6	12	3.17	2.7	-	-	-	
High Density	ACRES	-	24 DU/1 ACRE with possible bonus to 35 DU/1 ACRE	-	18	18	-	2.7	-	-	-	
COMMERCIAL												
Comm Neighborhood	ACRES	0.8	-	-	-	-	-	-	25	22	31	28
Comm General	ACRES	0.8	-	-	-	-	-	-	26	21	33	26
Gateway Comm	ACRES	0.8	-	-	-	-	-	-	61	3	77	4
Comm Tourist	ACRES	0.8	-	-	-	-	-	-	27	19	34	24
INDUSTRIAL												
Fwy Business	ACRES	0.8	-	-	-	-	-	-	28	0	35	0
Ind Ltd	ACRES	0.8	-	-	-	-	-	-	26	0	33	0
OFFICE												
Ind BP	ACRES	0.8	-	-	-	-	-	-	33	2	41	2
Public Institution	ACRES	0.8	-	-	-	-	-	-	15	2	19	2
MIXED USE												
Commercial MU	ACRES	0.8	60% Commercial	-	-	-	-	-	16	13	20	16
		-	40% Residential	-	10	-	-	2.7	-	-	-	-
		0.8	20% Commercial	-	-	-	-	-	5	4	7	5
Residential MU	ACRES	-	80% Residential	-	19	-	-	2.7	-	-	-	
OTHER												
School	ACRES	-	-	-	-	-	-	-	2.5	0	2.5	0
Recreation	ACRES	-	-	-	-	-	-	-	2.2	0.3	2.2	0.3
Downtown Recreation	ACRES	-	-	-	-	-	-	-	4.4	3.6	4.4	3.6
Airport	ACRES	-	-	-	-	-	-	-	0.5	0.0	0.5	0.0

TABLE 4



SOCIO-ECONOMIC VARIABLE	UNITS	PREFERRED ALT. QUANTITY	CC-D ALT. QUANTITY	CHANGE	% CHANGE
Single Family Housing	Dwelling Units	66,105	54,561	-11,544	-17.46%
Multi Family Housing	Dwelling Units	19,023	26,544	7,521	39.54%
Total - Housing	Dwelling Units	85,128	81,105	-4,023	-4.73%
Population		260,913	244,625	-16,288	-6.24%
Retail Employment	Employees	28,907	34,992	6,085	21.05%
Non-Retail Employment	Employees	60,642	67,483	6,841	11.28%
Total - Employment	Employees	89,549	102,475	12,926	14.43%

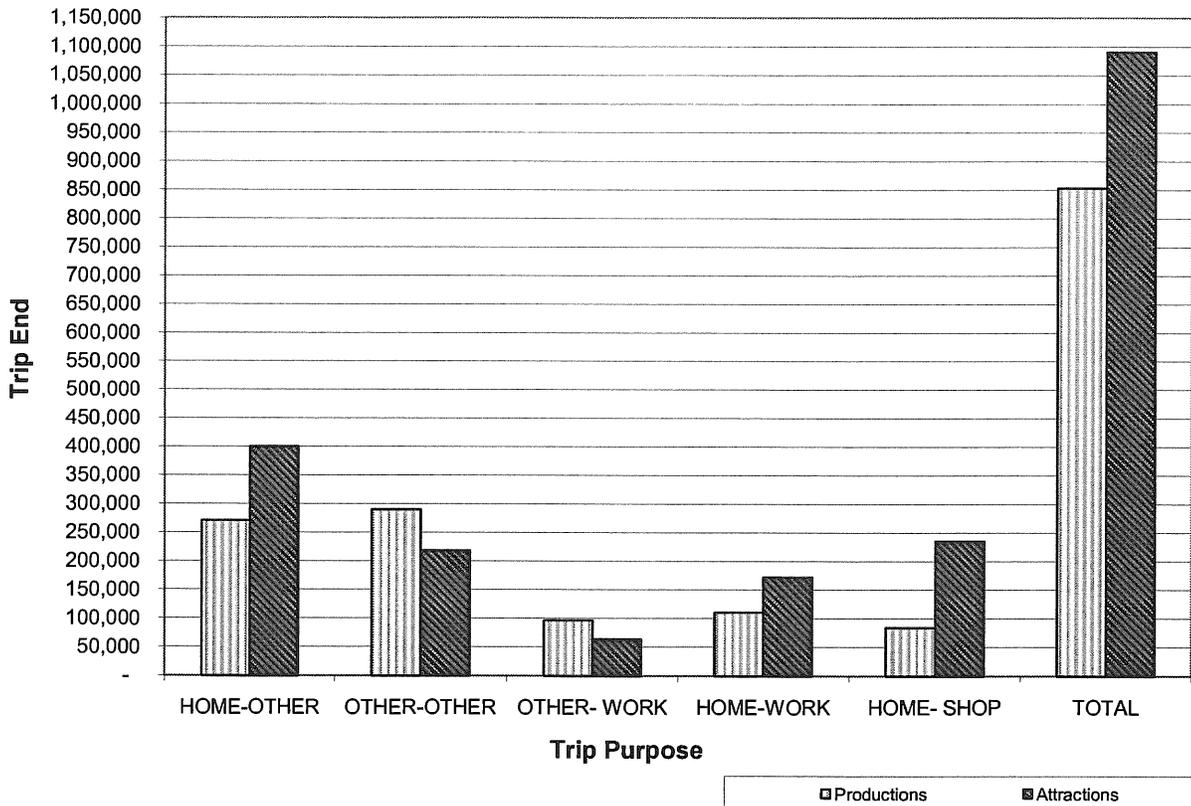
Source: City of Lake Elsinore

Note: Planning Area boundary has changed.

Employee per Household = 1.26

TABLE 5

**CITY OF LAKE ELSINORE PLANNING AREA CITY COUNCIL DIRECTED
GENERAL PLAN TOTAL UNBALANCED TRIP ENDS
(PRODUCTIONS AND ATTRACTIONS)**



		HOME-OTHER	OTHER-OTHER	OTHER-WORK	HOME-WORK	HOME-SHOP	TOTAL
Preferred GP Alternative	Productions	296,578	254,429	81,730	121,138	90,898	844,773
	Attractions	371,864	196,979	55,619	150,716	194,673	969,851
	TOTAL	668,442	451,408	137,349	271,854	285,571	1,814,624
	P - A	(75,286)	57,450	26,111	(29,578)	(103,775)	(125,078)
	P/A	0.80	1.29	1.47	0.80	0.47	0.87

CC-D GP Alternative	Productions	270,921	290,091	97,262	110,866	84,622	853,762
	Attractions	400,348	218,725	63,656	172,487	235,590	1,090,806
	TOTAL	671,269	508,816	160,918	283,353	320,212	1,944,568
	P - A	(129,427)	71,366	33,606	(61,621)	(150,968)	(237,044)
	P/A	0.68	1.33	1.53	0.64	0.36	0.78

CHANGE	Productions	(25,657)	35,662	15,532	(10,272)	(6,276)	8,989
	Attractions	28,484	21,746	8,037	21,771	40,917	120,955
% CHANGE	Productions	-8.65%	14.02%	19.00%	-8.48%	-6.90%	1.06%
	Attractions	7.66%	11.04%	14.45%	14.45%	21.02%	12.47%

Note: Planning Area boundary has changed.

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Table 6
(1 of 5)

**General Plan Buildout Conditions
Intersection Operations Analysis Summary**

Intersection		Traffic Control ³	Intersection Approach Lanes ¹												Average Delay ²		Level of Service ²		LOS Criteria
No.	Name		Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM	
1	Lake St. (NS) at:																		
	• I-15 NB Ramps (EW)																		
	- Existing Geometry	CSS	0	1	0	0	1	1	0	0	0	0	1	0					
	- Preferred Alt. Improv.	TS	2	1	0	0	1	1	0	0	0	2	0	1					
- Same Improvements	TS	2	1	0	0	1	1	0	0	0	2	0	1	39.6	41.5	D	D		
2	Lake St. (NS) at:																		
	• I-15 SB Ramps (EW)																		
	- Existing Geometry	CSS	0	1	1	0	1	0	1	0	1	0	0	0					
	- Preferred Alt. Improv.	TS	0	2	2	2	2	0	1	0	2	0	0	0					
- New Improvements	TS	0	2	2	2	2	0	1	0	1>>	0	0	0	5.3	6.4	A	A		
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					
	- Preferred Alt. Improv.	TS	2	2	0	0	2	1	2	0	1>	0	0	0					
- New Improvements	TS	2	3	0	1	3	1>>	2	1	1>	1	1	1	39.7	50.6	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>					
	- Preferred Alt. Improv.	TS	1	3	1	2	2	1	0	2	0	1	1	1>>					
- Same Improvements	TS	1	3	1	2	2	1	0	2	0	1	1	1>>	44.6	34.4	D	C		
5	Lakeshore Dr. (NS) at:																		
	• Riverside Dr. (EW)																		
	- Existing Geometry	TS	1	2	0	1	2	1	1	2	1	1	1	1					
	- Preferred Alt. Improv.	TS	2	3	0	2	2	2>	2	3	1	1	3	2>					
- Same Improvements	TS	2	3	0	2	2	2>	2	3	1	1	3	2>	32.6	36.5	C	D		
6	Lincoln St. (NS) at:																		
	• Riverside Dr. (EW)																		
	- Existing Geometry	TS	0	0	0	1	0	1	1	1	0	0	1	1					
	- Preferred Alt. Improv.	TS	0	0	0	1	0	1	1	3	0	0	3	1					
- Same Improvements	TS	0	0	0	1	0	1	1	3	0	0	3	1	33.2	22.4	C	C		
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					
	- Preferred Alt. Improv.	TS	1	0	1	0	0	0	2	2	0	0	2	1>>					
- New Improvements	TS	1	0	1>>	0	0	0	2	3	0	0	3	1>>	23.9	23.2	C	C		
8	I-15 NB Ramps (NS) at:																		
	• Central Av. (EW)																		
	- Existing Geometry	TS	1	0	1	0	0	0	1	2	0	0	2	1					
	- Preferred Alt. Improv.	TS	1.5	0	1.5	0	0	0	2	3	1	1	2	1					
- New Improvements	TS	2	0	2	0	0	0	0	3	1	0	3	1	26.1	25.8	C	C		

Table 6
(2 of 5)

**General Plan Buildout Conditions
Intersection Operations Analysis Summary**

No.	Intersection Name	Traffic Control ³	Intersection Approach Lanes ¹												Average Delay ²		Level of Service ²		LOS Criteria			
			Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM				
			L	T	R	L	T	R	L	T	R	L	T	R	L	T	R					
9	I-15 NB Ramps (NS) at:																					
	• Bundy Cyn. Rd. (EW)																					
	- Existing Geometry	TS	1	0	1	0	0	0	1	2	0	0	2	0								
	- Preferred Alt. Improv.	TS	1	0	1>>	0	0	0	2	2	0	0	2	1>>								
- New Improvements	TS	1.5	0	1.5	0	0	0	2	3	0	0	3	1	26.6	34.6			C	C			
10	I-15 SB Ramps (NS) at:																					
	• Nichols St. (EW)																					
	- Existing Geometry	CSS	0	0	0	1	0	1	0	1	1>>	1	1	0								
	- Preferred Alt. Improv.	TS	0	0	0	2	0	1	0	2	1>>	2	2	0								
- New Improvements	TS	0	0	0	3	0	2	0	3	1>>	2	3	0	37.3	45.7			D	D			
11	I-15 SB Ramps (NS) at:																					
	• Central Av. (EW)																					
	- Existing Geometry	TS	0	0	0	1	0	1	0	2	0	1	2	0								
	- Preferred Alt. Improv.	TS	0	0	0	0	0	1	0	2	1	2	2	0								
- New Improvements	TS	0	0	0	2	0	2	0	3	2	2	3	0	31.7	41.3			C	D			
12	I-15 SB Ramps (NS) at:																					
	• Bundy Cyn. Rd. (EW)																					
	- Existing Geometry	TS	0	0	0	1	0	1	0	2	0	1	2	0								
	- Preferred Alt. Improv.	TS	0	0	0	2	0	1	0	3	1	2	3	0								
- Same Improvements	TS	0	0	0	2	0	1	0	3	1	2	3	0	36.3	35.5			D	D			
13	Grand Av. (NS) at:																					
	• Grand Av.-Riverside Dr. (EW)																					
	- Existing Geometry	CSS	0	0	0	1	0	1	1	1	0	0	1	1								
	- Preferred Alt. Improv.	TS	0	0	0	1	0	1>	1	2	0	0	3	0								
- New Improvements	TS	0	0	0	1	0	1>>	2	2	0	0	3	0	19.4	26.5			B	C			
14	Grand Av. (NS) at:																					
	• Ortega Hwy./SR-74																					
	- Existing Geometry	AWS	0	1	0	0	1	1>>	1	0	1>>	0	0	0								
	- Preferred Alt. Improv.	TS	2	2	0	0	2	1>>	2	0	1>>	0	0	0								
- New Improvements	TS	2	3	0	0	3	1>>	2	0	1>>	0	0	0	33.6	20.2			C	C			
15	Collier Av. (NS) at:																					
	• Riverside Dr. (EW)																					
	- Existing Geometry	TS	1	1	0	1	1	1	0.5	0.5	1	0	1	0								
	- Preferred Alt. Improv.	TS	3	1	1	2	2	1>	1	2	2>	2	2	1								
- New Improvements	TS	3	2	1>	2	2	1>	1	2	2>	2	2	1	37.3	51.3			D	D			
16	Collier Av. (NS) at:																					
	• Central Av. (EW)																					
	- Existing Geometry	TS	1	1	1	2	2	1	2	2	0	2	1	2>								
	- Preferred Alt. Improv.	TS	1	2	3	3	1	1	2	3	0	2	2	2>								
- New Improvements	TS	1	2	2>	2.5	1.5	1	2	3	0	2	2	2>	31.8	45.1			C	D			

Table 6
(3 of 5)

**General Plan Buildout Conditions
Intersection Operations Analysis Summary**

Intersection		Traffic Control ³	Intersection Approach Lanes ¹												Average Delay ²		Level of Service ²		LOS Criteria
No.	Name		Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
17	Riverside St. (NS) at:																		
	• SR-74 (EW)																		
	- Existing Geometry	CSS	1	0	1	0	0	0	0	2	0	1	2	0					
	- Preferred Alt. Improv.	TS	1	3	1	2	2	1	2	4	0	1	4	1>					
- New Improvements	TS	1	2	1	2	2	1	1	4	1	1	4	1>	41.6	48.6	D	D		
18	Greenwald Av. (NS) at:																		
	• SR-74 (EW)																		
	- Existing Geometry	TS	1	1	0	1	1	0	1	2	1	1	2	0					
	- Preferred Alt. Improv.	TS	2	1	1>	1	1	0	1	4	0	2	3	0					
- Less Improvements	TS	1	1	1>	1	1	0	1	3	0	1	3	0	35.0	36.8	C	D		
19	Rosetta Cyn. Rd. (NS) at:																		
	• SR-74 (EW)																		
	- Existing Geometry	CSS	1	0	1	0	0	0	0	2	0	1	2	0					
	- Preferred Alt. Improv.	TS	1	0	1>	0	0	0	0	3	1	2	2	0					
- New Improvements	TS	1	0	2>	0	0	0	0	3	1>	2	3	0	23.3	23.9	C	C		
20	Cambern Av. (NS) at:																		
	• SR-74 (EW)																		
	- Existing Geometry	TS	1	1	0	0	1	1	2	2	0	1	1	1					
	- Preferred Alt. Improv.	TS	2	1	1>	2	1	2>	2	4	1	1	4	2					
- Same Improvements	TS	2	1	1>	2	1	2>	2	4	1	1	4	2	36.4	45.9	D	D		
21	Cambern Av. (NS) at:																		
	• 3rd St. (EW)																		
	- Existing Geometry	CSS	0	1	0	0	1	0	0	1	0	0	1	0					
	- Preferred Alt. Improv.	TS	1	1	0	1	1	0	1	1	0	1	1	0					
- Same Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	0	21.6	27.9	C	C		
22	Dexter Av. (NS) at:																		
	• 3rd St. (EW)																		
	- Existing Geometry	CSS	0	1	0	0	1	0	0	1	0	1	0	1					
	- Preferred Alt. Improv.	TS	1	1	0	1	1	0	1	1	0	1	1	0					
- Same Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	0	18.1	20.8	B	C		
23	Dexter Av. (NS) at:																		
	• 2nd St. (EW)																		
	- Existing Geometry	CSS	0	1	0	0	1	0	0	1	0	0	1	0					
	- Preferred Alt. Improv.	TS	1	1	0	1	1	0	1	1	0	1	1	0					
- Same Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	0	17.9	23.4	B	C		
24	Main St. (NS) at:																		
	• Camino Del Norte (EW)																		
	- Existing Geometry	CSS	1	0	1	0	0	0	0	1	1	1	1	0					
	- Preferred Alt. Improv.	TS	2	0	1	0	0	0	0	1	1	1	1	0					
- New Improvements	TS	1	0	2	0	0	0	0	1	1	2	1	0	27.7	29.4	C	C		

Table 6
(4 of 5)

**General Plan Buildout Conditions
Intersection Operations Analysis Summary**

Intersection		Traffic Control ³	Intersection Approach Lanes ¹												Average Delay ²		Level of Service ²		LOS Criteria
No.	Name		Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
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					
	- Preferred Alt. Improv.	TS	1.5	1.5	0	0	2	1	0	0	0	1	0	1					
- Same Improvements	TS	1.5	1.5	0	0	2	1	0	0	0	1	0	1	45.0	48.3	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					
	- Preferred Alt. Improv.	TS	0	2	1	1	1	0	1	0	1	0	0	0					
- New Improvements	TS	0	2	1	1	2	0	1	0	1	0	0	0	34.1	53.2	C	D		
27	Main St. (NS) at:																		
	• Graham Av. (EW)																		
	- Existing Geometry	CSS	0	1	0	0	1	0	0	1	1	0	1	0					
	- Preferred Alt. Improv.	TS	0	1	0	0	1	0	0	1	1	0	1	0					
- Same Improvements	TS	0	1	0	0	1	0	0	1	1	0	1	0	15.0	20.8	B	C		
28	Old Franklin St. (NS) at:																		
	• Auto Center Dr. (EW)																		
	- Existing Geometry	CSS	0	0	0	1	0	1	0	1	0	0	1	1					
	- Preferred Alt. Improv.	TS	1	1	0	1	1	0	1	1	0	1	1	1					
- New Configuration	TS	0	0	0	1	0	1	1	2	0	0	2	1	11.9	17.8	B	B		
29	Summerhill Dr.-Grape St. (NS) at:																		
	• Railroad Cyn. Rd. (EW)																		
	- Existing Geometry	TS	2	2	1	1	1	1>	2	2	0	1	3	0					
	- Preferred Alt. Improv.	TS	2	2	2>	2	1	2>	2	3	1>	2	4	1					
- New Improvements	TS	2	2	2>	2	1	2>	1.5	3.5	1	2.5	3.5	2>	50.3	54.5	D	D		
30	Grape St. (NS) at:		Intersection Does Not Exist																
	• I-15 NB Ramps (EW)																		
	- Existing Geometry		2			2													
- New Configuration	TS	1	2	0	0	2	2>	2	0	1	0	0	0	25.0	24.0	C	C		
31	Railroad Cyn. Rd. (NS) at:																		
	• Canyon Hills Rd. (EW)																		
	- Existing Geometry	TS	0	3	1	1	3	0	0	0	0	2	0	1					
	- Preferred Alt. Improv.	TS	1	3	1>	1	3	1	1	2	0	2	1	1					
- New Improvements	TS	1	4	1>	2	3	1	1	2	0	2	1	1>	34.8	47.6	C	D		
32	Casino Dr. (NS) at:		Intersection Does Not Exist																
	• I-15 SB Ramps (EW)																		
	- Existing Geometry		2			2													
- New Configuration	TS	0	2	1	2	2	0	0	0	0	1	0	1>>	33.0	40.5	C	D		

Table 6
(5 of 5)

**General Plan Buildout Conditions
Intersection Operations Analysis Summary**

Intersection		Traffic Control ³	Intersection Approach Lanes ¹												Average Delay ²		Level of Service ²		LOS Criteria
No.	Name		Northbound			Southbound			Eastbound			Westbound			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
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					
	- Preferred Alt. Improv.	TS	2	3	1	2	2	1>	2	2	1>	1	3	2>					
	- New Improvements	TS	2	3	1	2	3	2>	2	2	1>	1	3	2>	41.5	51.9	D	D	
34	Mission Trail (NS) at:																		
	• Malaga Rd. (EW)																		
	- Existing Geometry	TS	1	2	0	1	2	0	1	1	1	1	2	0					
	- Preferred Alt. Improv.	TS	1	2	0	2	2	0	1	1	1	2	2	0					
	- New Improvements	TS	1	2	1	2	2	0	1	1	1	2	1	1>	33.6	51.3	C	D	
35	Mission Trail (NS) at:																		
	• Corydon Rd. (EW)																		
	- Existing Geometry	TS	1	2	0	0	2	1>	1	0	1	0	0	0					
	- Preferred Alt. Improv.	TS	1	2	0	0	2	1>	1	0	1	0	0	0					
	- New Improvements	TS	1	2	0	0	2	1>	2	0	1	0	0	0	19.5	45	B	D	
36	Mission Trail (NS) at:																		
	• Bundy Cyn. Rd. (EW)																		
	- Existing Geometry	TS	1	2	0	1	2	0	0	1	0	1	1	0					
	- Preferred Alt. Improv.	TS	1	2	1	2	1	1>	1	2	1	2	1	1>					
	- New Improvements	TS	1	2	1	2	1	1>	1	2	1	1	2	1>	38.8	48.8	D	D	
37	Grand Av. (NS) at:																		
	• Corydon Rd. (EW)																		
	- Existing Geometry	TS	1	1	0	1	1	0	0	1	0	1	1	0					
	- Preferred Alt. Improv.	TS	1	3	0	2	2	0	0	1	0	1	1	0					
	- New Improvements	TS	1	3	1	2	2	0	0	1	0	1	1	0	22.6	40.5	C	D	
38	Auto Ctr. Dr.-Casino Dr. (NS) at:																		
	• Railroad Cyn. Rd. (EW)																		
	- Existing Geometry	TS	1	2	0	1	2	0	1	3	0	2	2	0					
	- Preferred Alt. Improv.		Not Analyzed Previously																
	- New Configuration	TS	2	2	2>	2	2	1>	2	3	1>	2	3	1>	37.1	52.6	D	D	

¹ 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 Phasing; **BOLD** = Improvements consistent with previously published Preferred Alternative, **BOLD/UNDERLINE** = New (Additional) Improvements; Underline = Maximum Improvements
Shaded Improvement = Maximum feasible improvement (applicable state and / or local LOS criteria not met)

² 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.

³ CSS = Cross Street Stop; TS = Traffic Signal





November 27, 2007

Mr. Rolfe M. Preisendanz
CITY OF LAKE ELSINORE
130 South Main Street
Lake Elsinore, CA 92530

Subject: Updated Lake Elsinore General Plan Land Use Alternatives Trip Generation Evaluation

Dear Mr. Preisandanz:

Updated City of Lake Elsinore future land use data was obtained from Jones & Stokes Associates and used to prepare the trip generation evaluation summarized in this letter report. Table 1 summarizes the land use change from the data included in the City of Lake Elsinore General Plan Traffic Study (Urban Crossroads, Inc., January 24, 2007), hereafter referred to as the Traffic Study. Land use designations that have changed by 1,000 acres or more for the Preferred General Plan scenario include Hillside Residential (increases by 3,410 acres) and Low-Medium Density Residential (decreases by 1,546 acres). The total land use for the Preferred General Plan scenario has increased by 924 acres. Commercial uses increase overall by approximately 300 acres.

Alternative 1 experiences an increase in Hillside Residential and Recreation of more than 1,000 acres, and a decrease in Low-Medium Density Residential and Medium Density Residential of more than 1,000 acres. The total land use for Alternative 1 has decreased by 88 acres. Alternative 2 includes an increase of over 1,000 acres of Medium Density Residential with decreases in Hillside Residential and Recreation. The total land use for Alternative 2 has increased by 201 acres. The total acreage is different for each alternative.

The updated future land use data has been converted into socio-economic data (SED), generally using the same non-residential factors as in the Traffic Study. Table 2 shows the conversion factors from the Traffic Study, updated to reflect the revised mixed-use residential / commercial splits provided for this work effort. The housing and population density factors were provided by Jones & Stokes Associates for each alternative, and are included in Table 3. Attachment A contains the spreadsheets used by Urban Crossroads, Inc. to convert the land use data to SED.

SED for the Preferred scenario is shown on Chart A. As compared with the Traffic Study, there is a decrease of approximately 13,000 dwelling units, with a corresponding increase of approximately 3,000 employees. Retail employees are also a larger share of employment. The residential change reflects both changes to the acreage by category and the housing density assumptions. Chart B shows the trip generation for the Preferred scenario. As shown on Chart B, there are approximately 1,935,949 daily trips generated. Chart B also provides a comparison of current Preferred scenario trip generation to the trip generation in the Traffic Study. As shown in Chart B, the revisions to the land use plan result in an increase of approximately 121,325 daily trips. As compared to the previous trip generation for the planning area, this is an increase of approximately 6.7 percent.

The trip generation increase is directly related to the previously noted increase in retail employment. Review of the detailed data disaggregated by land use District indicates that the increase occurs primarily in the Alberhill and East Lake Districts. An increase in Business Professional use is also noted in the North Central Sphere area. Detailed analysis has recently been completed for anticipated development in the East Lake District (Lake Elsinore Back Basin Traffic Phasing Analysis, Urban Crossroads, Inc., July 2005). This detailed analysis evaluated the proposed land uses for the overall 396 acre East Lake Specific Plan, consistent with the most current Preferred General Plan

Land Use Alternative, and the increase in retail activity in this area can be accommodated by the planned roadway system in this area. Similarly, additional recent analysis specifically addressing the Preferred Land Use Plan uses for the 3rd Street 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 Traffic Engineering Services, Urban Crossroads, Inc., August, 2007) and indicates that the proposed land uses, consistent with the updated land use plan addressed in this supplemental analysis, will not adversely affect traffic conditions in the potential impact area.

Based upon further review of the primary traffic study technical analysis, adequate roadway capacity is also available for the increased retail development projected for the Alberhill District. However, the most recent comprehensive analysis completed for the overall Alberhill Specific Plan was completed in 1991. Therefore, it is recommended that additional detailed analysis be completed at a project level for long range conditions in conjunction with ongoing development in the Alberhill Specific Plan area. Based upon this evaluation, the increased trip generation for this alternative can be accommodated by the proposed General Plan Circulation Element roadway system. No change in the conclusions of the primary traffic study report are anticipated for the General Plan Preferred Alternative scenario, based upon the updated land use and subsequent traffic analysis presented in this report and other recent reports addressing key areas of land use changes.

Alternative 1 SED is shown on Chart C. As compared with the Traffic Study, there is a decrease of approximately 48,000 dwelling units, with a corresponding increase of approximately 5,000 employees. Retail employees are a larger share of employment. Chart D shows the trip generation for the Alternative 1 scenario. As shown on Chart D, there are approximately 1,585,484 daily trips generated. Chart D also provides a

comparison of current Alternative 1 scenario trip generation to the trip generation in the Traffic Study. As shown in Chart D, the revisions to the land use plan result in a decrease of approximately 283,410 daily trips. Compared to the previously published trip generation for the planning area, this is a decrease of approximately 15.2 percent. The roadway system presented in the previously published traffic study report will be adequate with respect to the updated land use data.

Alternative 2 SED is shown on Chart E. Compared with the Traffic Study, there is an increase of approximately 32,000 dwelling units, with an increase of approximately 17,000 employees. Retail employees are a larger share of employment. Chart F shows the trip generation for the Alternative 2 scenario. As shown on Chart F, there are approximately 2,322,546 daily trips generated. Chart F also provides a comparison of current Alternative 2 scenario trip generation to the trip generation in the Traffic Study. As shown in Chart F, the revisions to the land use plan result in an increase of approximately 726,186 daily trips. As compared to the previous trip generation for the planning area, this is an increase of approximately 45.5 percent. Accommodating nearly 50% more trips would require widening the entire arterial roadway system by 50% (e.g., 4 lane roads would now require widening to 6 lane roads, and 6 lane roads would require widening to 9 or 10 lane roads, while 8 lane roads would require widening to 12 lane roads.). Based on the substantial increase in land use intensity for all types of use (residential and non-residential) and the lack of available right of way in many parts of the City for a 50% widening of roadways beyond the currently proposed roadway system, it is concluded that the impact of this alternative would be significant and unmitigable. Many, if not all, study area roadway intersections would be expected to operate at unacceptable levels of service.

SUMMARY AND RECOMMENDATIONS

Trip generation for the revised Preferred General Plan Land Use scenario is higher by 121,325 daily trips, or 6.7%, than previously analyzed. The trip generation increase is directly related to the previously noted increase in retail employment. Review of the detailed data disaggregated by land use District indicates that the increase occurs primarily in the Alberhill and East Lake Districts. Detailed analysis has recently been completed for anticipated development in the East Lake District and the 3rd Street Annexation Area of the North Central Sphere area, and the increase in retail activity in this area can be accommodated by the planned roadway system in this area. Based upon further review of the primary traffic study technical analysis, adequate roadway capacity is also available for the increased retail development projected for the Alberhill District. However, the most recent comprehensive analysis completed for the overall Alberhill Specific Plan was completed in 1991. Therefore, it is recommended that additional detailed analysis be completed at a project level for long range conditions in conjunction with ongoing development in the Alberhill Specific Plan area. Based upon this evaluation, the increased trip generation for this alternative can be accommodated by the proposed General Plan Circulation Element roadway system. No change in the conclusions of the primary traffic study report with respect to levels of service or right of way requirements are anticipated for the General Plan Preferred Alternative scenario, based upon the updated land use and subsequent traffic analysis presented in this report and other recent reports addressing key areas of land use changes. Adequate right of way per the recommended roadway system will be available to provide acceptable levels of service to traffic using the City of Lake Elsinore roadway system.

Trip generation for the revised Alternative 1 General Plan land use scenario decreases by approximately 3,410 daily trips, and can be accommodated by the planned roadway system. Trip generation for the revised Alternative 2 General Plan land use scenario

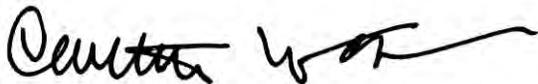
Mr. Rolfe M. Preisendanz
CITY OF LAKE ELSINORE
November 27, 2007
Page 6

increases by 726,186 daily trips, or approximately 45.5 percent. Based on the substantial increase in land use intensity for all types of use (residential and non-residential), it is concluded that the impact of this alternative would be significant and unmitigable. Accommodating nearly 50% more trips would require widening the entire arterial roadway system by 50% (e.g., 4 lane roads would now require widening to 6 lane roads, and 6 lane roads would require widening to 9 or 10 lane roads, while 8 lane roads would require widening to 12 lane roads.). Based on the substantial increase in land use intensity for all types of use (residential and non-residential) and the lack of available right of way in many parts of the City for a 50% widening of roadways beyond the currently proposed roadway system, it is concluded that the impact of this alternative would be significant and unmitigable. Many, if not all, study area roadway intersections would be expected to operate at unacceptable levels of service.

Urban Crossroads, Inc. is pleased to provide this analysis for your use. Please let us know if you have any comments or questions.

Respectfully submitted,

URBAN CROSSROADS, INC.



Carleton Waters, P.E.
Principal

CW:MW:lr
JN: 05059-05

Attachment

xc: Ms. Brooke Peterson, JONES & STOKES ASSOCIATES
Ms. Sandra Massa-Lavitt, CITY OF LAKE ELSINORE

ATTACHMENT A

LAND USE CONVERSION TO SOCIO-ECONOMIC DATA

TABLE 1

GENERAL PLAN LAND USE ACREAGE SUMMARY

PREFERRED GENERAL PLAN LAND USE				
	Previous	Updated	Δ	Δ %
Hillside Residential	8938	12348	3410	28%
Low Density Residential	5604	4706	-898	-19%
Low-Medium Residential	13305	11759	-1546	-13%
Medium Density Residential	841	795	-46	-6%
High Density Residential	311	332	21	6%
Residential Subtotal	28999	29940	941	3%
Neighborhood Commercial	38	36	-2	-6%
General Commercial	895	1223	328	27%
Tourist Commercial	201	165	-36	-22%
Commercial Subtotal	1134	1424	290	20%
Freeway Business	293	0	-293	-
Limited Industrial	974	919	-55	-6%
Industrial Business Park	273	367	94	26%
Public /Institutional	498	486	-12	-2%
Commercial Mixed Use	190	330	140	42%
Residential Mixed Use	341	245	-96	-39%
Recreation	1836	1913	77	4%
Airport Use Area	162	0	-162	-
Non-Residential/Commercial Subtotal	4567	4260	-307	-7%
Total	34700	35624	924	3%

ALTERNATIVE 1 GENERAL PLAN LAND USE				
	Previous	Updated	Δ	Δ %
Hillside Residential	8138	9816	1678	17%
Low Density Residential	4853	4995	142	3%
Low-Medium Residential	13330	11770	-1560	-13%
Medium Density Residential	1825	628	-1197	-191%
High Density Residential	227	221	-6	-3%
Residential Subtotal	28373	27430	-943	-3%
Neighborhood Commercial	40	39	-1	-3%
General Commercial	878	1136	258	23%
Tourist Commercial	171	177	6	3%
Commercial Subtotal	1089	1352	263	19%
Freeway Business	293	0	-293	-
Limited Industrial	877	872	-5	-1%
Industrial Business Park	0	172	172	100%
Public /Institutional	399	391	-8	-2%
Commercial Mixed Use	210	161	-49	-30%
Residential Mixed Use	455	287	-168	-59%
Recreation	2333	3438	1105	32%
Airport Use Area	162	0	-162	-
Non-Residential/Commercial Subtotal	4729	5321	592	11%
Total	34191	34103	-88	0%

ALTERNATIVE 2 GENERAL PLAN LAND USE				
	Previous	Updated	Δ	Δ %
Hillside Residential	9574	8032	-1542	-19%
Low Density Residential	4973	4921	-52	-1%
Low-Medium Residential	12215	13104	889	7%
Medium Density Residential	629	1909	1280	67%
High Density Residential	222.96	218	-5	-2%
Residential Subtotal	27613	28184	571	2%
Neighborhood Commercial	39	40	1	3%
General Commercial	820	1292	472	37%
Tourist Commercial	178	171	-7	-4%
Commercial Subtotal	1037	1503	466	31%
Freeway Business	293	0	-293	-
Limited Industrial	872	877	5	1%
Industrial Business Park	0	297	297	100%
Public /Institutional	402	389	-13	-3%
Commercial Mixed Use	72	313	241	77%
Residential Mixed Use	364	416	52	13%
Recreation	3457	2331	-1126	-48%
Airport Use Area	0	0	0	-
Non-Residential/Commercial Subtotal	5459	4623	-836	-18%
Total	34109	34310	201	1%

TABLE 2

LAND USE TO SED CONVERSION FACTORS

Land Use Description	Base Units	Gross Net to Acre Ratio	Density Range	Mid-Range Density				Employee/gross AC			Employee/net AC		
				SFDU	MFDU	TOTAL DU	POP Per		Total	Retail	Total	Retail	
							SFDU	MFDU					
RESIDENTIAL													
Hillside Residential	ACRES	-	0.1 DU / ACRE	0.25	-	0.25	3.17	-	-	-	-	-	
Low Density	ACRES	-	1 DU / ACRE	1	-	1	3.17	-	-	-	-	-	
Low Medium	ACRES	-	2 to 6 DU / ACRE	4	-	4	3.17	-	-	-	-	-	
Medium Density	ACRES	-	6 to 18 DU / ACRE	6	6	12	3.17	2.7	-	-	-	-	
High Density	ACRES	-	24 DU/1 ACRE with possible bonus to 35 DU/1 ACRE	-	18	18	-	2.7	-	-	-	-	
COMMERCIAL													
Comm Neighborhood	ACRES	0.8	-	-	-	-	-	-	25	22	31	28	
Comm General	ACRES	0.8	-	-	-	-	-	-	26	21	33	26	
Comm Tourist	ACRES	0.8	-	-	-	-	-	-	27	19	34	24	
INDUSTRIAL													
Fwy Business	ACRES	0.8	-	-	-	-	-	-	28	0	35	0	
Ind Ltd	ACRES	0.8	-	-	-	-	-	-	26	0	33	0	
OFFICE													
Ind BP	ACRES	0.8	-	-	-	-	-	-	33	2	41	2	
Public Institution	ACRES	0.8	-	-	-	-	-	-	15	2	19	2	
MIXED USE													
Commercial MU	ACRES	0.8	60% Commercial	-	-	-	-	-	16	13	20	16	
		-	40% Residential	-	10	-	-	2.7	-	-	-	-	
Residential MU	ACRES	0.8	40% Commercial	-	-	-	-	-	11	9	13	11	
		-	60% Residential	-	14	-	-	2.7	-	-	-	-	
OTHER													
Recreation	ACRES	-	-	-	-	-	-	-	2.2	0.3	2.2	0.3	
Airport	ACRES	-	-	-	-	-	-	-	0.5	0.0	0.5	0.0	

TABLE 3

POPULATION AND HOUSING BY LAND USE

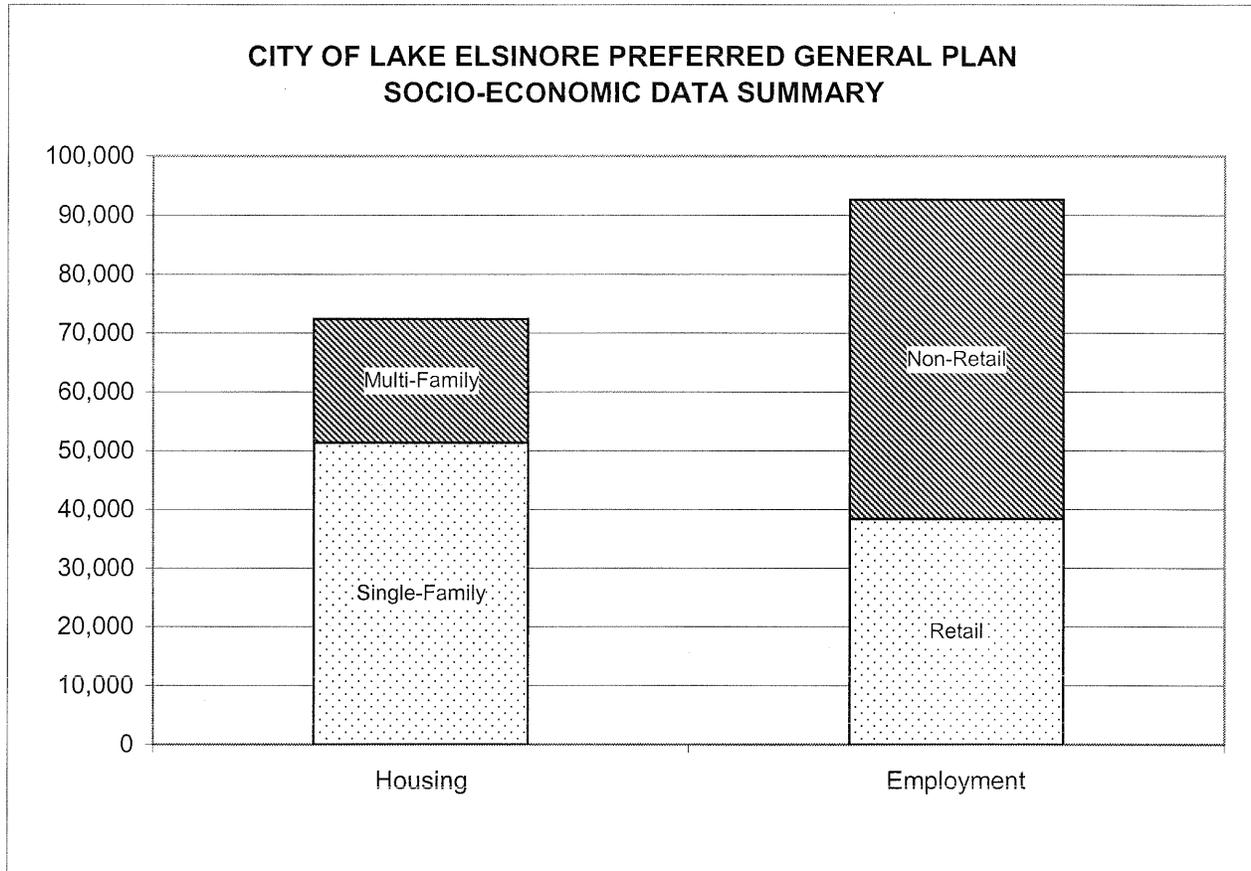
PREFERRED GENERAL PLAN LAND USE			
	%	Density	People/Unit
Hillside Residential	100	0.25	3.17
Low Density Residential	100	0.5	3.17
Low-Medium Residential	100	3.5	3.17
Medium Density Residential	100	12	2.7
High Density Residential	100	21	2.7
Commercial Mixed Use	40	12.5	2.7
Residential Mixed Use	60	21	2.7

ALTERNATIVE 1 GENERAL PLAN LAND USE			
	%	Density	People/Unit
Hillside Residential	100	0.25	3.17
Low Density Residential	100	0.5	3.17
Low-Medium Residential	100	2	3.17
Medium Density Residential	100	12	2.7
High Density Residential	100	21	2.7
Commercial Mixed Use	40	12.5	2.7
Residential Mixed Use	60	21	2.7

ALTERNATIVE 2 GENERAL PLAN LAND USE			
	%	Density	People/Unit
Hillside Residential	100	0.25	3.17
Low Density Residential	100	1	3.17
Low-Medium Residential	100	4	3.17
Medium Density Residential	100	14	2.7
High Density Residential	100	24	2.7
Commercial Mixed Use	40	18	2.7
Residential Mixed Use	60	24	2.7

U:\UcJobs_04600-05000\05000\05059\Excel\LU_071030\LU_Comparison_updated

CHART A



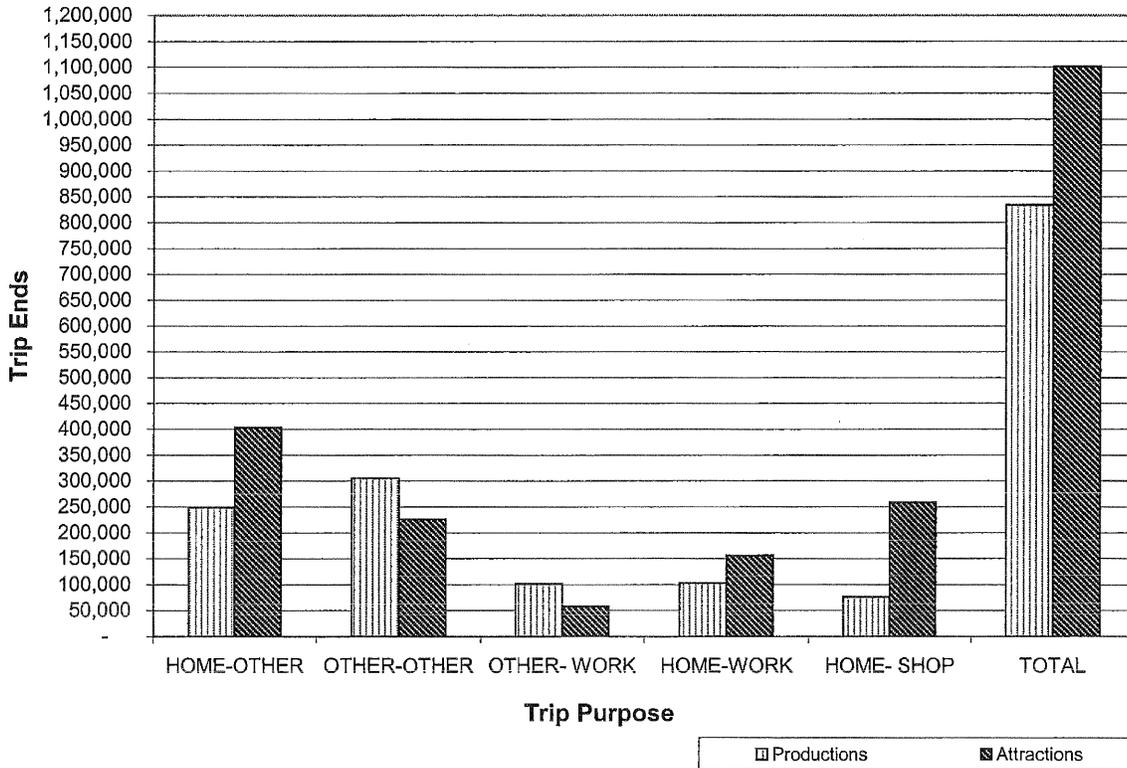
SOCIO-ECONOMIC VARIABLE	QUANTITY ¹	UNITS
Single Family Housing	51,367	Dwelling Units
Multi Family Housing	21,012	Dwelling Units
Total - Housing	72,379	Dwelling Units
Population	217,322	
Retail Employment	38,385	Employees
Non-Retail Employment	54,247	Employees
Total - Employment	92,632	Employees

Employee per Household = 1.28

¹ Housing and population are slightly higher than the figures cited in the land use section of the Draft Environmental Impact Report (DEIR). The differences are less than 10% and provide for a conservative worst case analysis based on allowable densities. The differences do not affect the findings and conclusions of the DEIR or this supplemental analysis letter.

CHART B

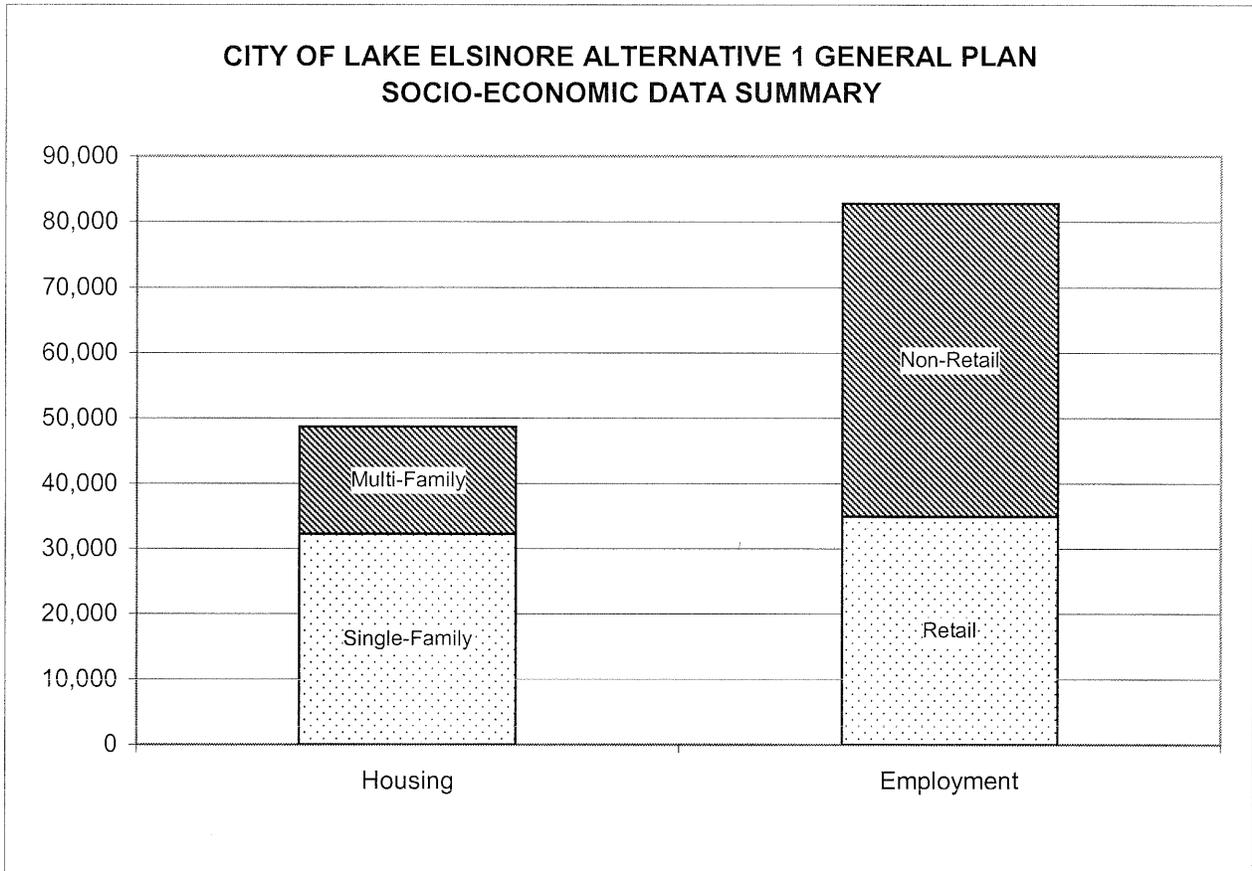
CITY OF LAKE ELSINORE PLANNING AREA PREFERRED GENERAL PLAN
TOTAL UNBALANCED TRIP ENDS (PRODUCTIONS AND ATTRACTIONS)



	HOME-OTHER	OTHER-OTHER	OTHER-WORK	HOME-WORK	HOME-SHOP	TOTAL
Productions	248,728	305,547	101,203	102,758	76,002	834,238
Attractions	403,636	225,944	57,617	155,992	258,522	1,101,711
TOTAL	652,364	531,491	158,820	258,750	334,524	1,935,949
P - A	(154,908)	79,603	43,586	(53,234)	(182,520)	(267,473)
P/A	0.62	1.35	1.76	0.66	0.29	0.76

Previous Total	668,442	451,408	137,349	271,854	285,571	1,814,624
Δ	(16,078)	80,083	21,471	(13,104)	48,953	121,325
Δ %	-2.4%	17.7%	15.6%	-4.8%	17.1%	6.7%

CHART C

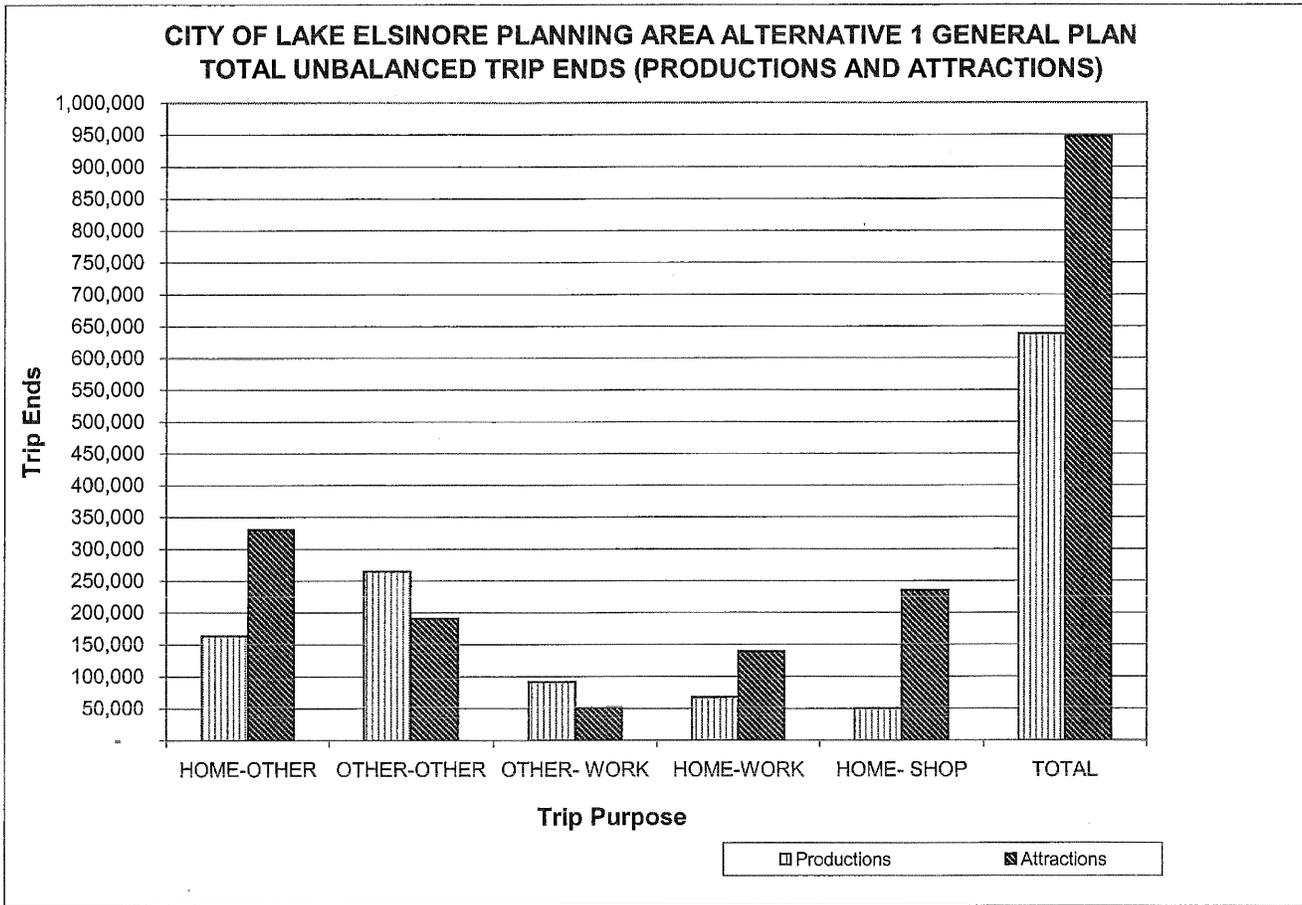


SOCIO-ECONOMIC VARIABLE	QUANTITY	UNITS¹
Single Family Housing	32,260	Dwelling Units
Multi Family Housing	16,449	Dwelling Units
Total - Housing	48,709	Dwelling Units
Population	144,903	
Retail Employment	34,910	Employees
Non-Retail Employment	47,890	Employees
Total - Employment	82,800	Employees

Employee per Household = 1.70

¹ Housing and population are slightly higher than the figures cited in the land use section of the Draft Environmental Impact Report (DEIR). The differences are less than 10% and provide for a conservative worst case analysis based on allowable densities. The differences do not affect the findings and conclusions of the DEIR or this supplemental analysis letter.

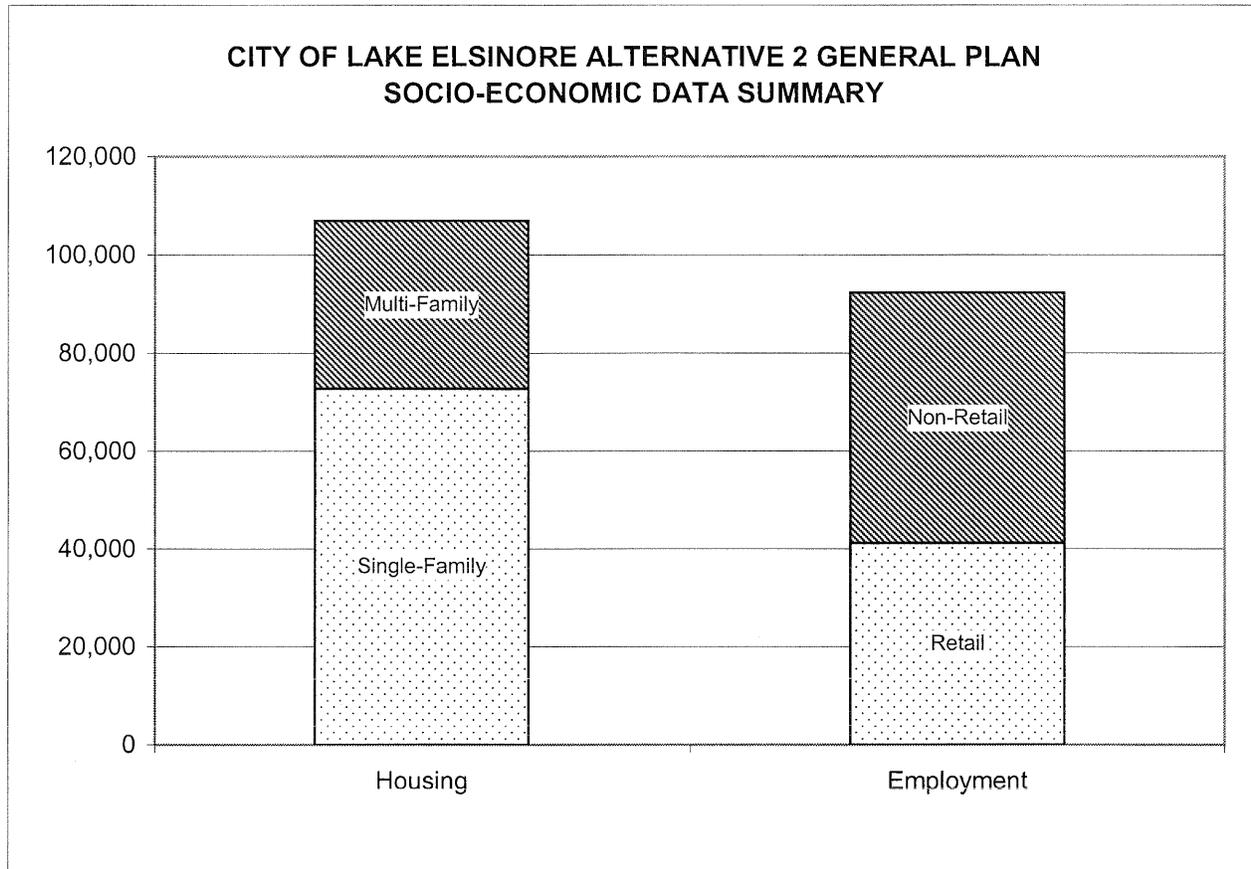
CHART D



	HOME-OTHER	OTHER-OTHER	OTHER-WORK	HOME-WORK	HOME-SHOP	TOTAL
Productions	163,781	264,647	91,633	67,771	50,443	638,275
Attractions	330,226	190,879	51,501	139,435	235,118	947,159
TOTAL	494,007	455,526	143,134	207,206	285,561	1,585,434
P - A	(166,445)	73,768	40,132	(71,664)	(184,675)	(308,884)
P/A	0.50	1.39	1.78	0.49	0.21	0.67

Previous Total	722,903	462,559	125,065	265,714	292,603	1,868,844
Δ	(228,896)	(7,033)	18,069	(58,508)	(7,042)	(283,410)
Δ %	-31.7%	-1.5%	14.4%	-22.0%	-2.4%	-15.2%

CHART E



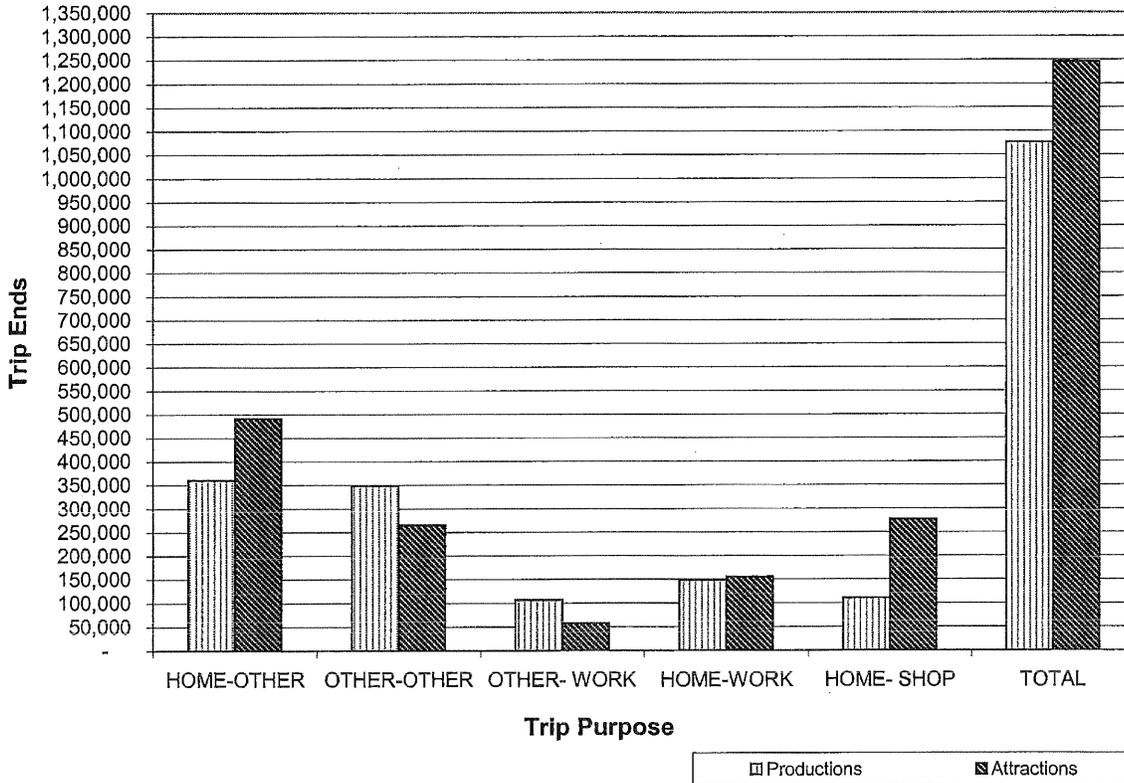
SOCIO-ECONOMIC VARIABLE	QUANTITY	UNITS ¹
Single Family Housing	72,708	Dwelling Units
Multi Family Housing	34,213	Dwelling Units
Total - Housing	106,921	Dwelling Units
Population	316,579	
Retail Employment	41,145	Employees
Non-Retail Employment	51,214	Employees
Total - Employment	92,359	Employees

Employee per Household = 0.86

¹ Housing and population are slightly higher than the figures cited in the land use section of the Draft Environmental Impact Report (DEIR). The differences are less than 10% and provide for a conservative worst case analysis based on allowable densities. The differences do not affect the findings and conclusions of the DEIR or this supplemental analysis letter.

CHART F

CITY OF LAKE ELSINORE PLANNING AREA ALTERNATIVE 2 GENERAL PLAN
TOTAL UNBALANCED TRIP ENDS (PRODUCTIONS AND ATTRACTIONS)



	HOME-OTHER	OTHER-OTHER	OTHER-WORK	HOME-WORK	HOME-SHOP	TOTAL
Productions	360,897	348,508	106,524	149,210	110,843	1,075,982
Attractions	491,117	265,356	57,448	155,532	277,111	1,246,564
TOTAL	852,014	613,864	163,972	304,742	387,954	2,322,546
P - A	(130,220)	83,152	49,076	(6,322)	(166,268)	(170,582)
P/A	0.73	1.31	1.85	0.96	0.40	0.86

Previous Total	593,445	397,803	117,815	235,241	252,056	1,596,360
Δ	258,569	216,061	46,157	69,501	135,898	726,186
Δ %	43.6%	54.3%	39.2%	29.5%	53.9%	45.5%

TABLE 3

ECONOMIC DATA CONVERSION SUMMARY

LAKE ELSINORE PREFERRED LAND USE SUMMARY (IN ACRES):

LAKE ELSINORE PLANNING AREA	Hillside Residential	Low Density Residential	Low-Medium Residential	Medium Density Residential	High Density Residential	Neighborhood Commercial	General Commercial	Tourist Commercial	Freeway Business	Limited Industrial	Industrial Business Park	Public /Institutional	Commercial Mixed Use	Residential Mixed Use	Recreation	Airport Use Area	Grand Total
ACREAGE	12,348	4,706	11,759	795	332	36	1,223	165	0	919	357	486	330	245	1,913	0	35,624

LAND USE DATA TO SED CONVERSION FACTOR:

FACTORS	Hillside Residential (0.1 du / ac)	Low Density Residential (1 du / ac)	Low-Medium Residential (2 to 6 du / ac)	Medium Density Residential (6 to 18 du / ac)	High Density Residential (18 to 35 du / ac)	Neighborhood Commercial	General Commercial	Tourist Commercial	Freeway Business	Limited Industrial	Industrial Business Park	Public /Institutional	Commercial Mixed Use	Residential Mixed Use	Recreation	Airport Use Area
SF DU Factor	0.25	0.5	3.5	6	0	0	0	0	0	0	0	0	0	0	0	0
MF DU Factor	0	0	0	6	21	0	0	0	0	0	0	0	12.5	21	0	0
POP	3.17	3.17	3.17	2.70	2.7	0	0	0	0	0	0	0	2.7	2.7	0	0
RE	0	0	0	0	0	22	21	19	0	2	0	2	13	9	0.3	0
TE	0	0	0	0	0	25	26	27	28	26	33	15	16	11	2.2	0.5

LAKE ELSINORE PREFERRED SOCIO-ECONOMIC DATA SUMMARY:

SED	Hillside Residential	Low Density Residential	Low-Medium Residential	Medium Density Residential	High Density Residential	Neighborhood Commercial	General Commercial	Tourist Commercial	Freeway Business	Limited Industrial	Industrial Business Park	Public /Institutional	Commercial Mixed Use	Residential Mixed Use	Recreation	Airport Use Area	Grand Total
Single Family DU	3,087	2,353	41,157	4,770	6,972	0	0	0	0	0	0	0	0	0	0	0	51,367
Multi Family DU	0	0	0	4,770	18,824	0	0	0	0	0	0	0	4,125	5,145	0	0	21,012
Population	9,786	7,459	130,466	25,768	51,367	0	0	0	0	0	0	0	11,138	13,892	0	0	217,322
Retail Employment						792	25683	3135	0	0	734	972	4230	2295	574	0	38,385
Total Employment						900	31,798	4,455	0	23,894	12,111	7,290	5,280	2,695	4,209	0	92,632

Total DU (SF + MF)= 72,379
 Population /DU= 3.0
 Tot Employee /HH= 1.28

TABLE 3

LAND USE TO SOCIO-ECONOMIC DATA CONVERSION SUMMARY

LAKE ELSINORE ALTERNATIVE 1 LAND USE SUMMARY (IN ACRES):

LAKE ELSINORE PLANNING AREA	Hillside Residential	Low Density Residential	Low-Medium Residential	Medium Density Residential	High Density Residential	Neighborhood Commercial	General Commercial	Tourist Commercial	Freeway Business	Limited Industrial	Industrial Business Park	Public /Institutional	Commercial Mixed Use	Residential Mixed Use	Recreation	Airport Use Area	Grand Total
ACREAGE	9,816	4,995	11,770	628	221	39	1,136	177	0	872	172	391	161	287	3,438	0	34,103

LAND USE DATA TO SED CONVERSION FACTOR:

FACTORS	Hillside Residential (0.1 du / ac)	Low Density Residential (1 du / ac)	Low-Medium Residential (2 to 6 du / ac)	Medium Density Residential (6 to 18 du / ac)	High Density Residential (18 to 35 du / ac)	Neighborhood Commercial	General Commercial	Tourist Commercial	Freeway Business	Limited Industrial	Business Park	Public /Institutional	Commercial Mixed Use	Residential Mixed Use	Recreation	Airport Use Area
SF DU Factor	0.25	0.5	2	6	0	0	0	0	0	0	0	0	0	0	0	0
MF DU Factor	0	0	0	6	21	0	0	0	0	0	0	0	12.5	21	0	0
POP	3.17	3.17	3.17	2.70	2.7	0	0	0	0	0	0	0	2.7	2.7	0	0
RE	0	0	0	0	0	22	21	19	2	2	2	2	13	9	0.3	0
TE	0	0	0	0	0	25	26	27	28	26	33	15	16	11	2.2	0.5

LAKE ELSINORE PREFERRED SOCIO-ECONOMIC DATA SUMMARY:

SED	Hillside Residential	Low Density Residential	Low-Medium Residential	Medium Density Residential	High Density Residential	Neighborhood Commercial	General Commercial	Tourist Commercial	Freeway Business	Limited Industrial	Business Park	Public /Institutional	Commercial Mixed Use	Residential Mixed Use	Recreation	Airport Use Area	Grand Total
Single Family DU	2,454	2,498	23,540	3,768	0	0	0	0	0	0	0	0	0	0	0	0	32,260
Multi Family DU	0	0	0	3,768	4,641	0	0	0	0	0	0	0	2,013	6,027	0	0	16,449
Population	7,779	7,917	74,622	20,347	12,531	0	0	0	0	0	0	0	5,434	16,273	0	0	144,903
Retail Employment	0	0	0	0	0	858	23566	3363	0	0	344	782	2093	2583	1031	0	34,910
Total Employment	0	0	0	0	0	975	29,536	4,779	0	22,672	5,676	5,865	2,576	3,157	7,564	0	82,800

Total DU (SF + MF)= 48,708
 Population /DU= 3.0
 Tot Employee /HH= 1.70

TABLE 3

LAND USE TO SOCIO-ECONOMIC DATA CONVERSION SUMMARY

LAKE ELSINORE ALTERNATIVE 2 LAND USE SUMMARY (IN ACRES):

LAKE ELSINORE PLANNING AREA	Hillside Residential	Low Density Residential	Low-Medium Residential	Medium Density Residential	High Density Residential	Neighborhood Commercial	General Commercial	Tourist Commercial	Freeway Business	Limited Industrial	Industrial Business Park	Public /Institutional	Commercial Mixed Use	Residential Mixed Use	Recreation	Airport Use Area	Grand Total
ACREAGE	8,032	4,921	13,104	1,909	218	40	1,292	171	0	877	297	389	313	416	2,331	0	34,310

LAND USE DATA TO SED CONVERSION FACTOR:

FACTORS	Hillside Residential (0.1 du / ac)	Low Density Residential (1 du / ac)	Low-Medium Residential (2 to 6 du / ac)	Medium Density Residential (6 to 18 du / ac)	High Density Residential (18 to 35 du / ac)	Neighborhood Commercial	General Commercial	Tourist Commercial	Freeway Business	Limited Industrial	Industrial Business Park	Public /Institutional	Commercial Mixed Use	Residential Mixed Use	Recreation	Airport Use Area
SF DU Factor	0.25	1	4	7	0	0	0	0	0	0	0	0	0	0	0	0
MF DU Factor	0	0	0	7	24	0	0	0	0	0	0	0	18	24	0	0
POP	3.17	3.17	3.17	2.70	2.7	0	0	0	0	0	0	0	2.7	2.7	0	0
RE	0	0	0	0	0	22	21	19	0	0	2	2	13	9	0.3	0
TE	0	0	0	0	0	25	26	27	28	26	33	15	16	11	2.2	0.5

LAKE ELSINORE PREFERRED SOCIO-ECONOMIC DATA SUMMARY:

SED	Hillside Residential	Low Density Residential	Low-Medium Residential	Medium Density Residential	High Density Residential	Neighborhood Commercial	General Commercial	Tourist Commercial	Freeway Business	Limited Industrial	Industrial Business Park	Public /Institutional	Commercial Mixed Use	Residential Mixed Use	Recreation	Airport Use Area	Grand Total
Single Family DU	2,008	4,921	52,418	13,363	0	0	0	0	0	0	0	0	0	0	0	0	72,708
Multi Family DU	0	0	0	13,363	5,232	0	0	0	0	0	0	0	5,634	9,984	0	0	34,213
Population	6,365	15,600	166,159	72,180	14,126	880	27,132	32,49	0	0	0	0	15,212	26,957	0	0	316,579
Retail Employment						880	27,132	32,49	0	0	0	594	778	4,069	3744	699	41,145
Total Employment						1,000	33,592	4,617	0	22,802	9,801	5,835	5,008	4,576	5,128	0	92,359

Total DU (SF + MF)= 106,921
 Population /DU= 3.0
 Tot Employee /HH= 0.86



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**CITY OF LAKE ELSINORE
GENERAL PLAN TRAFFIC STUDY
LAKE ELSINORE, CALIFORNIA**

January 24, 2007 (Revised)
August 22, 2006

JN:02359-08
CW:MZ:KT:JW:DM:we

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**CITY OF LAKE ELSINORE
GENERAL PLAN TRAFFIC STUDY
LAKE ELSINORE, CALIFORNIA**

EXECUTIVE SUMMARY

This report summarizes the comprehensive traffic analysis conducted in support of the update of the City of Lake Elsinore General Plan and Circulation Element. The West Riverside Subarea Application Traffic Model (WRSATM) maintained by Urban Crossroads, Inc. was especially prepared / updated based on the RCIP model for use in this study. Four scenarios, including Existing conditions, Preferred General Plan conditions, General Plan Alternative 1 and General Plan Alternative 2 conditions have been evaluated with respect to daily traffic volumes, peak hour traffic volumes and peak hour intersection operations analysis. The overall goal of this analysis is to provide an updated Circulation Element for the General Plan, identify improvements necessary to eliminate or mitigate the potential impacts of the proposed General Plan land development on the transportation system. In addition, special issues identified by the City and the project team during the study have been evaluated and documented in the Special Issues chapter.

Existing conditions data collection and analysis has been completed. The existing data includes daily and key intersection peak hour traffic volumes, in addition to identifying the number of through lanes for existing roadway segments, key intersection lane configurations, traffic control device data, existing peak hour intersection analysis and key intersection turning movement volumes. The existing condition's evaluation also includes related currently adopted circulation plans, such as the City of Lake Elsinore and County of Riverside Circulation Element and cross-sections.

The generally accepted traffic forecasting procedures of trip generation, trip distribution, and trip assignment were used to generate the volumes for the future conditions analysis. The future daily volume and AM and PM peak hour volume forecasts for the future alternatives were generated from the WRSATM and have been refined based on the existing traffic count data and known interim year project conditions in accordance

with the National Cooperative Highway Research Program (NCHRP Report 255) guidelines. Traffic operations analysis for all scenarios have been conducted in accordance with the latest Riverside County Traffic Impact Study Guidelines parameters.

Exhibit ES-A shows the Recommended General Plan Circulation Element for the City of Lake Elsinore. As illustrated, there are many roadway functional classification changes as well as roadway alignment changes compared to what is depicted on the Currently Adopted General Plan Circulation Element. Table ES-1 summarizes the differences between the Currently Adopted General Plan Circulation Element roadway system versus the proposed Circulation Element roadway system. As indicated, numerous changes have been identified for the roadway system new circulation map. Special concerns/discussions for the recommended Circulation Element are documented in the Special Issues chapter of this report.

Exhibit ES-B depicts the proposed roadway cross-sections for the Preferred Circulation Plan facilities. Compared to the currently adopted roadway cross-sections, the proposed cross-sections include the following changes/update:

- An Augmented Urban Arterial with 4-lanes in each direction is proposed for State Highway SR-74. The 134' right-of-way remains the same as the currently adopted cross-section. However, bike lanes are eliminated from the cross-section to minimize vehicular/bicycle conflicts on what is essentially a high volume expressway.
- Divided Collector (2-lane with potential augmented intersections) is proposed.

The intersection improvements for the Preferred General Plan conditions are identified on Exhibit ES-C. All analysis intersections will meet the City's acceptable LOS criteria under the desired roadway improvements for the Preferred General Plan conditions. However, special concerns which have been identified by the City and the project team for the intersection improvements are documented in the Special Issues chapter of this report. Intersection analysis for three future conditions (Preferred, Alternative 1 and Alternative 2) is summarized on Table ES-2. Table ES-3 summarizes the intersection locations where augmented width and right of way may be required.

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TABLE ES-1 (PAGE 1 OF 4)
 CIRCULATION ELEMENT COMPARISON
 (PROPOSED GENERAL PLAN VS. CURRENTLY ADOPTED GENERAL PLAN)

ID#	STREET	FROM	TO	CURRENTLY ADOPTED GP	PROPOSED GP/ISSUES
1	Lakeshore Dr.	Chaney St.	Riverside Dr.	Urban Arterial	Riverside Dr. to Manning downsized to Secondary, Manning to Chaney downsized to Augmented Collector, refloating physical and environmental constraints
2	Malaga Rd.	Grape St.	Canyon Hills Rd.	Secondary	Deleted due to physical / environmental constraints
3	Roseetta Canyon Dr. (Ramsgate Rd.)	Elsinore Hills Rd.	Franklin St.	Secondary	Deleted due to MSHCP
4	Elsinore Hill Rd.	South of Riverside St.	Ramsgate Dr.	Secondary	Deleted due to MSHCP
5	Unnamed collector Rd.	Elsinore Hills Rd.	Bella Vista	Collector	Deleted due to MSHCP
6	Estrella Mountain Rd.	North of I-15 Freeway		Secondary	Deleted due to physical / environmental constraints and consistency with Riverside County
7	Central Ave.	Pasadena	Strickland	Major	Cannot be constructed due to the outflow channel
8	Riverside St.	Wasson Canyon Rd.	Greenwald	Secondary	Realigned northerly due to topography, recommended for future alignment study
9	Pasadena St.	3rd St.	Chaney St.	Secondary	Secondary with alignment issues related to existing development
10	Dexter Ave.	Central	500' north	Special Collector	Closed to accommodate construction of upgraded I-15 NB On Ramp
11	Spring St./Chestnut couplet /Main St.	Historical Downtown Area		Main St. and Spring St. as One-Way Secondary	Traditional downtown grid system
12	Lincoln St.	Machado	Riverside Dr.	Major	Downgraded to Collector due to right of way (ROW) constraints
13	Gunnerson St.	Lakeshore	Riverside Dr.	Secondary	Downgraded to Collector due to right of way (ROW) constraints
14	Strickland Av.	Riverside Dr.	Chaney St.	Major	Downgrade to Collector. At Chaney St, there will be offset "T" intersections between Strickland and Flint.
14	Flint St.	Chaney St.	Lewis St.	None	Add as a Collector to facilitate downtown access and emphasize traditional grid street system.
14	Lewis St.	Flint St.	Graham St.	None	Add as a Collector to provide continuity, facilitate downtown access and emphasize traditional grid street system.
14	Pottery St.	Chaney St.	Rancho St.	Major	Downgrade to a Collector to facilitate downtown access and emphasize traditional grid street system.
14	Heald St.	Chaney St.	Main St.	None	Add as a Collector to facilitate downtown access and emphasize traditional grid street system.
14	Graham St.	Lakeshore Dr.	Main St.	Major	Downgrade to a Collector to facilitate downtown access and emphasize traditional grid street system.
14	Langstaff St.	Pottery St.	Limited St.	None	Add as a Collector to provide continuity, facilitate downtown access and emphasize traditional grid street system.
14	Limited Ave.	Lakeshore Dr.	Main St.	Major	Add as a Collector to provide continuity, facilitate downtown access and emphasize traditional grid street system.
15	6th St. (Avenue 6)	Park	Mill	Major	Downgrade to Collector

TABLE ES-1 (PAGE 2 OF 4)
 CIRCULATION ELEMENT COMPARISON
 (PROPOSED GENERAL PLAN VS. CURRENTLY ADOPTED GENERAL PLAN)

ID#	STREET	FROM	TO	CURRENTLY ADOPTED GP	PROPOSED GP/ISSUES
16	Canyon Estates Dr.	Summerhill	Franklin St.	Secondary	Secondary, however widening may be a challenge
17	Grand Ave.	Riverside Dr.	Machado	Urban Arterial	Downgraded to Collector based on projected demand and ROW constraints
18	Grand Ave.	Riverside Dr.	Clinton Keith Rd.	Urban Arterial (6D on City GP/4D on County)	Recommend retaining Urban Arterial and work with County to change their designation, based on projected demand
19	Mission Trail	Malaga Rd.	Lemon St.	Urban Arterial (6D on City GP/4D on County)	Recommend retaining Urban Arterial and work with County to change their designation, based on projected demand
19	Mission Trail	Lemon St.	Palomar St.	Urban Arterial (6D on City GP/4D on County)	Downgrade to Major based on projected volumes and to match County designation
20	Lost Rd.	Grape St.	Cyn Hills Rd.	Major (4D on City GP/2U on County)	Downgrade to Collector based on projected volumes and to match County designation
20	Grape St.	Malaga Rd.	Lost Rd.	Major	Downgrade to Collector based on projected volumes
20	Lemon St.	Mission Trails Rd.	Grape St.	Major	Downgrade to Collector based on projected volumes
21	Railroad Canyon/I-15 Interchange			I-15/Railroad Cyn Diamond Interchange	Interchange will be reconfigured based on information provided by City staff
22	Central(SR-74)/I-15 Interchange			I-15/SR-74 Diamond Interchange	Interchange will be reconfigured based on draft Project Report traffic study recommendations.
23	Riverside Dr./I-15 Half Diamond Interchange			I-15/Riverside Dr. Half Diamond Interchange	Eliminate proposed half interchange, but retain Riverside Dr. Crossing of the I-15 Freeway
23	Riverside Dr. Extension	Nichols Rd.	Cambern St. Ext.	None	Extend Riverside Drive as a Collector, generally along 11th Av., and realign north end to align with El Toro Rd.
24	Bundy Cyn Rd.	Lakeshore Dr.	Diamond Dr.	Urban Arterial	Deleted due to Environmental Constraints
25	HOV Interchange at Malaga Rd./I-15			HOV Interchange	Deleted due to lack of consistency with regional plans
26	Diamond Dr.	Lakeshore Dr./Mission Tr.	Malaga Rd.	Urban Arterial / Major	Designated as Major for entire segment and realigned per most recent site specific traffic studies
28	Baker St.	Nichols Rd.	Riverside Dr.	Secondary	Downgrade to Collector and realign east end to align with Pasadena St.; implementation will be difficult due to Alberhill Creek and adjacent ponds
29	Nichols Rd.	Lake St.	Collier Ave.	Urban Arterial	Downgrade to a Major and update alignment per most recent project specific site plan and traffic study
30	Lake St.	I-15 Fwy.	North of I-15 Fwy. east of Lake St.	Major	Reclassify as an Urban Arterial from I-15 Fwy to Walker Canyon Rd. and eliminate north of Walker Canyon Rd.
31	Walker Canyon Rd.	Lake St.	North of SR-74	None	Classify as a Collector
31	Cambern Rd.	North of SR-74		None	Designate as a Secondary to connect with Riverside Dr. Crossing
32	Cambern Rd.	South of SR-74		Collector	Upgrade to a Secondary to connect with 3rd St.
33	Elsinore Hills Rd.	Rosetta Canyon Rd.	Camino Del Norte	Secondary	Realign to reflect current Camino Del Norte Community Facilities District (CFD) study results and recommendations

TABLE ES-1 (PAGE 3 OF 4)

CIRCULATION ELEMENT COMPARISON
(PROPOSED GENERAL PLAN VS. CURRENTLY ADOPTED GENERAL PLAN)

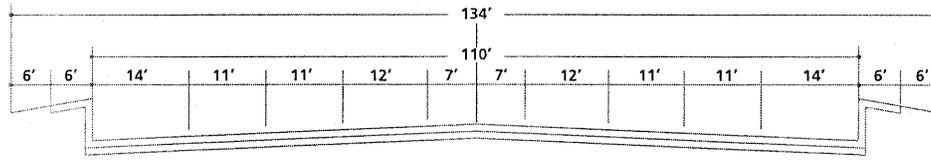
ID#	STREET	FROM	TO	CURRENTLY ADOPTED GP	PROPOSED GP/ISSUES
34	Diamond Dr.	Malaga Rd.	Corydon St.	None	Added as a Major, Realigned and added collectors based on John Liang Home TIA and Back Basin TIA.
34	Diamond Dr.	At Corydon St.	Corydon St.	None	Road has been aligned with future Bundy Canyon Rd. extensions.
34	Diamond Dr. area Collectors	Varies	Varies	None	Added Collectors between Diamond Dr., Mission Tr., and other Collectors based on John Liang Homes and Back Basin traffic studies
34	Stoneman St.	Palomar St.	Malaga Rd.	Major / Collector	Eliminated consistent with recent project specific traffic studies
35	Enterprise Wy.	Pasadena Rd.	Collier Ave.	None	Designated as a Collector to connect with Pasadena Rd.
36	W Lakeshore Dr.	Chaney St.	Graham Av.	Urban Arterial	Downgraded to a Secondary based on physical and environmental constraints
36	W Lakeshore Dr.	Graham Av.	Limited St.	Major	Downgraded to a Collector based on physical and environmental constraints
36	W Lakeshore Dr.	Limited St.	Spring St.	Major	Deleted (Added Limited Rd. as a Collector to connect Spring St. with Lakeshore Dr. per #14)
37	Camino Del Norte	Central Av.	Main St.	Major	Downgrade to a Secondary
37	Camino Del Norte	Main St.	Eisnore Hills Road	Secondary	Upgrade to a Major
38	Flint St.	Main St.	Franklin St.	None	Designate as a Secondary to connect Main St. Auto Center Dr.
38	Rancho St.	Pottery St.	Flint St.	None	Add as a Collector to provide connectivity / continuity
39	Flint St.	Main St.	West of Spring St.	None	Designate as a Secondary and provide connection to Collier St. to provide continuous Freeway frontage road
39	Collier St.	Chaney St.	Spring St.	Major	Downgrade to Secondary and provide connection to Flint St. (instead of Pottery St.) to provide continuous Freeway frontage road
41	El Toro Rd.	Nichols Rd.	Northerly sphere of influence boundary	Urban Arterial	Downgrade to a Divided Collector (two lanes with augmented intersection geometry.)
42	Riverside St. Ext.	Central Av. (SR-74)	El Toro Rd.	None	Add as a Major Arterial to provide bypass of SR-74 via Nichols Rd.
42	Ramsgate Dr.	El Toro Rd.	Central Av. (SR-74)	Major	Eliminate
43	SR-74	South of Grand Ave.	Southerly sphere of influence boundary	Major	Downgrade from Major to a Divided Collector
44	La Strada Dr.	Summerhill Dr.	Camino Del Norte	Major	Redesignate as a Secondary and realigned per the Camino Del Norte CFD studies and to reflect the proposed Village of Porto Romano site design
44	Franklin St.	Canyon Estates Dr.	La Strada Dr.	Major	Eliminate due to physical / environmental constraints
45	Stoneman St.	Grand Ave.	Palomar St.	Major	Redesignate as a Collector

TABLE ES-1 (PAGE 4 OF 4)

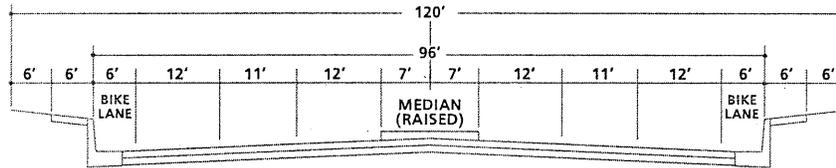
CIRCULATION ELEMENT COMPARISON
(PROPOSED GENERAL PLAN VS. CURRENTLY ADOPTED GENERAL PLAN)

ID#	STREET	FROM	TO	CURRENTLY ADOPTED GP	PROPOSED GP/ISSUES
45	Skylark Dr.	Grand Ave.	Palomar St.	Secondary	Redesignate as a Collector
46	Palomar St.	Skylark Dr.	Corydon St.	Secondary	Redesignate as a Collector
47	Olive St./I-15 Interchange			Proposed future interchange	Outside City and will require cooperative efforts with other agencies
48	Nichols Road Ext.	Indian Truck Tr.	Lake St.	Urban Arterial	Deleted due to physical / environmental constraints
49	Lincoln St. Ext.	Temescal Canyon Rd.	Nichols Rd. Ext.	None	Proposed as a Major
49	Nichols Road Ext.	Lincoln St. Ext. (N)	Lincoln St. Ext. (S)	Urban Arterial / None	Downgrade to a Secondary and realign to provide a loop for local access
49	Nichols Road Ext.	Lincoln St. Ext. (S)	Lake Street	Urban Arterial	Downgrade to a Major and update alignment per most recent project specific site plan and traffic study
50	Riverside St. Ext.	Central Av. (SR-74)	west of SR-74	None	Designate as a Major and perform alignment study to provide bypass of SR-74 via Nichols Rd.
51	Cottonwood Canyon Rd. (Canyon Hills Rd)	Holland Rd.	Bundy Canyon Rd.	Major	Downgrade to a Collector based on traffic projects and physical / environmental constraints
52	Canyon Lake Dr.	Canyon Hills Rd.	Railroad Cyn. Rd.	Secondary	Downgrade to a Collector based on traffic projects and physical / environmental constraints
53	Main St.	Limited Rd.	Lake Shore Dr.	Urban Arterial	Downgrade to a Collector and provide bypass via Spring St.
53	Spring St.	Graham St.	Lakeshore Dr.	Collector	Secondary
54	Unnamed Major	Greenwald Av.	Riverside St.	Major	Downgraded to a Collector a realigned due to physical / environmental constraints (further study required)

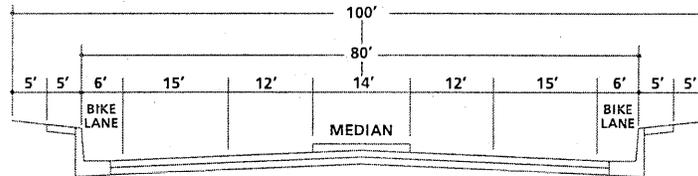
RECOMMENDED CITY OF LAKE ELSINORE ROADWAY CROSS-SECTIONS



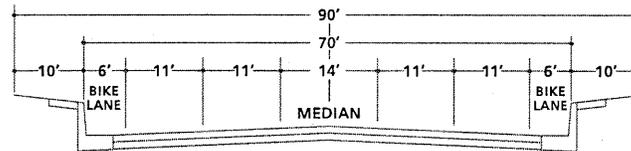
AUGMENTED URBAN ARTERIAL - STATE HIGHWAY
(8-LANE)



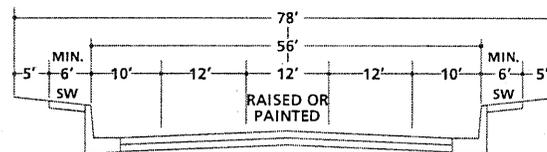
URBAN ARTERIAL HIGHWAY
(6-LANE)



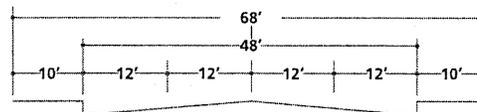
MAJOR HIGHWAY
(4-LANE)



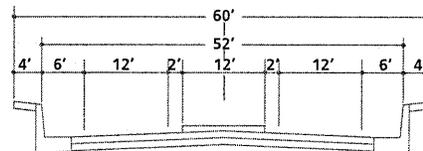
SECONDARY HIGHWAY
(4-LANE)



DIVIDED COLLECTOR
(2-LANE)



COLLECTOR HIGHWAY
(2-LANE)



NEW SPECIAL ROADWAY
(2-LANE)

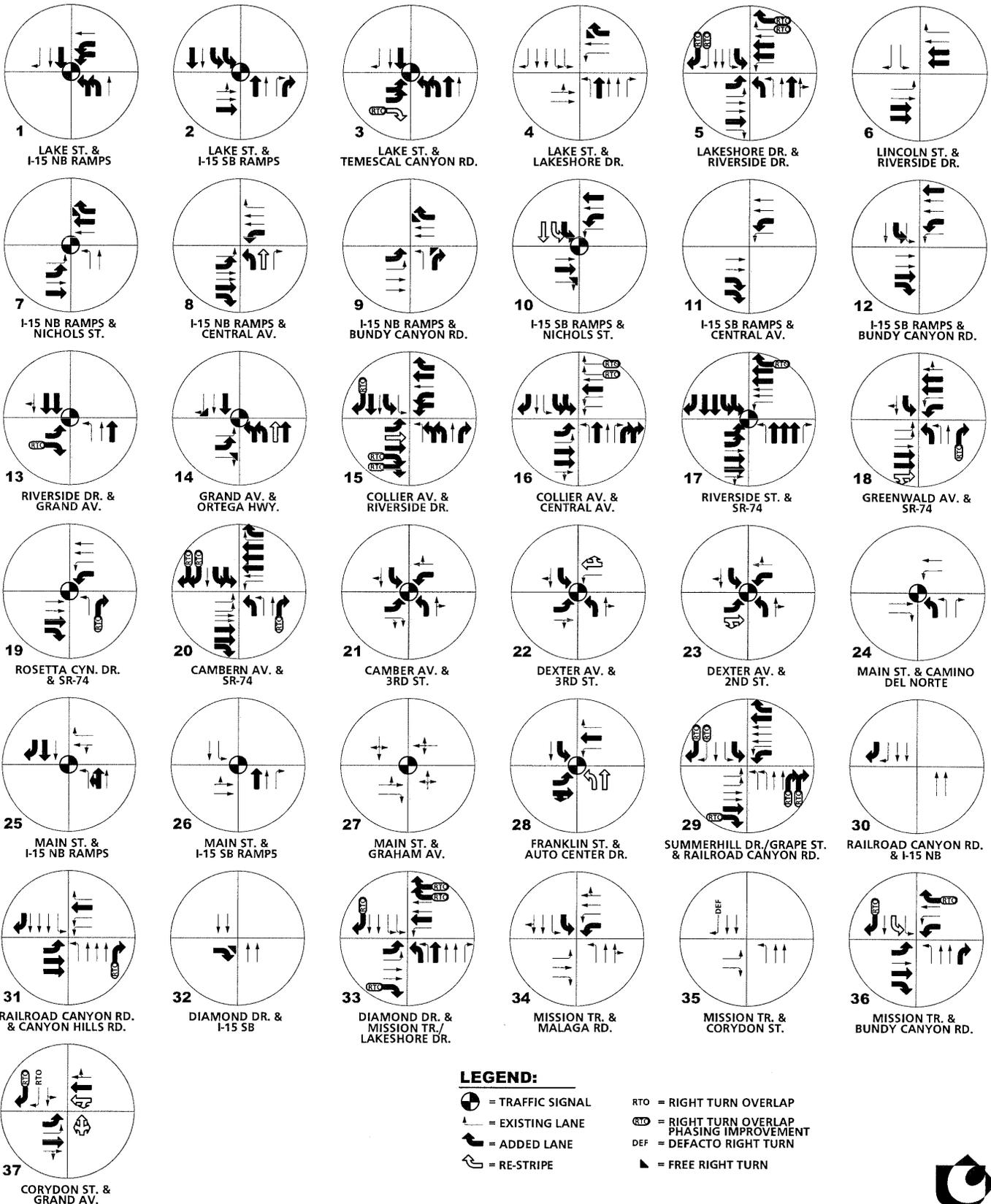
(PROPOSED FOR LAKESHORE DRIVE IN THE COUNTRY CLUB HEIGHT DISTRICT)

* BIKE LANES ARE NOT MANDATORY UNLESS SHOWN ON THE BIKEWAY CIRCULATION ELEMENT PLAN

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.



PREFERRED GENERAL PLAN RECOMMENDED INTERSECTION IMPROVEMENTS



LEGEND:

- = TRAFFIC SIGNAL
- = EXISTING LANE
- = ADDED LANE
- = RE-STRIPE
- = RTO = RIGHT TURN OVERLAP
- = RTO = RIGHT TURN OVERLAP PHASING IMPROVEMENT
- = DEF = DEFACTO RIGHT TURN
- = FREE RIGHT TURN

TABLE ES-2 (PAGE 1 OF 4)

INTERSECTION ANALYSIS SUMMARY WITH NEEDED IMPROVEMENTS

#	INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE		
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
1	Lake St. (NS) at:																		
	• I-15 NB Ramps (EW)	CSS	0.5	0.5	0	0	1	1	0	0	0	0	1	0	-4	18.8	F	C	
	-Preferred GP With Improvements	IS	2	1	0	0	2	1	0	0	0	2	1	0	43.1	31.1	D	C	
	-Alterntertive 1 GP With Improvements	IS	2	1	0	0	1	1	0	0	0	2	1	0	42.5	33.4	D	C	
	-Alterntertive 2 GP With Improvements	IS	2	1	0	0	1	1	0	0	0	2	1	0	39.9	31.6	D	C	
	2	• I-15 SB Ramps (EW)	CSS	0	1	1	0.5	0.5	0	0.5	0.5	1	0	0	0	17.3	17.2	C	C
		-Preferred GP With Improvements	IS	0	2	2	2	2	0	0.5	0.5	2	0	0	0	43.4	36.6	D	D
		-Alterntertive 1 GP With Improvements	IS	0	2	2	2	2	0	0.5	0.5	2	0	0	0	32.1	42.5	D	D
		-Alterntertive 2 GP With Improvements	IS	0	2	2	1	1	0	0.5	0.5	2	0	0	0	37.2	38.6	D	D
	3	• Temescal Canyon Rd. (EW)	CSS	0.5	0.5	0	0	1	1	0	1	0	0	0	0	92.6	94.8	F	F
		-Preferred GP With Improvements	IS	2	2	0	0	2	1	2	0	1	0	0	0	28	34.2	C	C
		-Alterntertive 1 GP With Improvements	IS	2	2	0	0	2	1	2	0	1	0	0	0	25.7	34.4	C	C
-Alterntertive 2 GP With Improvements		IS	2	2	0	0	2	1	2	0	1	0	0	0	26.7	30.9	C	C	
4	• Lakeshore Dr. (EW)	TS	1	2	1	2	2	1	0.5	1.5	0	1	1	2>	22.5	17.8	C	B	
	-Preferred GP With Improvements	TS	1	3	1	2	2	1	0.5	1.5	0	1	1	1>>	44.8	31.9	D	C	
	-Alterntertive 1 GP With Improvements	TS	1	2	1	2	2	1	0.5	1.5	0	1	1	1>>	47.3	35.6	D	D	
	-Alterntertive 2 GP With Improvements	TS	1	2	1	2	2	1	0.5	1.5	0	1	1	1>>	49.3	36.5	D	D	
5	Lakeshore Dr. (NS) at:																		
	• Riverside Dr. (EW)	TS	1	2	0	1	2	1	1	2	1	1	1	1	38.5	50.4	D	D	
	-Preferred GP With Improvements	TS	2	3	0	2	2	2>	2	3	1	1	3	2>	41.1	46.9	D	D	
	-Alterntertive 1 GP With Improvements	TS	2	2	0	2	2	2>	2	2	1	1	3	2>	44.4	50.4	D	D	
-Alterntertive 2 GP With Improvements	TS	2	2	0	2	2	2>	2	2	1	1	3	2>	41.1	48.2	D	D		
6	Lincoln St. (NS) at:																		
	• Riverside Dr. (EW)	TS	0	0	0	1	0	1	1	1	0	0	1	1	26.7	-4	C	F	
	-Preferred GP With Improvements	TS	0	0	0	1	0	1	1	3	0	0	3	1	22.3	23.4	C	C	
	-Alterntertive 1 GP With Improvements	TS	0	0	0	1	0	1	1	3	0	0	3	1	22.3	23	C	C	
-Alterntertive 2 GP With Improvements	TS	0	0	0	1	0	1	1	3	0	0	3	1	22.1	21.9	C	C		
7	I-15 NB Ramps (NS) at:																		
	• Nichols St. (EW)	CSS	1	1	0	0	0	0	1	1	0	0	1	0	31.8	17.1	D	C	
	-Preferred GP With Improvements	IS	1	1	0	0	0	0	2	2	0	0	2	1>>	37.6	37.2	D	D	
	-Alterntertive 1 GP With Improvements	IS	1	1	0	0	0	0	2	2	0	0	2	1>>	36	36.9	D	D	
-Alterntertive 2 GP With Improvements	IS	1	1	0	0	0	0	1	2	0	0	2	1>>	32.1	42.4	C	D		
8	• Central Ave. (EW)	TS	0.5	0.5	1	0	0	0	1	2	0	0	2	1	15.3	17.3	B	B	
	-Preferred GP With Improvements	TS	1	1	1	0	0	0	2	3	1	1	2	1	20.1	41.7	C	D	
	-Alterntertive 1 GP With Improvements	TS	1	1	1	0	0	0	2	3	1	1	2	1	20.1	39.4	C	D	
	-Alterntertive 2 GP With Improvements	TS	0.5	1.5	1	0	0	0	2	3	0	1	2	1	19.8	38.1	B	D	
9	• Bundy Canyon Rd. (EW)	TS	1	1	0	0	0	0	1	2	0	0	2	0	21.1	22.6	C	C	
	-Preferred GP With Improvements	TS	1	0	1>>	0	0	0	2	2	0	0	2	1>>	21.3	30.3	C	C	
	-Alterntertive 1 GP With Improvements	TS	1	0	1>>	0	0	0	2	2	0	0	2	1>>	20.2	26.8	C	C	
	-Alterntertive 2 GP With Improvements	TS	1	0	1>>	0	0	0	2	2	0	0	2	1>>	20.7	29.5	C	C	
10	I-15 SB Ramps (NS) at:																		
	• Nichols St. (EW)	CSS	0	0	0	0.5	0.5	1	0	1	1>>	1	1	0	-4	12.7	F	B	
	-Preferred GP With Improvements	IS	0	0	0	2	1	0	0	2	1>>	2	2	0	40.3	43.1	D	D	
	-Alterntertive 1 GP With Improvements	IS	0	0	0	1.5	0.5	1	0	3	1>>	1	2	0	41.9	39.9	D	D	
-Alterntertive 2 GP With Improvements	IS	0	0	0	1.5	0.5	1	0	3	1>>	1	2	0	37.9	39.8	D	D		
11	• Central Ave. (EW)	TS	0	0	0	0.5	0.5	1	0	2	0	1	2	0	12.5	19.4	B	B	
	-Preferred GP With Improvements	TS	0	0	0	0	0	0	0	2	2	2	2	0	14.3	15.2	B	B	
	-Alterntertive 1 GP With Improvements	TS	0	0	0	0	0	0	0	2	1	2	2	0	15.6	21.5	B	C	
	-Alterntertive 2 GP With Improvements	TS	0	0	0	0	0	0	0	2	1	2	2	0	15.8	17.4	B	B	
12	• Bundy Canyon Rd. (EW)	TS	0	0	0	1	1	0	0	2	0	1	2	0	21.3	19.7	C	B	
	-Preferred GP With Improvements	TS	0	0	0	2	1	0	0	3	1	2	3	0	40.5	48.8	D	D	
	-Alterntertive 1 GP With Improvements	TS	0	0	0	2	1	0	0	3	1	2	3	0	36.4	46.3	D	D	
	-Alterntertive 2 GP With Improvements	TS	0	0	0	2	1	0	0	3	1	2	3	0	38.7	51.1	D	D	

TABLE ES-2 (PAGE 2 OF 4)

INTERSECTION ANALYSIS SUMMARY WITH NEEDED IMPROVEMENTS

#	INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE		
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
13	Riverside Dr. (NS) at:																		
	• Grand Ave. (EW)	CSS	1	1	0	0	1	1	1	0	1	0	0	0	95.1	--4	F	F	
	-Preferred GP With Improvements	<u>TS</u>	1	<u>2</u>	0	0	<u>3</u>	0	<u>1</u>	0	<u>1</u>	0	0	0	18.9	33.5	B	C	
	-Alterntertive 1 GP With Improvements	<u>TS</u>	1	<u>2</u>	0	0	<u>3</u>	0	<u>1</u>	0	<u>1</u>	0	0	0	16.1	25.2	B	C	
-Alterntertive 2 GP With Improvements	<u>TS</u>	1	<u>2</u>	0	0	<u>3</u>	0	<u>1</u>	0	<u>1</u>	0	0	0	15.9	25.8	B	C		
14	Grand Ave. (NS) at:																		
	• Ortega Hwy. (EW)	AWS	0.5	0.5	0	0	1	1>>	1	0	1>>	0	0	0	--4	--4	F	F	
	-Preferred GP With Improvements	<u>TS</u>	<u>2</u>	<u>2</u>	0	0	<u>2</u>	1>>	<u>2</u>	0	1>>	0	0	0	39	29.5	D	C	
	-Alterntertive 1 GP With Improvements	<u>TS</u>	<u>2</u>	<u>2</u>	0	0	<u>2</u>	1>>	<u>2</u>	0	<u>1</u>	0	0	0	32.7	32.5	C	C	
-Alterntertive 2 GP With Improvements	<u>TS</u>	<u>2</u>	<u>2</u>	0	0	<u>2</u>	1>>	<u>2</u>	0	<u>1</u>	0	0	0	32.7	41	C	D		
15	Collier Ave. (NS) at:																		
	• Riverside Dr. (EW)	TS	1	1	0	1	1	1	0.5	0.5	1	0	1	0	--4	--4	F	F	
	-Preferred GP With Improvements	TS	<u>3</u>	1	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>1</u>	43.6	51.4	D	D	
	-Alterntertive 1 GP With Improvements	TS	<u>3</u>	1	<u>1</u>	1	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>1</u>	48.5	50.9	D	D	
-Alterntertive 2 GP With Improvements	TS	<u>3</u>	<u>2</u>	0	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>		46.4	49.9	D	D		
16	Central Ave. (EW)	TS	1	1	1	1	1	0	1	1	0	2	1	2>	35.7	34.9	D	C	
	-Preferred GP With Improvements	TS	1	<u>2</u>	<u>3</u>	<u>3</u>	1	<u>1</u>	<u>2</u>	<u>3</u>	0	2	<u>2</u>	2>	34.9	51.4	C	D	
	-Alterntertive 1 GP With Improvements	TS	1	<u>2</u>	<u>3</u>	<u>3</u>	1	<u>1</u>	<u>2</u>	<u>3</u>	0	2	<u>2</u>	2>	34.6	53.4	C	D	
	-Alterntertive 2 GP With Improvements	TS	1	<u>2</u>	<u>3</u>	<u>3</u>	1	<u>1</u>	<u>2</u>	<u>3</u>	0	2	<u>2</u>	2>	34.4	48.8	C	D	
17	Riverside St. (NS) at:																		
	• SR-74 (EW)	CSS	1	0	1	0	0	0	0	2	0	1	2	0	21.9	37.5	C	E	
	-Preferred GP With Improvements	<u>TS</u>	1	<u>3</u>	1	<u>2</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>4</u>	0	1	<u>4</u>	<u>1</u>	53.2	49.7	D	D	
	-Alterntertive 1 GP With Improvements	<u>TS</u>	1	<u>3</u>	<u>0</u>	<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>	53.2	45.7	D	D	
-Alterntertive 2 GP With Improvements	<u>TS</u>	1	<u>3</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>4</u>	0	1	<u>3</u>	<u>1</u>	51.2	45.5	D	D		
18	Greenwald Ave. (NS) at:																		
	• SR-74 (EW)	TS	1	1	0	0	1	0	1	1	1	1	0	27.2	16.2	C	B		
	-Preferred GP With Improvements	TS	<u>2</u>	1	<u>1</u>	<u>1</u>	1	0	1	<u>4</u>	<u>0</u>	<u>2</u>	<u>3</u>	0	42	35.9	D	D	
	-Alterntertive 1 GP With Improvements	TS	<u>2</u>	1	1	<u>1</u>	1	0	1	<u>4</u>	<u>0</u>	<u>2</u>	<u>3</u>	0	35.5	44.6	D	D	
-Alterntertive 2 GP With Improvements	TS	<u>2</u>	1	1	<u>1</u>	1	0	1	<u>4</u>	<u>0</u>	<u>2</u>	<u>3</u>	0	31	43.2	C	D		
19	Rosetta Canyon Dr. (EW) at:																		
	• SR-74 (EW)	CSS	1	0	1	0	0	0	0	2	0	1	2	0	24	38.4	C	E	
	-Preferred GP With Improvements	<u>TS</u>	1	0	<u>1</u>	0	0	0	0	<u>3</u>	<u>1</u>	<u>2</u>	2	0	26.1	33.4	C	C	
	-Alterntertive 1 GP With Improvements	<u>TS</u>	1	0	<u>1</u>	0	0	0	0	<u>3</u>	<u>1</u>	<u>2</u>	2	0	29	33.8	C	C	
-Alterntertive 2 GP With Improvements	<u>TS</u>	1	0	1	0	0	0	0	<u>3</u>	<u>1</u>	<u>2</u>	2	0	27.2	37.1	C	D		
20	Cambern Ave. (NS) at:																		
	• SR-74 (EW)	TS	1	1	0	0.5	0.5	1	2	2	0	1	1	1	34.5	15.4	C	B	
	-Preferred GP With Improvements	TS	<u>2</u>	1	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	2	<u>4</u>	<u>1</u>	1	<u>4</u>	<u>2</u>	40.5	49.9	D	D	
	-Alterntertive 1 GP With Improvements	TS	<u>2</u>	1	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	2	<u>4</u>	<u>1</u>	1	<u>4</u>	<u>2</u>	41	48.6	D	D	
-Alterntertive 2 GP With Improvements	TS	<u>2</u>	1	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	2	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	49.8	54.2	D	D		
21	3rd St. (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	9.2	9.2	A	A	
	-Preferred GP With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	37.6	37.8	D	D	
	-Alterntertive 1 GP With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	37.7	38.5	D	D	
	-Alterntertive 2 GP With Improvements	<u>AWS</u>	0	1	0	0	1	0	0	1	0	0	1	0	9.7	16.8	A	C	
22	Dexter Ave. (NS) at:																		
	• 3rd St. (EW)	CSS	0	1	0	0	1	0	0	1	0	1	0	1	9.4	9.7	A	A	
	-Preferred GP With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	1	<u>1</u>	<u>0</u>	36.4	42.4	D	D	
	-Alterntertive 1 GP With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	<u>0</u>	<u>1</u>	1	0	1	36.6	36.8	D	D	
-Alterntertive 2 GP With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	<u>0</u>	<u>1</u>	1	0	1	32	36.3	C	D		
23	2nd St. (EW)	CSS	0	1	0	0	1	0	0.5	0.5	0	0	1	0	11.9	9	B	A	
	-Preferred GP With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	<u>1</u>	0	<u>1</u>	1	0	34.9	45	C	D	
	-Alterntertive 1 GP With Improvements	CSS	0	1	0	0	1	0	0.5	0.5	0	0	1	0	11.6	21.9	B	C	
	-Alterntertive 2 GP With Improvements	CSS	0	1	0	0	1	0	0.5	0.5	0	0	1	0	11.7	25.2	B	D	

TABLE ES-2 (PAGE 3 OF 4)

INTERSECTION ANALYSIS SUMMARY WITH NEEDED IMPROVEMENTS

#	INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE	
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM
			L	T	R	L	T	R	L	T	R	L	T	R				
24	Main St. (NS) at:																	
	- Camino De Norte (EW)	CSS	1	0	1	0	0	0	0	1	1	1	1	0	9	9.5	A	A
	-Preferred GP With Improvements	TS	2	0	1	0	0	0	0	1	1	1	1	0	40.4	43.8	D	D
	-Alternative 1 GP With Improvements	TS	1	0	1	0	0	0	0	1	1	1	1	0	38.2	40.2	D	D
25	-Alternative 2 GP With Improvements	TS	1	0	1	0	0	0	0	1	1	1	1	0	33.1	32.2	C	C
	I-15 NB Ramps (EW)	CSS	1	1	0	0	1	0	0	0	0	0.5	0.5	1	85.2	29.7	F	D
	-Preferred GP With Improvements	TS	1.5	1.5	0	0	2	1	0	0	0	0.5	0.5	1	40.3	37.8	D	D
	-Alternative 1 GP With Improvements	TS	1.5	1.5	0	0	2	1	0	0	0	0.5	0.5	1	39.6	36.3	D	D
26	-Alternative 2 GP With Improvements	TS	1.5	1.5	0	0	2	0	0	0	0	1.5	0.5	1	38.4	35.4	D	D
	I-15 SB Ramps (EW)	CSS	0	1	1	1	1	0	0.5	1.5	0	0	0	0	25.4	17.7	D	C
	-Preferred GP With Improvements	TS	0	2	1	1	1	0	0.5	1.5	0	0	0	0	39.5	34.7	D	C
	-Alternative 1 GP With Improvements	TS	0	2	1	1	1	0	0.5	1.5	0	0	0	0	36.6	32.7	D	C
27	-Alternative 2 GP With Improvements	TS	0	1	1	1	1	0	0.5	1.5	0	0	0	0	44.1	31.4	D	C
	Graham Ave. (EW)	CSS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	10.1	16.6	B	C
	-Preferred GP With Improvements	TS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	13.6	16.7	B	B
	-Alternative 1 GP With Improvements	TS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	13.8	16.1	B	B
28	-Alternative 2 GP With Improvements	TS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	13.2	16.2	B	B
	Franklin St. (NS) at:																	
	- Auto Center Dr. (EW)	CSS	0	1	1	0.5	0.5	0	0	0	0	1	0	1	10.8	13.8	B	B
	-Preferred GP With Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	1	33.5	49.4	C	D
29	-Alternative 1 GP With Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	0	34.9	45.7	C	D
	-Alternative 2 GP With Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	0	35	53.7	D	D
	Summerhill Dr./Grape St. (NS)																	
	- Railroad Canyon Rd. (EW)	TS	2	2	1	1	1	1>	2	2	0	1	3	0	52.4	70.3	D	E
30	-Preferred GP With Improvements	TS	2	2	2>	2	1	2>	2	3	1>	2	4	1	47.9	51.7	D	D
	-Alternative 1 GP With Improvements	TS	2	2	2>	2	1	2>	2	3	1>	2	4	1	46	46.7	D	D
	-Alternative 2 GP With Improvements	TS	2	2	2>	2	1	2>	2	3	1	2	4	1	50.4	47.6	D	D
	Railroad Canyon Rd. (NS) at:																	
31	I-15 NB(EW)	TS	1	2	0	0	2	1	0	0	0	0.5	0.5	1	26.5	38.9	C	D
	-Preferred GP With Improvements	TS	0	2	0	0	2	2	0	0	0	0	0	0	0.5	1.3	A	A
	-Alternative 1 GP With Improvements	TS	0	2	0	0	2	1	0	0	0	0	0	0	3.3	1.5	A	A
	-Alternative 2 GP With Improvements	TS	0	2	0	0	2	1	0	0	0	0	0	0	1.8	1.9	A	A
32	Canyon Hills Rd. (EW)	TS	1	3	1	1	3	0	0	0	0	2	0	1	25.3	11.8	C	B
	-Preferred GP With Improvements	TS	1	3	1>	1	3	1	1	2	0	2	1	1	43.1	48.5	D	D
	-Alternative 1 GP With Improvements	TS	1	3	1>	1	3	1	1	2	0	2	1	0	43.2	45.1	D	D
	-Alternative 2 GP With Improvements	TS	1	3	1>	1	3	1	1	2	1	2	1	0	41	47.5	D	D
33	Diamond Dr(NS) at:																	
	I-15 SB(EW)	TS	0	2	1	1	2	0	1	1	0	0	0	0	36.4	47.1	D	D
	-Preferred GP With Improvements	TS	0	2	0	0	2	0	0	0	1>>	0	0	0	0.5	0.6	A	A
	-Alternative 1 GP With Improvements	TS	0	2	0	0	2	0	0	0	1>>	0	0	0	0.6	0.6	A	A
33	-Alternative 2 GP With Improvements	TS	0	2	0	0	2	0	0	0	1>>	0	0	0	0.5	0.5	A	A
	Mission Trail-Lakeshore Dr. (EW)	TS	1	2	1	2	2	0	1	2	0	1	2	1	36.8	37.7	D	D
	-Preferred GP With Improvements	TS	2	3	1	2	2	1>	2	2	1>	1	3	2>	40.8	54.6	D	D
	-Alternative 1 GP With Improvements	TS	2	3	0	2	2	1>	2	2	1	1	2	1>	51.6	47.9	D	D
33	-Alternative 2 GP With Improvements	TS	1	2	1	2	2	1>	2	2	1	1	2	2>	45.8	52.1	D	D

TABLE ES-2 (PAGE 4 OF 4)

INTERSECTION ANALYSIS SUMMARY WITH NEEDED IMPROVEMENTS

#	INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE	
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM
			L	T	R	L	T	R	L	T	R	L	T	R				
34	Mission Trail (NS) at:																	
	• Malaga Rd. (EW)	TS	1	2	0	1	2	0	1	1	1	1	2	0	17.3	24.4	B	C
	-Preferred GP With Improvements	TS	1	2	0	<u>2</u>	2	0	1	1	1	<u>2</u>	2	0	30.9	44.6	C	D
	-Alternative 1 GP With Improvements	TS	1	2	0	<u>2</u>	2	0	1	1	1	1	2	0	32	47.2	C	D
35	-Alternative 2 GP With Improvements	TS	1	2	0	<u>2</u>	2	0	1	1	1	1	2	0	31.7	53.2	C	D
	• Corydon St. (EW)	TS	1	2	0	0	2	1>	1	0	1	0	0	0	16.4	15.2	B	B
	-Preferred GP With Improvements	TS	1	2	0	0	2	1>	1	0	1	0	0	0	28.2	27.1	C	C
	-Alternative 1 GP With Improvements	TS	1	2	0	0	2	1>	1	0	1	0	0	0	25.9	24	C	C
36	-Alternative 2 GP With Improvements	TS	1	2	0	0	2	1>	1	0	1	0	0	0	25.2	27.4	C	C
	• Bundy Canyon Rd. (EW)	TS	1	2	0	1	2	0	0	1	0	1	1	0	17.9	22.1	B	C
	-Preferred GP With Improvements	TS	1	2	<u>1</u>	<u>2</u>	<u>1</u>	<u>1></u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	1	<u>1></u>	38.2	47.8	D	D
	-Alternative 1 GP With Improvements	TS	1	2	<u>1</u>	<u>2</u>	2	0	<u>0.5</u>	<u>1.5</u>	<u>1</u>	1	1	<u>1></u>	52.9	52	D	D
37	-Alternative 2 GP With Improvements	TS	1	2	<u>1</u>	<u>2</u>	2	0	<u>1</u>	<u>2</u>	<u>0</u>	<u>2</u>	1	<u>1></u>	38.8	45.6	D	D
	Corydon St.(NS) at:																	
	• Grand Ave. (EW)	TS	0	0	1	0.5	0.5	1>	1	1	0	1	1	0	15.3	20.9	B	C
	-Preferred GP With Improvements	TS	0	<u>1</u>	<u>0</u>	0.5	0.5	<u>2></u>	<u>2</u>	<u>2</u>	0	<u>0</u>	<u>3</u>	0	19.3	34.6	B	C
37	-Alternative 1 GP With Improvements	TS	0	<u>1</u>	<u>0</u>	0.5	0.5	<u>2></u>	<u>2</u>	<u>2</u>	0	<u>0</u>	<u>2</u>	0	21.4	41.8	C	D
	-Alternative 2 GP With Improvements	TS	0	<u>1</u>	<u>0</u>	0.5	0.5	<u>2></u>	<u>2</u>	<u>2</u>	0	<u>0</u>	<u>3</u>	0	19.1	34.7	B	C

¹ 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;

² 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.

³ TS = Traffic Signal
 AWS = All Way Stop
 CSS = Cross St. Stop

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

TABLE ES-3

AUGMENTED INTERSECTION RIGHT OF WAY SUMMARY

INTERSECTION		AUGMENTED RIGHT OF WAY REQUIRED ¹		
NORTH - SOUTH	EAST - WEST	PREFERRED	ALTERNATIVE 1	ALTERNATIVE 2
Lake Street	Lakeshore Drive	NS	--	--
Lakeshore Drive	Riverside Drive	NS / EW	EW	EW
Collier Avenue	Central Avenue	NS / EW	NS / EW	NS / EW
Riverside Street	SR-74	NS / EW	NS / EW	NS / EW
Cambern Avenue	SR-74	NS / EW	NS / EW	NS / EW
Summerhill Drive / Grape Street	Railroad Canyon Road	NS / EW	NS / EW	NS / EW

¹ NS = North/South
EW = East/West

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1.0 INTRODUCTION AND ANALYSIS METHODOLOGY

1.1 Overview

This comprehensive General Plan level traffic study has been prepared in support of the update of the City of Lake Elsinore General Plan and Circulation Element. The Circulation Element emphasizes the upgrade and maintenance of a transportation system for the City that responds to the demands of the current and planned land uses and socio-economic data. The existing conditions and three long-range future conditions (the Preferred General Plan and the Alternative 1 and Alternative 2 conditions) have been evaluated with respect to daily traffic volumes as well as peak hour intersection operations. The study also identifies the improvements necessary to maintain the desired service levels throughout the Preferred General Plan Alternative conditions. Special issues have been addressed during the analysis process. Currently adopted General Plan conditions have not been evaluated due to the lack of available quantifiable land use data for the numerous large Specific Plan areas in the City of Lake Elsinore.

1.2 Study Area

The study area evaluated in the analysis section of this report is presented on Exhibit 1-A. A total of 37 intersections have been analyzed within the study area. The 37 intersections are:

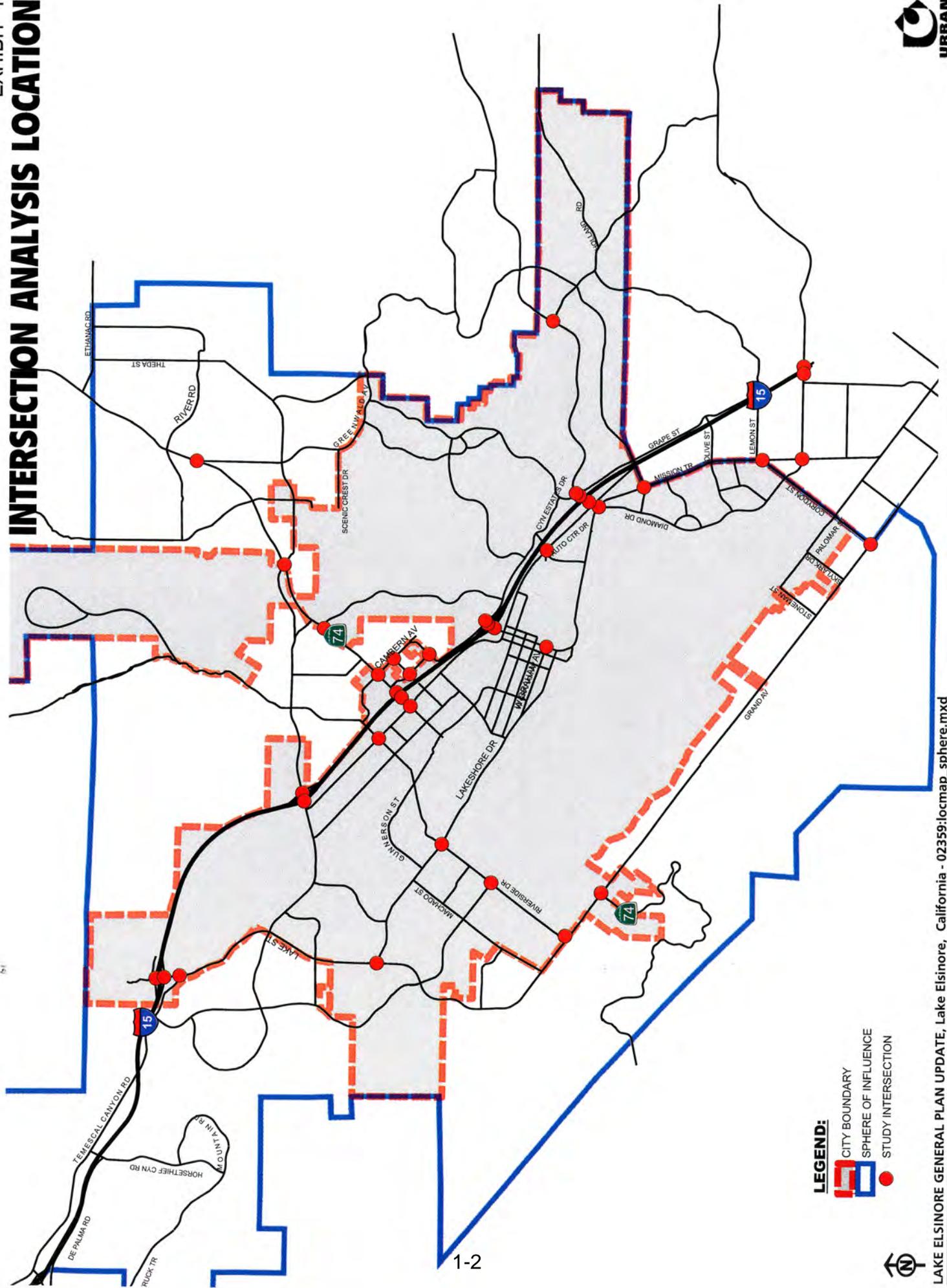
Lake Street (NS) at:

- I-15 Freeway Northbound Ramps (EW)
- I-15 Freeway Southbound Ramps (EW)
- Temescal Canyon Road (EW)
- Lakeshore Drive (EW)

Lakeshore Drive (NS) at:

- Riverside Drive (EW)

EXHIBIT 1-A INTERSECTION ANALYSIS LOCATIONS



Lincoln Street (NS) at:

- Riverside Drive (EW)

I-15 Freeway Northbound Ramps (NS) at:

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

I-15 Freeway Southbound Ramps (NS) at:

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

Grand Avenue (NS) at:

- Riverside Drive (EW)
- Ortega Highway (EW)

Collier Avenue (NS) at:

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

Riverside Street (NS) at:

- SR-74 (EW)

Greenwald Avenue (NS) at:

- SR-74 (EW)

Rosetta Canyon Drive (NS) 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 Freeway Northbound Ramps (EW)
- I-15 Freeway 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 Freeway Northbound Ramps (EW)
- I-15 Freeway Southbound Ramps (EW)

Diamond Drive (NS) at:

- I-15 Freeway Southbound Ramps (EW)
- Mission Trail (EW)

Mission Trail (NS) at:

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

Corydon Street (NS) at:

- Grand Avenue (EW)

The City of Lake Elsinore has a circulation system consisting of freeways, arterial roadways and local streets. Interstate (I)-15 provides regional connection to the

City of Lake Elsinore. State Route 74 provides access to the mountain areas north of the City and south to Orange County. Established transit (bus) service also connects the City of Lake Elsinore to the nearby communities.

The City of Lake Elsinore roadway network is established with designated roadway types and design standards. The roadway type is linked to anticipated traffic levels. Because local circulation is linked with the regional system, the Circulation Element also focuses on participation in regional programs to alleviate traffic congestion and construct capacity improvements. Plans prepared by Caltrans, Riverside County and other regional agencies guide the development/improvement of the regional transportation system. Strategies to handle anticipated traffic levels from future regional development are currently being developed as discussed hereafter.

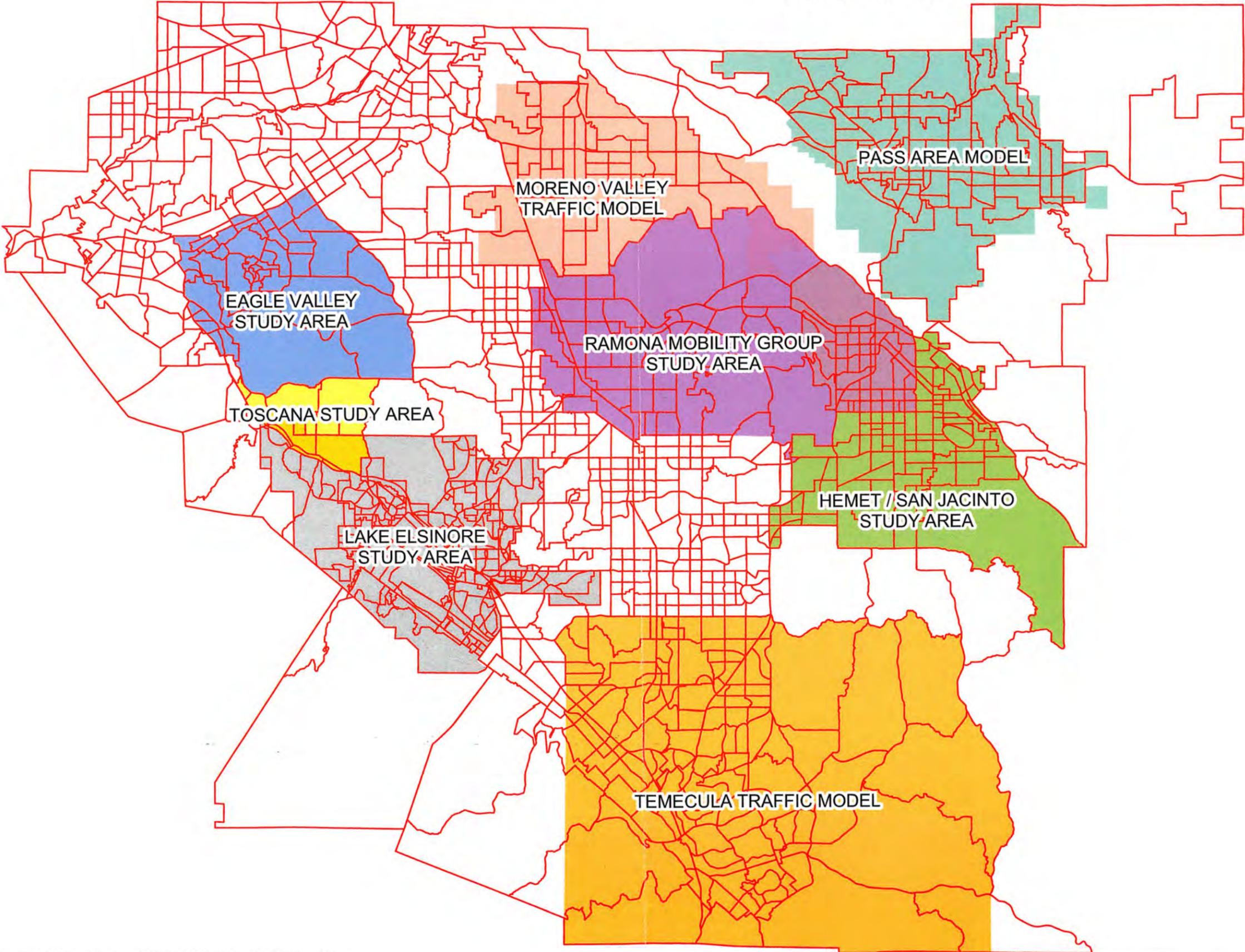
1.3 Travel Forecast Procedures

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 Ramona Mobility Group study area, and the Toscana Study area within Riverside County. Exhibit 1-B illustrates the on-going modeling activities using WRSATM. As shown on Exhibit 1-B, WRSATM has been applied to the following study areas:

- Eagle Valley Study Area
- Toscana Study Area
- Lake Elsinore Study Area
- Ramona Mobility Group Study Area
- Hemet/San Jacinto Study Area

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MODELING ACTIVITIES IN WESTERN RIVERSIDE COUNTY



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The other subareas within Western Riverside County where separate traffic model applications have been developed include the following:

- Moreno Valley (Moreno Valley Traffic Model)
- Beaumont/Banning (PASS Area Model)
- Temecula (Temecula Traffic Model)

The procedures of the WRSATM have been intensively updated in the course of this work effort in order to reflect the most current model data for City of Lake Elsinore.

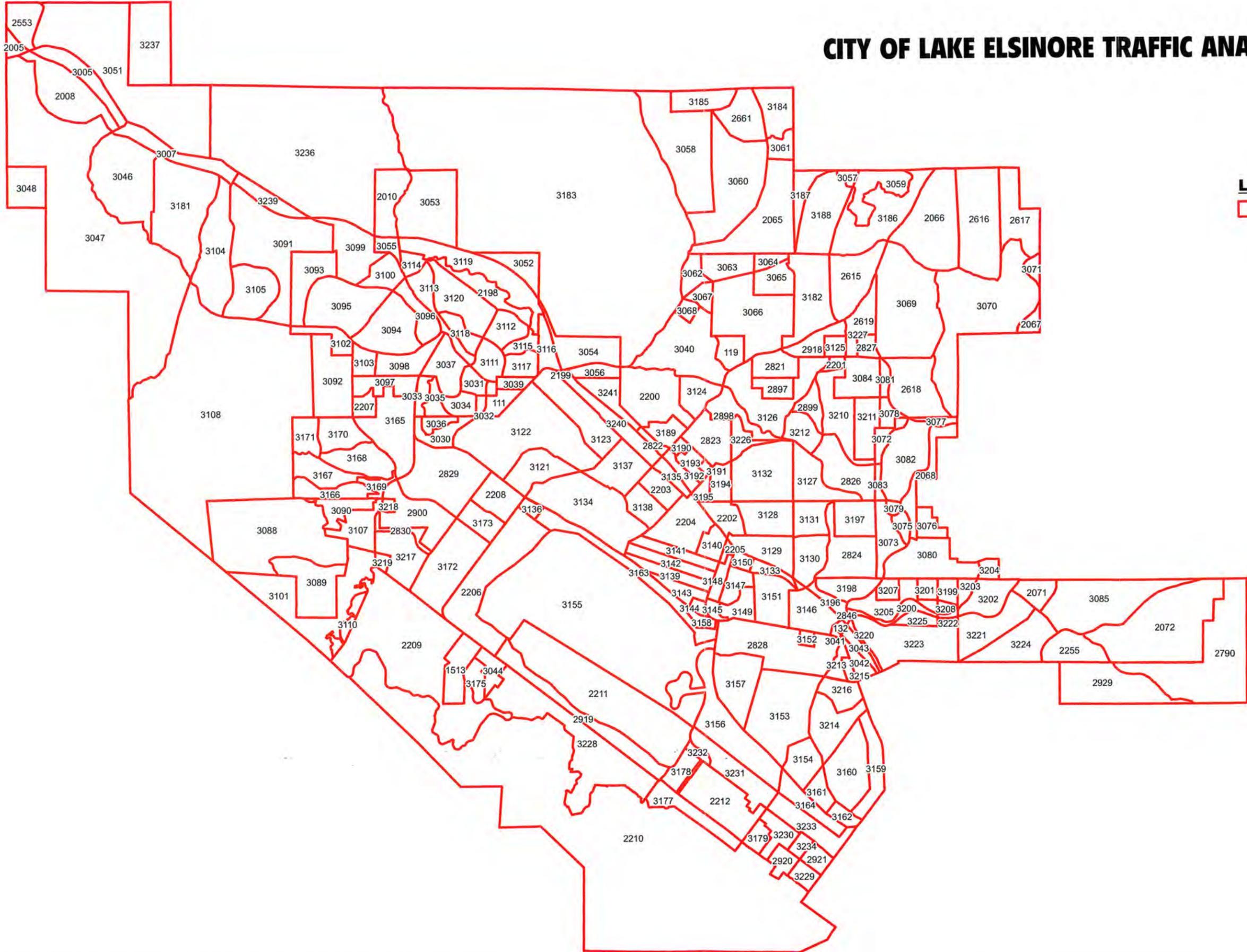
The Lake Elsinore Traffic Model (LETM), originally developed for the City's fee program, has been updated by Urban Crossroads, Inc. to assist many traffic studies within the City of Lake Elsinore. The LETM model is not consistent with the RCIP model, which is critical to obtaining regional funding for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

The Traffic Analysis Zone (TAZ) structure for the City of Lake Elsinore 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 Exhibit 1-C. A total of 279 TAZs are included in the City of Lake Elsinore planning area. The refined Lake Elsinore TAZ structure is a subset of the RCIP model TAZ and structure can be aggregated to the RCIP TAZ boundaries.

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

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CITY OF LAKE ELSINORE TRAFFIC ANALYSIS ZONES (TAZ)



LEGEND:
[Red Outline] TAZ BOUNDARY



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The WRSATM is a Tranplan/Viper and TP+ 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 the data obtained from this tool and included in the WRSATM to account for regional mode choice characteristics.

1.4 Analysis Methodologies

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The technical methodologies described here are consistent with the Current Riverside County TIA Guidelines. The following analysis years are considered in this report:

- Existing Conditions - 2005
- Preferred General Plan Conditions
- Alternative 1 General Plan Conditions
- Alternative 2 General Plan Conditions

The methodologies used to develop the refined future traffic volumes and the explicit traffic operations analysis methodologies are summarized herein.

1.4.1 Traffic Forecast Refinement Methodology

As described previously, traffic conditions are evaluated in this report for existing conditions and three future horizon years. Urban Crossroads, Inc. conducted the actual traffic counts to quantify existing traffic conditions. The analysis considers the weekday AM and PM peak hours of traffic. The Horizon Year (2030) traffic volumes have been derived from the WRSATM model, which has been modified for the City of Lake Elsinore to support the General Plan update process.

The future peak hour approach and departure volumes obtained from the traffic model are then 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 serve 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.

1.4.2 Traffic Operations Analysis

The current technical guide to the evaluation of traffic operations is the 2000 Highway Capacity Manual (HCM) (Transportation Research Board Special Report 209). The HCM defines level of service 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 (Level of Service) conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

The definitions of level of service for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are:

- 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.
- Uninterrupted flow is generally found only on limited access (freeway) facilities in urban areas. The level of service is based on the HCM, Table 3-1.

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

The level of service is typically dependent on the quality of traffic flow at the intersections along a roadway. The HCM methodology expresses the level of service 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 levels of service 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 level of service. 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 level of service 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 level of service 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 level of service has been calculated. The level of service criteria for this type of intersection analysis is based on total delay per vehicle for the worst minor street movement(s).

The levels of service are defined in terms of average delay for the intersection analysis methodology as follows:

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 level of service 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.

1.5 Definition of Deficiency and Significant Impact

The following definitions of deficiencies and significant impacts have been developed in accordance with the City of Lake Elsinore and County of Riverside requirements.

1.5.1 Definition of Deficiency

The definition of an intersection deficiency has been obtained from the City of Lake Elsinore, County of Riverside, and Caltrans. As indicated on Exhibit 1-A (presently previously), the majority of the study intersections are located within the City of Lake Elsinore with only four intersections in the County of Riverside. There are about 12 intersections located on SR-74, the state highway, which have been evaluated based on Caltrans' level of service criteria (mid-point of LOS "D" or 45 seconds of delay for signalized intersections).

The City of Lake Elsinore, in general, requires that peak hour intersection operations be of LOS “D” or better to be considered acceptable. Therefore, any City of Lake Elsinore intersection operating at LOS “E” or “F” will be considered deficient.

During the course of updating the General Plan, preserving the downtown history area has been one of several important topics. The City, therefore, proposes to use a different policy for the downtown area. For the historical downtown area, LOS “E” is proposed as acceptable. Any intersection operating at LOS “F” will be considered deficient. In addition, the Ball park district should pursue LOS “E” as an acceptable level of service in the future.

The County standard reflects a similar “variable” level of service standard. The County has established, as a countywide target, a Level of Service “C” on all County maintained roads and conventional State Highways. As an exception, Level of Service “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.

LOS “D” with delay less than 45 seconds per vehicle (mid-point of LOS “D”) is acceptable to Caltrans at signalized intersections.

1.5.2 Definition of Significant Impact

The identification of significant impacts is a requirement of CEQA. The City of Lake Elsinore General Plan and Circulation Element have been adopted in accordance with CEQA requirements, and any roadway improvements

within the City of Lake Elsinore which are consistent with these documents are not considered a significant impact, so long as the project contributes its "fair share" funding for improvements.

A traffic impact is considered significant and unmitigable if the project both: i) contributes measurable traffic to and ii) substantially and adversely changes the level of service at any off-site location projected to experience deficient operations under foreseeable cumulative conditions, where feasible improvements consistent with the City of Lake Elsinore General Plan cannot be constructed. This traffic study recommends updates to the Circulation Element Roadway Plan that will result in acceptable traffic operations throughout the City of Lake Elsinore.

2.0 LAND USE AND SOCIO-ECONOMIC DATA

The City of Lake Elsinore future land use data was obtained from Mooney, Jones, & Stokes. Exhibit 2-A through Exhibit 2-C illustrate the land use data overlay on the WRSATM TAZ structure for the Preferred General Plan, Alternative 1 General Plan, and Alternative 2 General Plan conditions, respectively. The City of Lake Elsinore existing (2001) land use data was obtained from SCAG. Exhibit 2-D illustrates the existing land use map.

Table 2-1 summarizes the land use growth from the existing land uses for the three proposed alternatives. Exhibit 2-E illustrates the Currently Adopted General Plan land use map. As illustrated, there are a lot of undefined areas on the Currently Adopted land use map due to the undetermined specific plan designation.

Since the WRSATM trip generation is a socio-economic data based model, the future land use data has been converted into socio-economic data (SED). Table 2-2 shows the non-residential land use conversion factors including net to gross ratio and floor to area ratio (FAR), while Table 2-3 summarizes both residential and non-residential conversion factors. The conversion factors have been revised several times through discussions with ERA, the economic consultant company, as well as with Mooney Jones & Stokes. The conversion factors have also been reviewed and approved by the City.

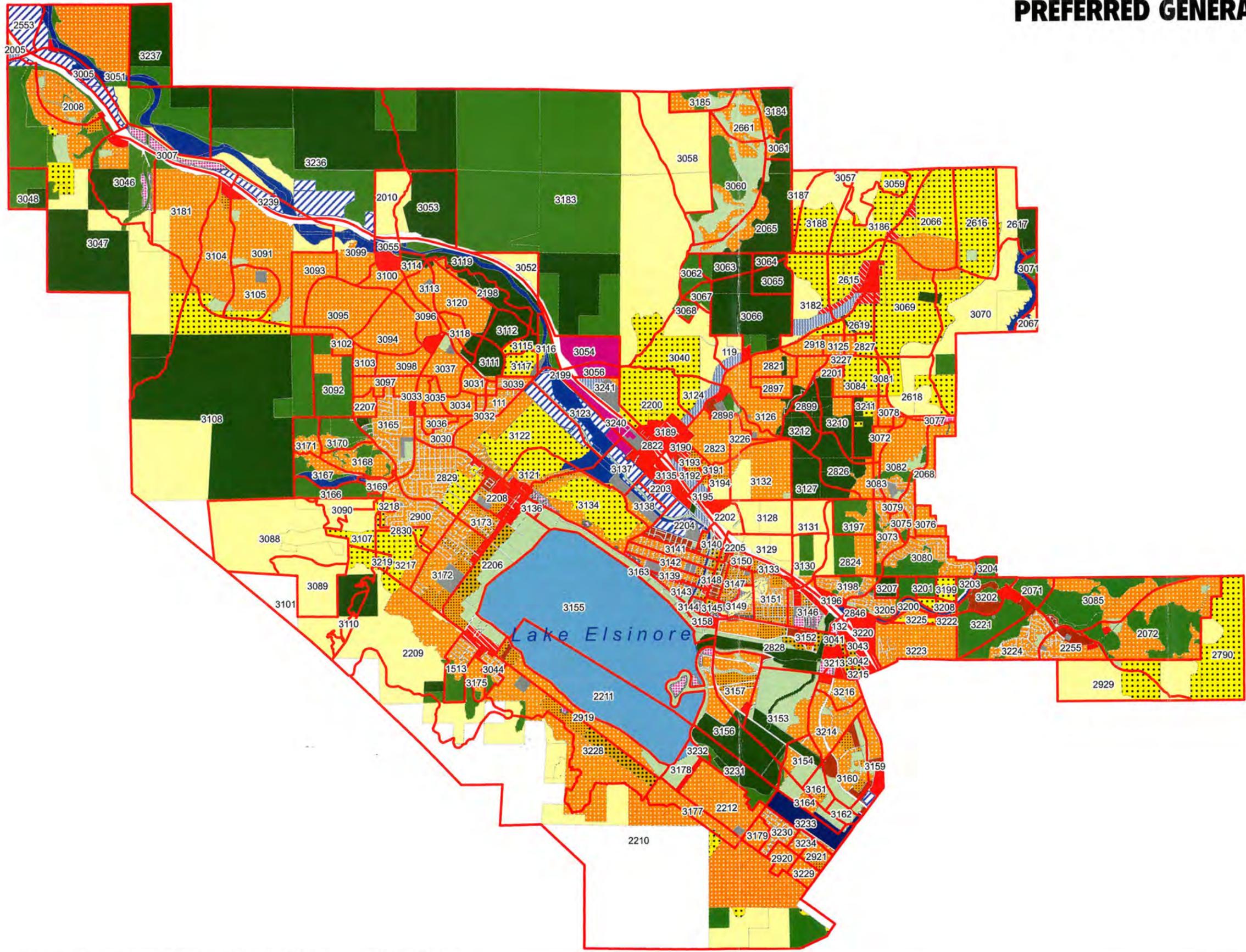
The following sub-sections describe the SED and trip ends for each future condition.

2.1 Preferred General Plan Socio-Economic Data and Trip Ends

The City of Lake Elsinore Preferred General Plan socio-economic data summary is shown on Chart 2-A. Chart 2-B illustrates the total unbalanced trip ends for the City of Lake Elsinore planning area. The detailed socio-economic data by TAZs are included in Appendix "A".

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PREFERRED GENERAL PLAN LAND USE MAP

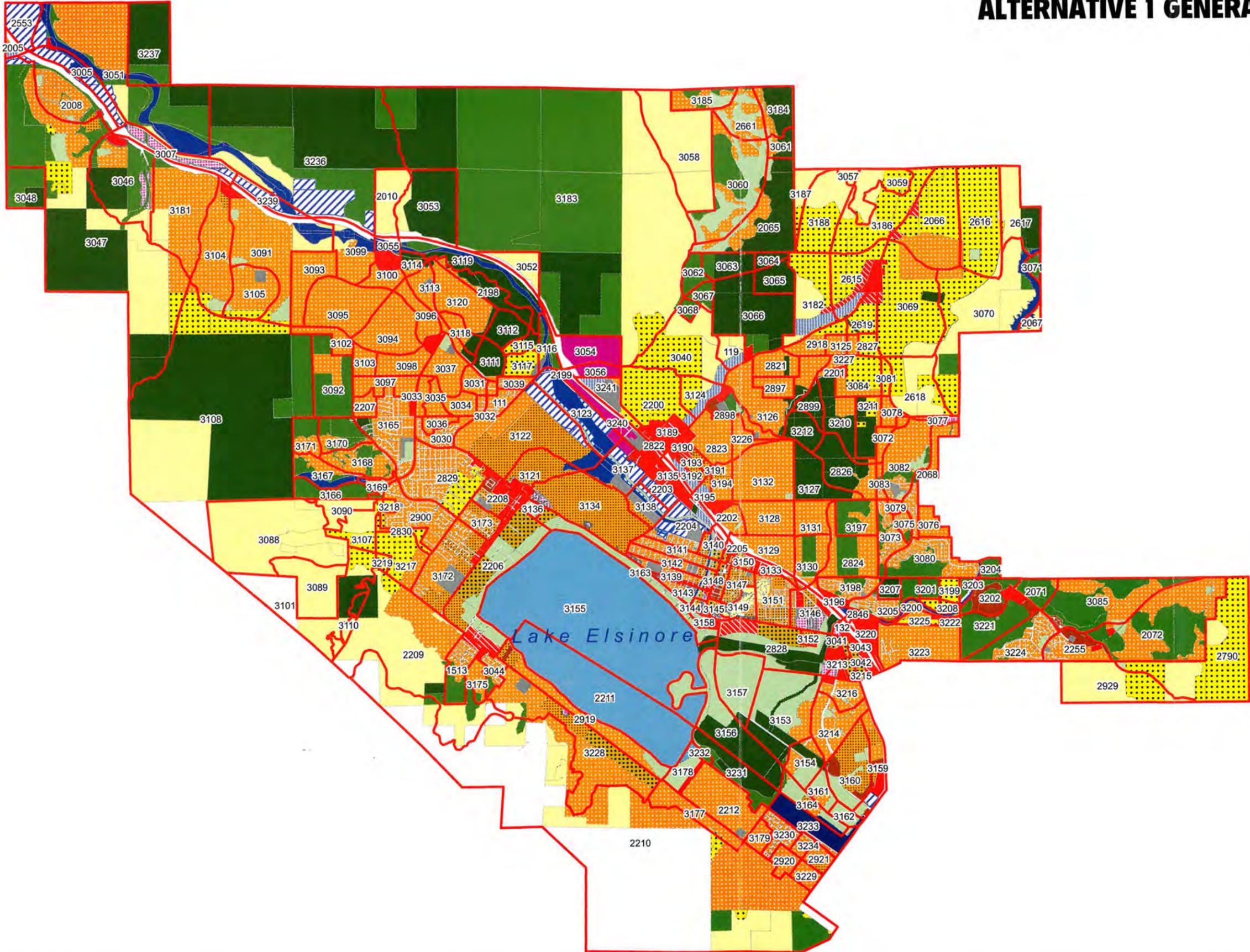


LEGEND:

- TAZ BOUNDARY
- BUSINESS PROFESSIONAL
- BUSINESS PARK
- LIMITED INDUSTRIAL
- FREEWAY BUSINESS
- NEIGHBORHOOD COMMERCIAL
- COMMERCIAL NEIGHBORHOOD
- TOURIST COMMERCIAL
- GENERAL COMMERCIAL
- COMMERCIAL MIXED USE
- RESIDENTIAL MIXED USE
- HILLSIDE RESIDENTIAL
- LOW DENSITY RESIDENTIAL
- LOW-MEDIUM RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- HIGH DENSITY RESIDENTIAL
- RECREATION
- OPEN SPACE
- MSHCP PRESERVE
- PUBLIC/INSTITUTIONAL
- AIRPORT USE AREA
- FLOODWAY



ALTERNATIVE 1 GENERAL PLAN LAND USE MAP

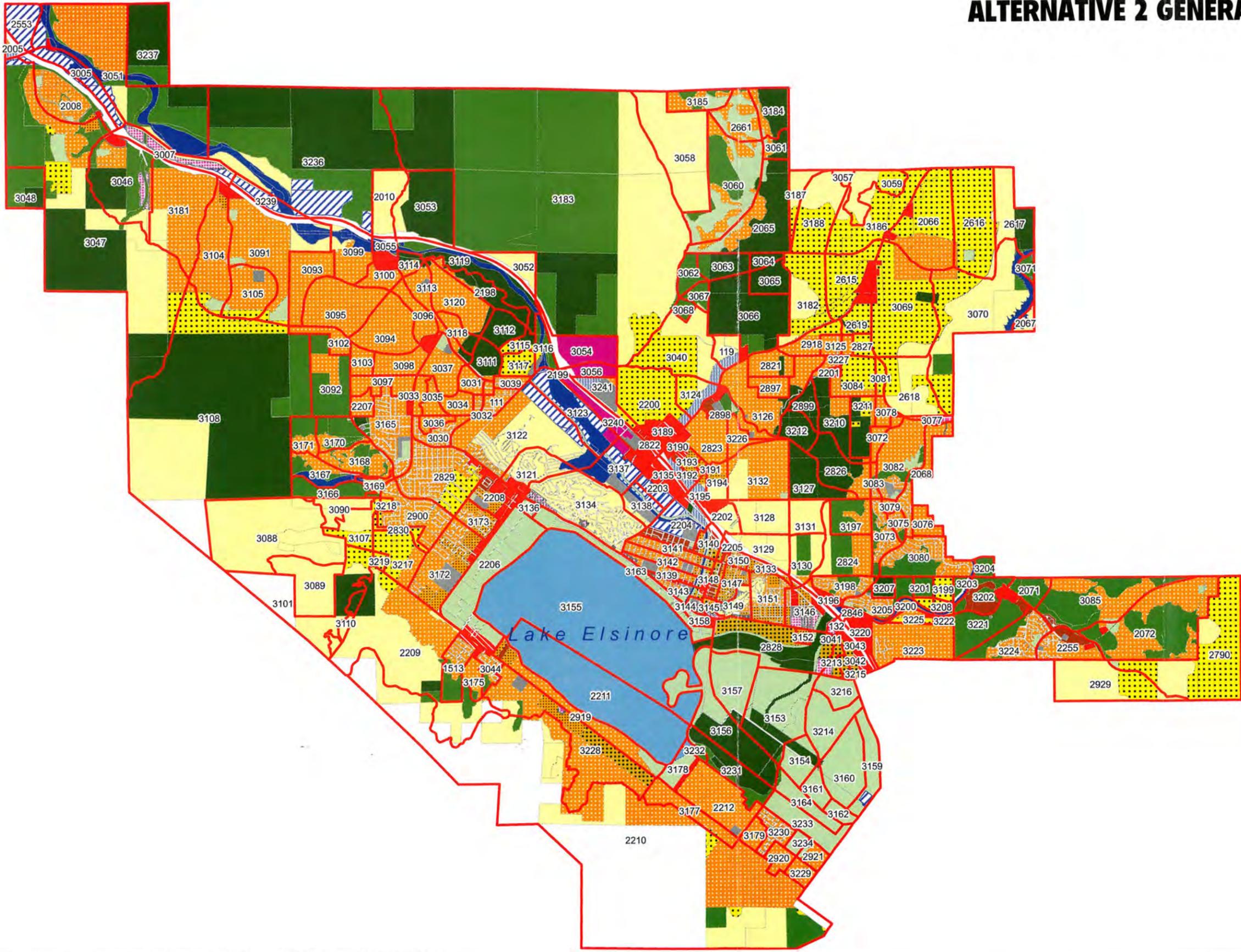


LEGEND:

- TAZ BOUNDARY
- BUSINESS PROFESSIONAL
- BUSINESS PARK
- LIMITED INDUSTRIAL
- FREEWAY BUSINESS
- NEIGHBORHOOD COMMERCIAL
- COMMERCIAL NEIGHBORHOOD
- TOURIST COMMERCIAL
- GENERAL COMMERCIAL
- COMMERCIAL MIXED USE
- RESIDENTIAL MIXED USE
- HILLSIDE RESIDENTIAL
- LOW DENSITY RESIDENTIAL
- LOW-MEDIUM RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- HIGH DENSITY RESIDENTIAL
- RECREATION
- OPEN SPACE
- MSHCP PRESERVE
- PUBLIC/INSTITUTIONAL
- AIRPORT USE AREA
- FLOODWAY



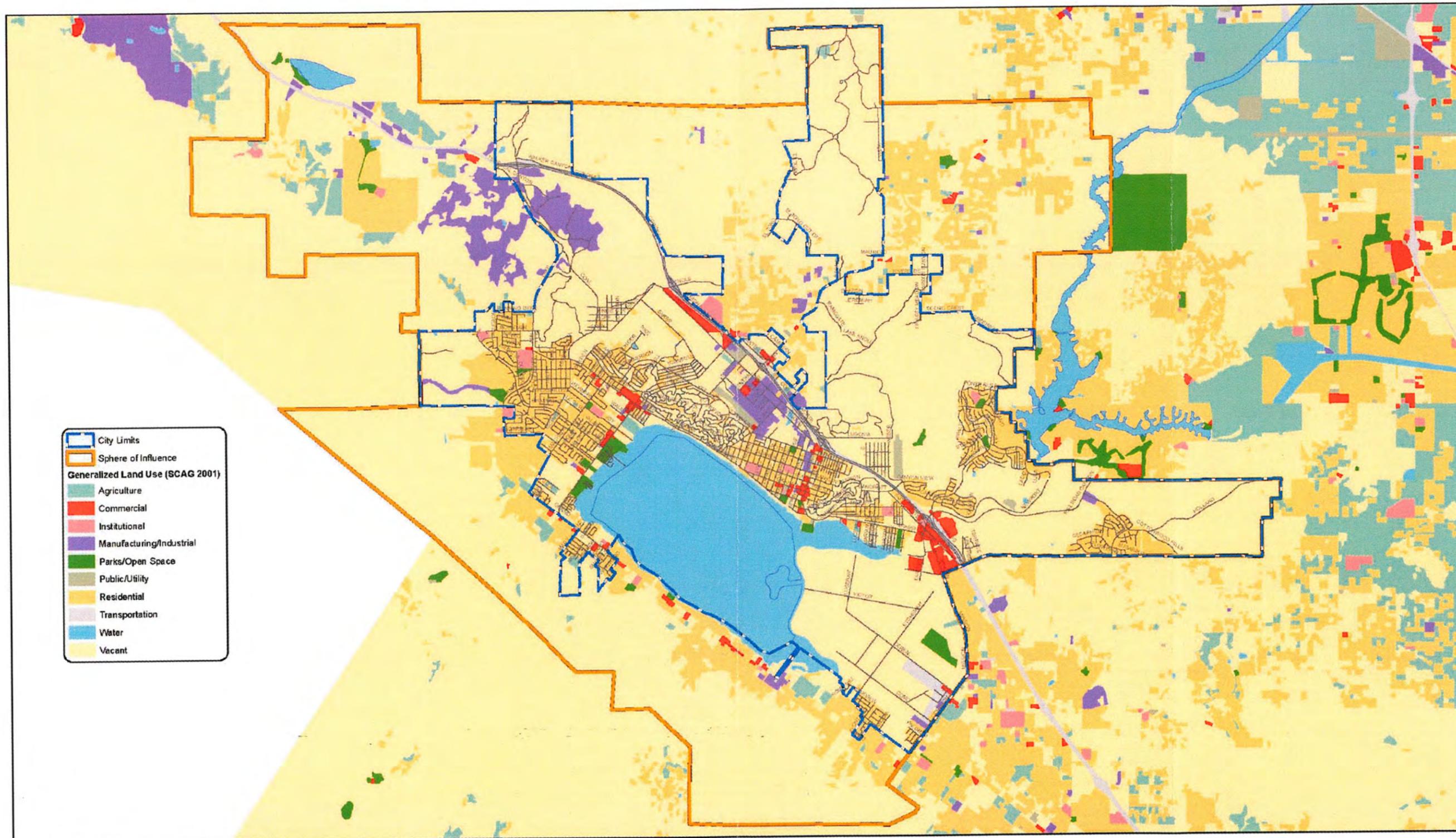
ALTERNATIVE 2 GENERAL PLAN LAND USE MAP



- LEGEND:**
- TAZ BOUNDARY
 - BUSINESS PROFESSIONAL
 - BUSINESS PARK
 - LIMITED INDUSTRIAL
 - FREEWAY BUSINESS
 - NEIGHBORHOOD COMMERCIAL
 - COMMERCIAL NEIGHBORHOOD
 - TOURIST COMMERCIAL
 - GENERAL COMMERCIAL
 - COMMERCIAL MIXED USE
 - RESIDENTIAL MIXED USE
 - HILLSIDE RESIDENTIAL
 - LOW DENSITY RESIDENTIAL
 - LOW-MEDIUM RESIDENTIAL
 - MEDIUM DENSITY RESIDENTIAL
 - HIGH DENSITY RESIDENTIAL
 - RECREATION
 - OPEN SPACE
 - MSHCP PRESERVE
 - PUBLIC/INSTITUTIONAL
 - AIRPORT USE AREA
 - FLOODWAY



EXISTING (2001) LAND USE MAP



Source: City of Lake Elsinore, County of Riverside, SCAG



Mooney Jones & Stokes

12/01/05 /GIS/Elsinore/mxd/fig1_3a1a



TABLE 2-1

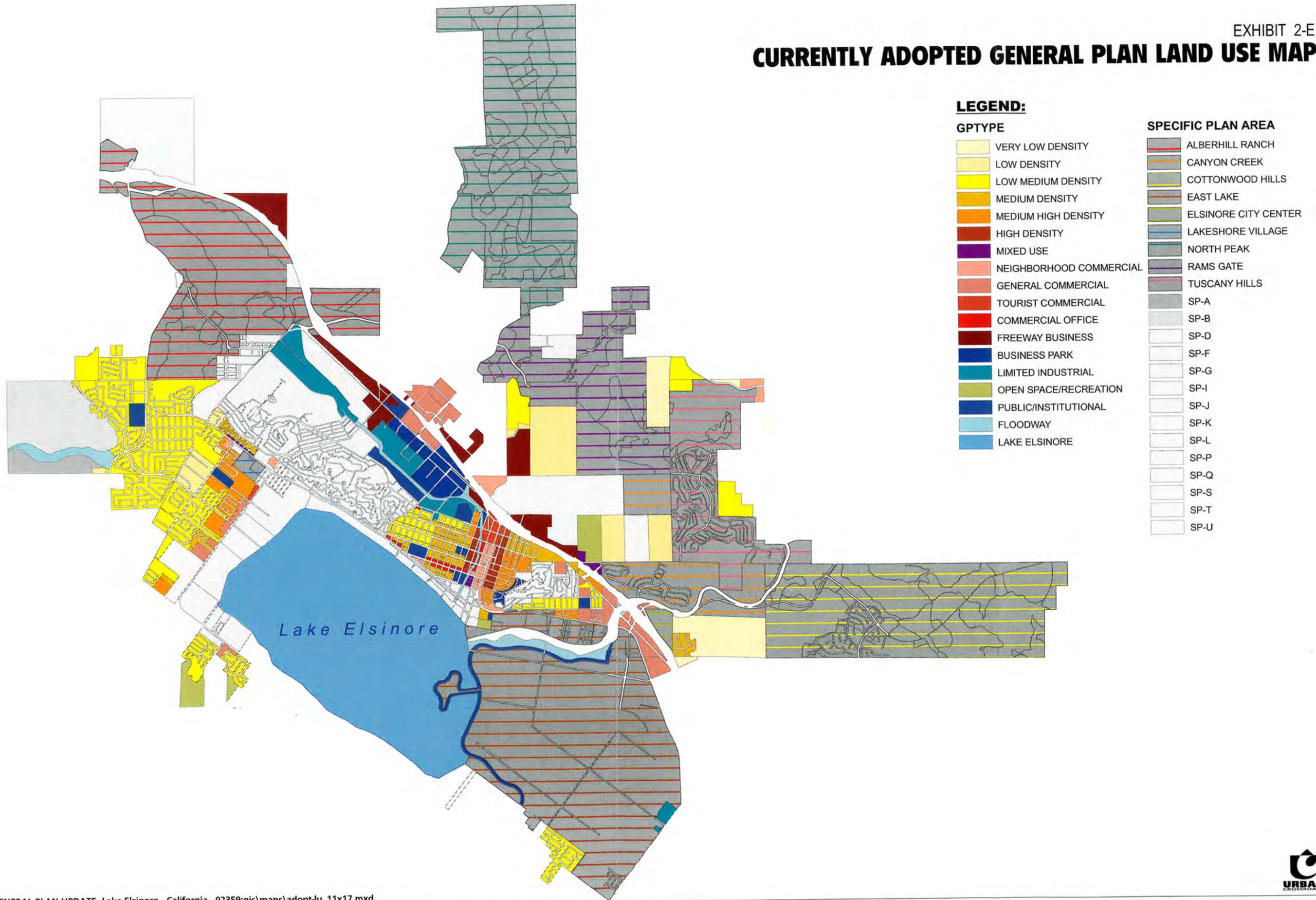
LAND USE DATA SUMMARY (IN ACRES)

	Hillside Residential	Low Density Residential	Low-Medium Residential	Medium Density Residential	High Density Residential	Neighborhood Commercial	General Commercial	Tourist Commercial	Freeway Business	Limited Industrial	Industrial Business Park	Public/Institutional	Commercial Mixed Use	Residential Mixed Use	Recreation	Airport Use Area	Grand Total
PREFERRED	8,938	5,604	13,305	841	311	38	895	201	293	974	273	498	190	341	1,836	162	34,700
ALTERNATIVE 1	8,138	4,853	13,330	1,825	227	40	878	171	293	877	0	399	210	455	2,333	162	34,192
ALTERNATIVE 2	9,574	4,973	12,215	629	223	39	820	178	293	872	0	402	72	364	3,457	0	34,109

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CURRENTLY ADOPTED GENERAL PLAN LAND USE MAP



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TABLE 2-2

NON-RESIDENTIAL LAND USE TO SED CONVERSION FACTORS

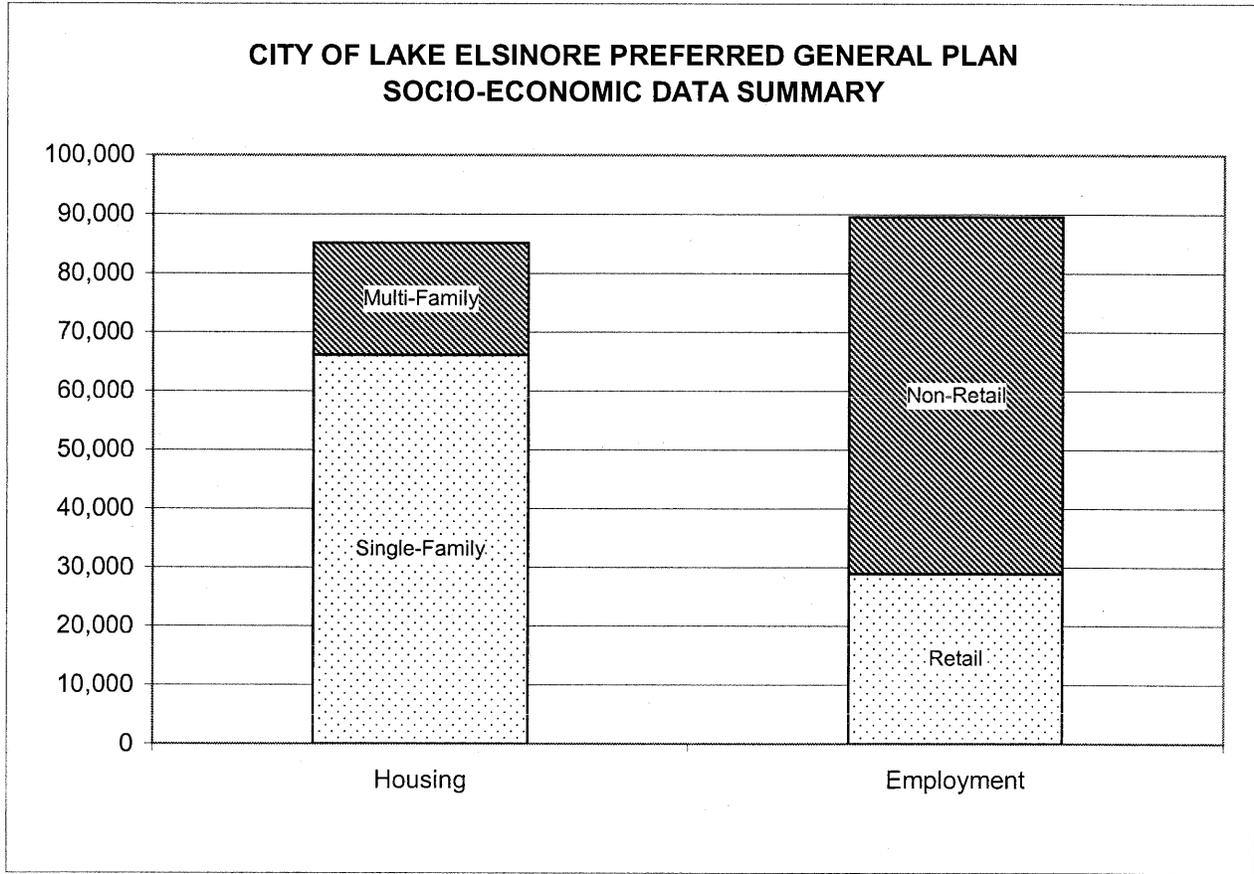
	Net to Gross	%	Description	FAR	s.f./acre	s.f./Employee	Employee/gross AC		Employee/net AC	
							Total	Retail	Total	Retail
Commercial										
Neighborhood	0.8			0.25	8,712	350	25	22	31	28
General	0.8			0.30	10,454	400	26	21	33	26
Tourist	0.8			0.35	12,197	450	27	19	34	24
Industrial										
Fwy Business	0.8			0.40	13,939	500	28	0	35	0
Lim. Industrial	0.8			0.45	15,682	600	26	0	33	0
Office										
Ind. BP	0.8			0.40	13,939	425	33	2	41	2
Public Institutional	0.8			0.20	6,970	450	15	2	19	2
Mixed Use										
Commercial MU	0.8	60%	commercial	0.30	6,273	400	16	13	20	16
Residential MU	0.8	40%	Residential							
	0.8	20%	Commercial	0.30	2,091	400	5	4	7	5
	0.8	80%	Residential							
Other										
Recreation	---						2.2	0.3	2.2	0.3
Airport	---						0.5	0.0	0.5	0.0

TABLE 2-3

LAND USE TO SED CONVERSION FACTOR

Proposed GP Land Use	Base Unit	Gross Net to Acre Ration	Density Range	Mid-Range Density			Employee/gross AC		Employee/net AC			
				SFDU	MFDU	TOTAL DU	POP Per SFDU	MFDU	Retail	Total	Retail	
												POP Per
RESIDENTIAL												
Hillside Residential	ACRES	-	0.1 DU / ACRE	0.25	-	0.25	3.17	-	-	-	-	-
Low Density	ACRES	-	1 DU / ACRE	1	-	1	3.17	-	-	-	-	-
Low Medium	ACRES	-	2 to 6 DU / ACRE	4	-	4	3.17	-	-	-	-	-
Medium Density	ACRES	-	6 to 18 DU / ACRE	6	6	12	3.17	2.7	-	-	-	-
High Density	ACRES	-	24 DU/1 ACRE with possible bonus to 35 DU/1 ACRE	-	18	18	-	2.7	-	-	-	-
COMMERCIAL												
Comm Neighborhood	ACRES	0.8	-	-	-	-	-	-	25	22	31	28
Comm General	ACRES	0.8	-	-	-	-	-	-	26	21	33	26
Comm Tourist	ACRES	0.8	-	-	-	-	-	-	27	19	34	24
INDUSTRIAL												
Fwy Business	ACRES	0.8	-	-	-	-	-	-	28	0	35	0
Ind Ltd	ACRES	0.8	-	-	-	-	-	-	26	0	33	0
OFFICE												
Ind BP	ACRES	0.8	-	-	-	-	-	-	33	2	41	2
Public Institution	ACRES	0.8	-	-	-	-	-	-	15	2	19	2
MIXED USE												
Commercial MU	ACRES	0.8	60% Commercial	-	-	-	-	-	16	13	20	16
		-	40% Residential	-	10	-	-	2.7	-	-	-	-
		0.8	20% Commercial	-	-	-	-	-	5	4	7	5
		-	80% Residential	-	19	-	-	2.7	-	-	-	-
OTHER												
Recreation	ACRES	-	-	-	-	-	-	-	2.2	0.3	2.2	0.3
Airport	ACRES	-	-	-	-	-	-	-	0.5	0.0	0.5	0.0

CHART 2-A

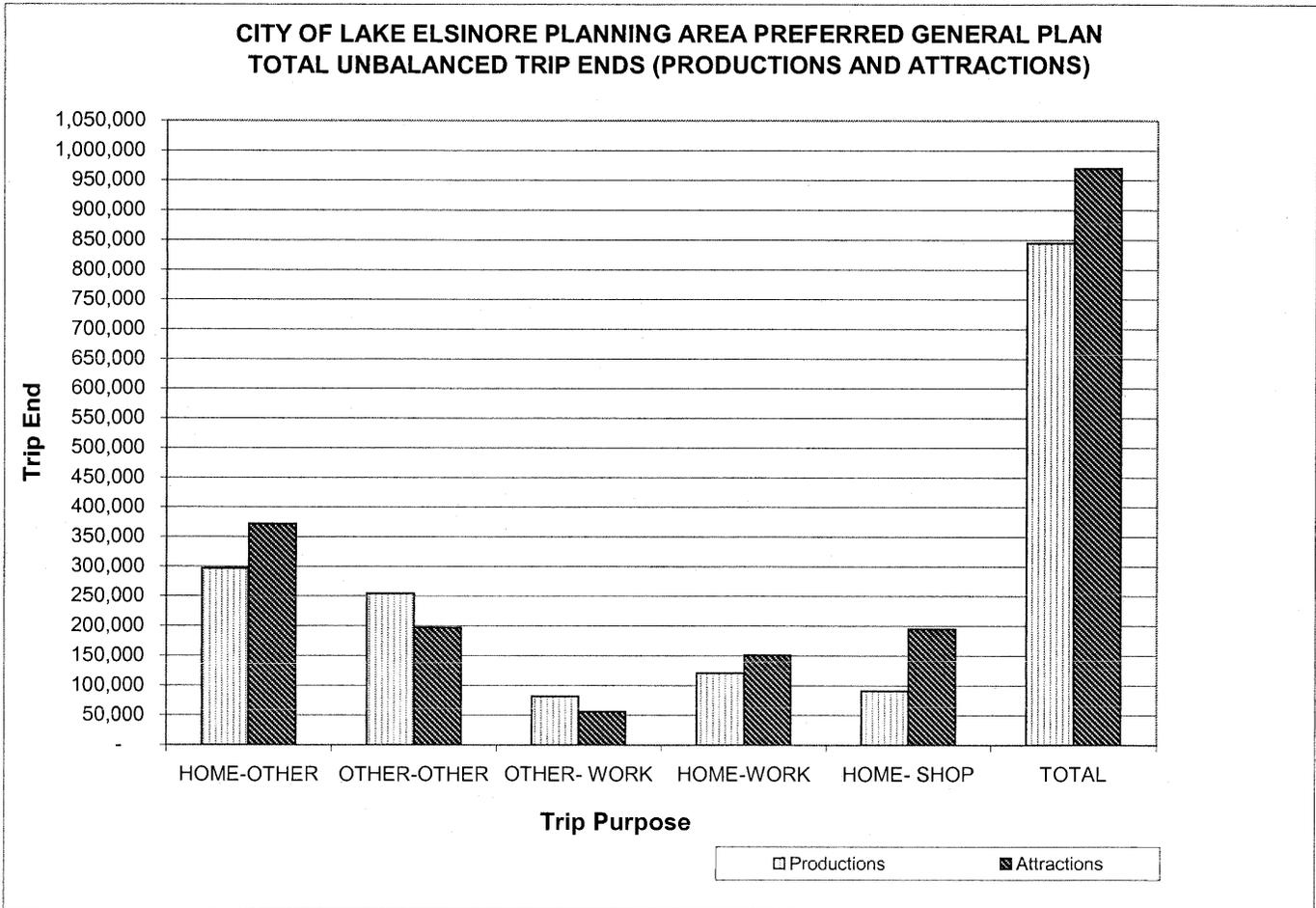


SOCIO-ECONOMIC VARIABLE	QUANTITY	UNITS
Single Family Housing	66,105	Dwelling Units
Multi Family Housing	19,023	Dwelling Units
Total - Housing	85,128	Dwelling Units
Population	260,913	
Retail Employment	28,907	Employees
Non-Retail Employment	60,642	Employees
Total - Employment	89,549	Employees

¹ Source: Mooney Jones & Stokes, May, 2006, updated on June 16,2006

Employee per Household = 1.05

CHART 2-B



	HOME-OTHER	OTHER-OTHER	OTHER-WORK	HOME-WORK	HOME-SHOP	TOTAL
Productions	296,578	254,429	81,730	121,138	90,898	844,773
Attractions	371,864	196,979	55,619	150,716	194,673	969,851
TOTAL	668,442	451,408	137,349	271,854	285,571	1,814,624
P - A	(75,286)	57,450	26,111	(29,578)	(103,775)	(125,078)
P/A	0.80	1.29	1.47	0.80	0.47	0.87

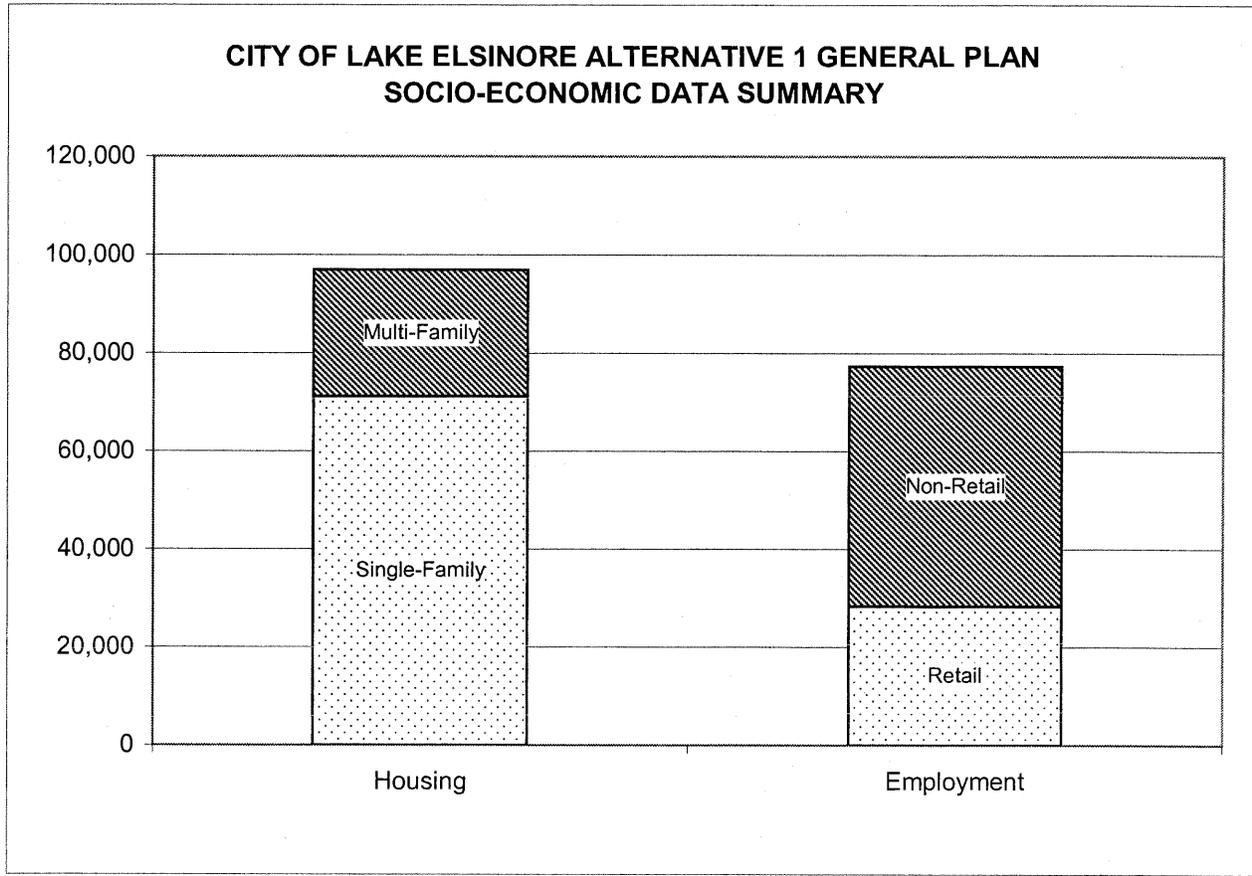
As illustrated on Chart 2-A, a total of 85,128 dwelling units (including both single and multi family housing) and a total of 89,549 employees (including both retail and non-retail) are projected under the Preferred General Plan conditions. As illustrated, the City of Lake Elsinore Preferred General Plan results in 1.05 employees per household. Chart 2-B shows the total trip ends (productions and attractions) for the five trip purposes generated from the model for the Lake Elsinore Planning Area under Preferred General Plan conditions. As illustrated, the total productions (home end) are 844,773, while the total attractions (non-residential) are 969,851 trip ends.

2.2 Alternative 1 General Plan Socio-Economic Data and Trip Ends

The City of Lake Elsinore Alternative 1 General Plan socio-economic data summary is shown on Chart 2-C. Chart 2-D illustrates City of Lake Elsinore planning area Alternative 1 General Plan total unbalanced trip ends. The detailed SED by TAZs for Alternative 1 General Plan are included in Appendix “B”.

As indicated on Chart 2-C, a total of 96,947 dwelling units (including both single and multi family housing) and a total of 77,351 employees (including both retail and non-retail) are projected under the Alternative 1 General Plan conditions. The Alternative 1 General Plan represents the high density residential general plan conditions. It results in 0.8 employees per household. Chart 2-D shows the total trip ends (productions and attractions) for the five trip purposes generated from the model for the Lake Elsinore Planning Area under Alternative 1 General Plan conditions. As illustrated, the total productions (home end) are 904,948, while the total attractions (non-residential) are 963,896 trip ends. The internal balance of jobs and housing is improved compared to the Preferred Alternative, but Lake Elsinore would continue to be a net importer of workers. Alternative 1 will generate an additional 54,220 trip-ends or approximately 3 percent more trip-ends compared to the Preferred Alternative.

CHART 2-C

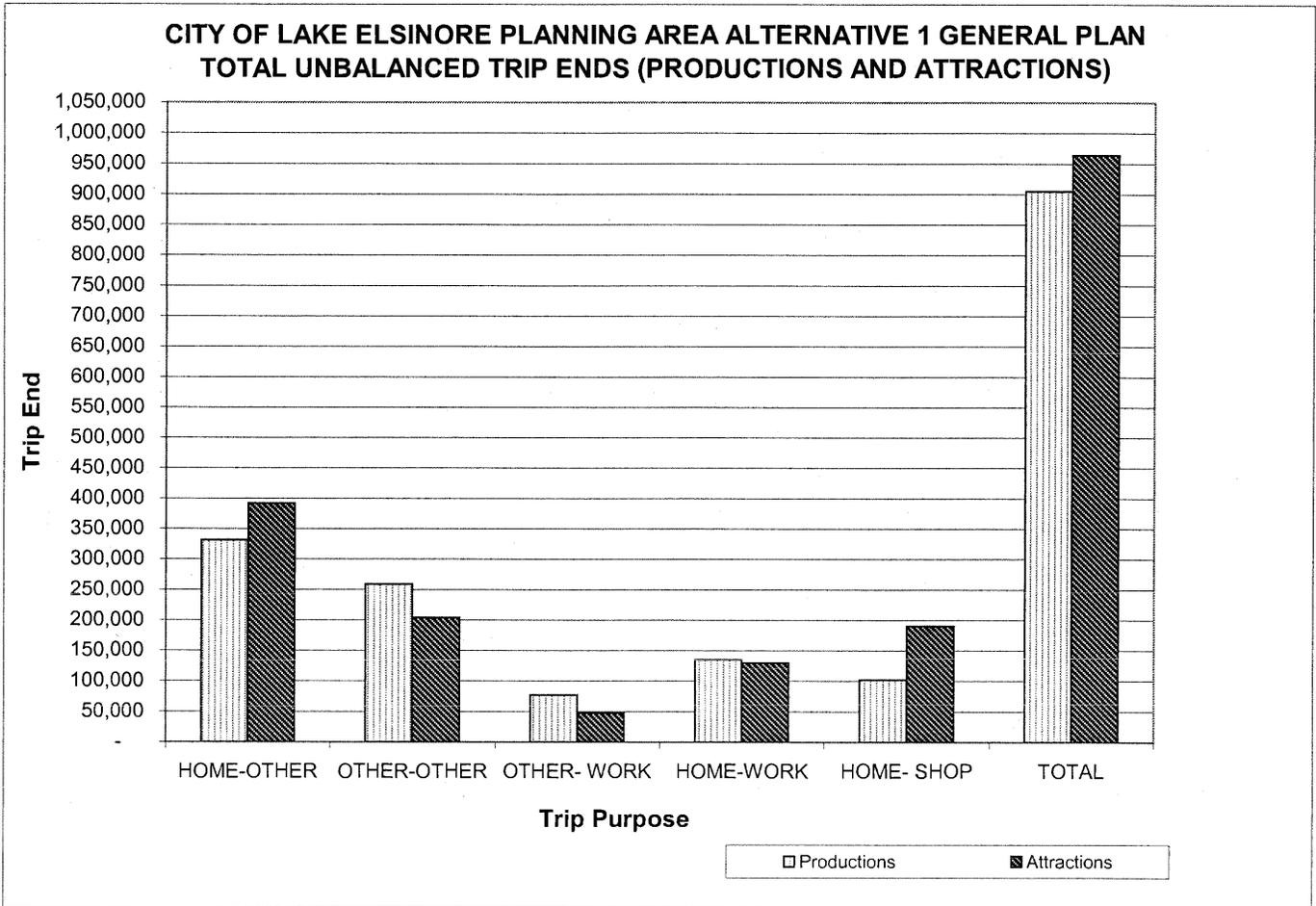


SOCIO-ECONOMIC VARIABLE	QUANTITY	UNITS
Single Family Housing	71,161	Dwelling Units
Multi Family Housing	25,788	Dwelling Units
Total - Housing	96,949	Dwelling Units
Population	295,209	
Retail Employment	28,281	Employees
Non-Retail Employment	49,070	Employees
Total - Employment	77,351	Employees

¹ Source: Mooney Jones & Stokes, May, 2006, updated on June 16,2006

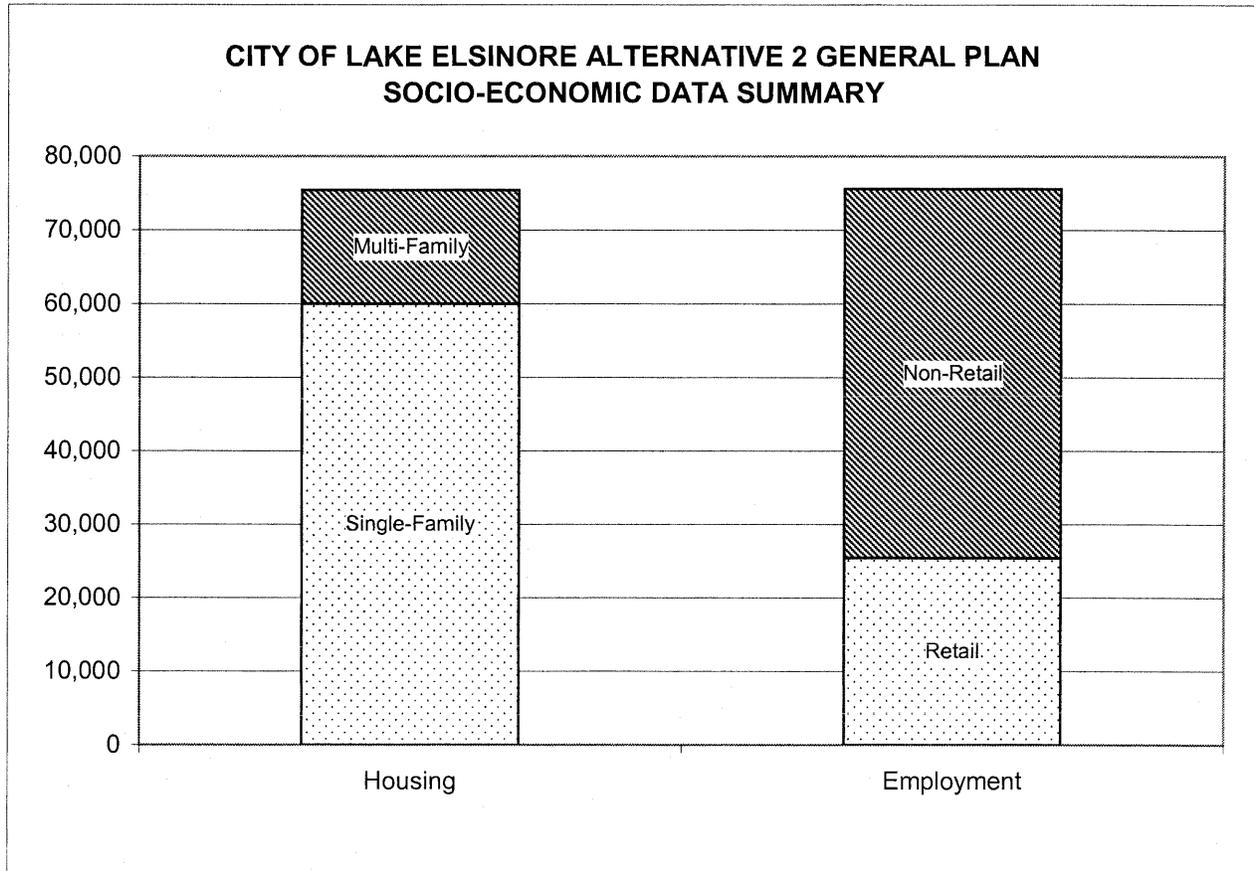
Employee per Household = 0.80

CHART 2-D



	HOME-OTHER	OTHER-OTHER	OTHER-WORK	HOME-WORK	HOME-SHOP	TOTAL
Productions	331,274	258,838	77,040	135,544	102,252	904,948
Attractions	391,629	203,721	48,025	130,170	190,351	963,896
TOTAL	722,903	462,559	125,065	265,714	292,603	1,868,844
P - A	(60,355)	55,117	29,015	5,374	(88,099)	(58,948)
P/A	0.85	1.27	1.60	1.04	0.54	0.94

CHART 2-E

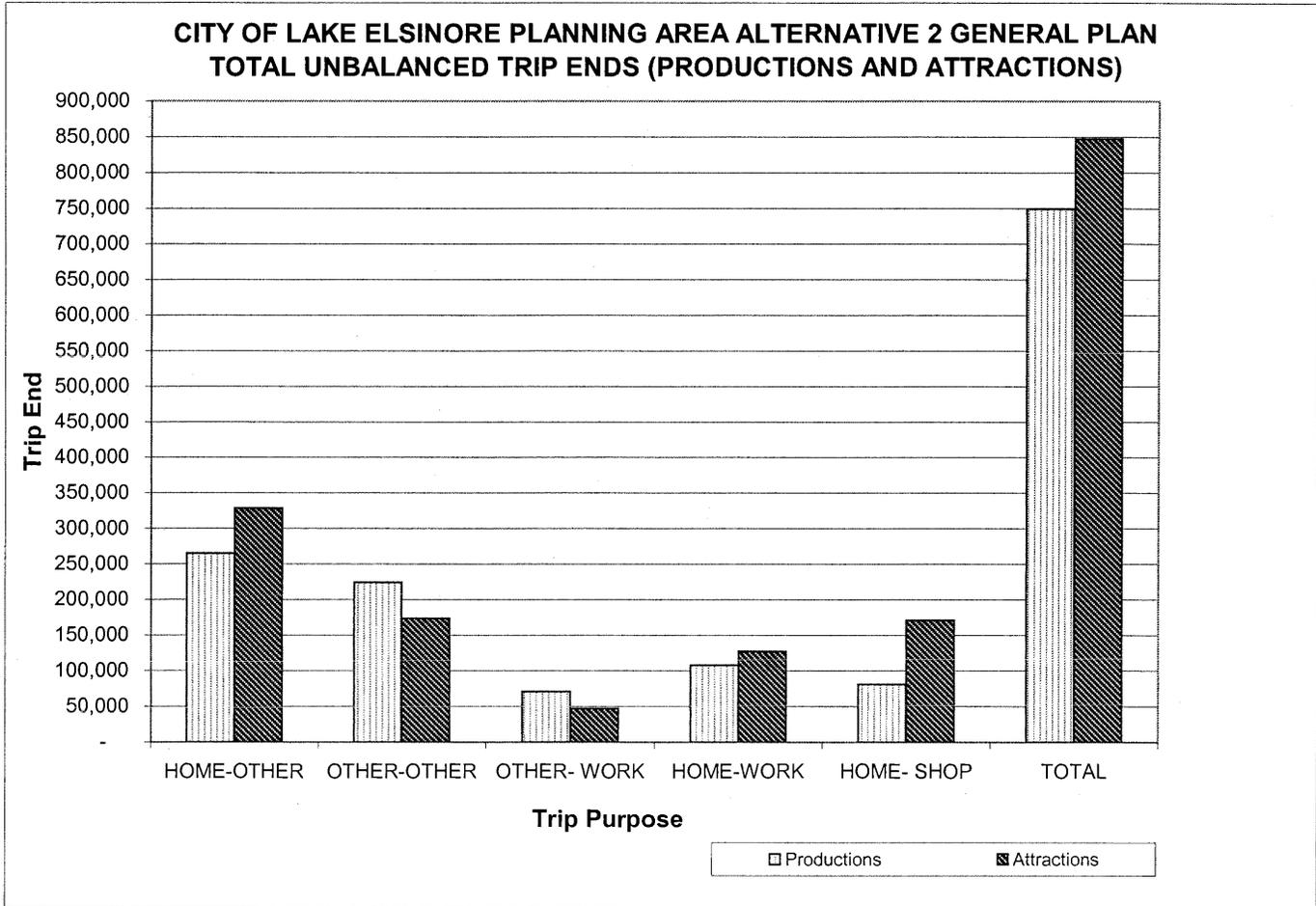


SOCIO-ECONOMIC VARIABLE	QUANTITY	UNITS
Single Family Housing	60,000	Dwelling Units
Multi Family Housing	15,416	Dwelling Units
Total - Housing	75,417	Dwelling Units
Population	231,825	
Retail Employment	25,401	Employees
Non-Retail Employment	50,170	Employees
Total - Employment	75,571	Employees

¹ Source: Mooney Jones & Stokes, May, 2006, updated on June 16,2006

Employee per Household = 1.00

CHART 2-F



	HOME-OTHER	OTHER-OTHER	OTHER-WORK	HOME-WORK	HOME-SHOP	TOTAL
Productions	265,029	224,084	70,897	108,064	81,111	749,185
Attractions	328,416	173,719	46,918	127,177	170,945	847,175
TOTAL	593,445	397,803	117,815	235,241	252,056	1,596,360
P - A	(63,387)	50,365	23,979	(19,113)	(89,834)	(97,990)
P/A	0.81	1.29	1.51	0.85	0.47	0.88

2.3 Alternative 2 General Plan Socio-Economic Data and Trip Ends

The City of Lake Elsinore Alternative 2 General Pplan socio-economic data summary is shown on Chart 2-E. Chart 2-F illustrates the City of Lake Elsinore planning area Alternative 2 general plan total unbalanced trip ends. The detailed socio-economic data for Alternative 2 General Plan by TAZs are included in Appendix "C".

As indicated on Chart 2-E, a total of 75,417 dwelling units (including both single and multi family housing) and a total of 75,571 employees (including both retail and non-retail) are projected under the Alternative 2 General Plan conditions. The Alternative 2 General Plan represents the low density residential general plan conditions and has assumed 1.0 employee per household. Chart 2-F shows the total trip ends (productions and attractions) for the five trip purposes generated from the model for the Lake Elsinore Planning Area under Alternative 2 General Plan conditions. As illustrated, the total productions (home end) are 749,185, while the total attractions (non-residential) are 847,175 trip ends. The balance of jobs and housing is similar to the Preferred Alternative. Alternative 2 will generate 218,264 less trip-ends than the Preferred Alternative. This represents a decrease of approximately 12%.

3.0 EXISTING CONDITIONS

This section of the traffic study report describes the existing traffic conditions in the study area, including the existing roadway features, daily traffic volumes, intersection turning movement volumes and levels of service analysis, the existing transit services, and the Currently Adopted General Plan Circulation Element and roadway standard cross-sections.

3.1 Existing Roadway Characteristics

Field review of the existing roadway system has been performed. Exhibit 3-A depicts 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. Exhibit 3-B and 3-C illustrate currently adopted City of Lake Elsinore General Plan circulation element and roadway cross-sections. Riverside County general plan circulation element and cross-sections are as shown on Exhibit 3-D and 3-E, respectively.

A brief description of each roadway is provided below:

The I-15 Freeway (I-15 Freeway) traverses in a generally north/south direction along the east side of the lake and central city. To the north, the I-15 Freeway connects with the Riverside Freeway (State Route 91), the Pomona Freeway (State Route 60), and the San Bernardino Freeway (Interstate 10) and is the link to greater Los Angeles and the Inland Empire. To the south, the I-15 Freeway connects with the Escondido Freeway (Interstate 215) and is the link to San Diego County. The I-15 Freeway is currently 3 lanes in each direction within 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 the

EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS (PAGE 1 OF 2)

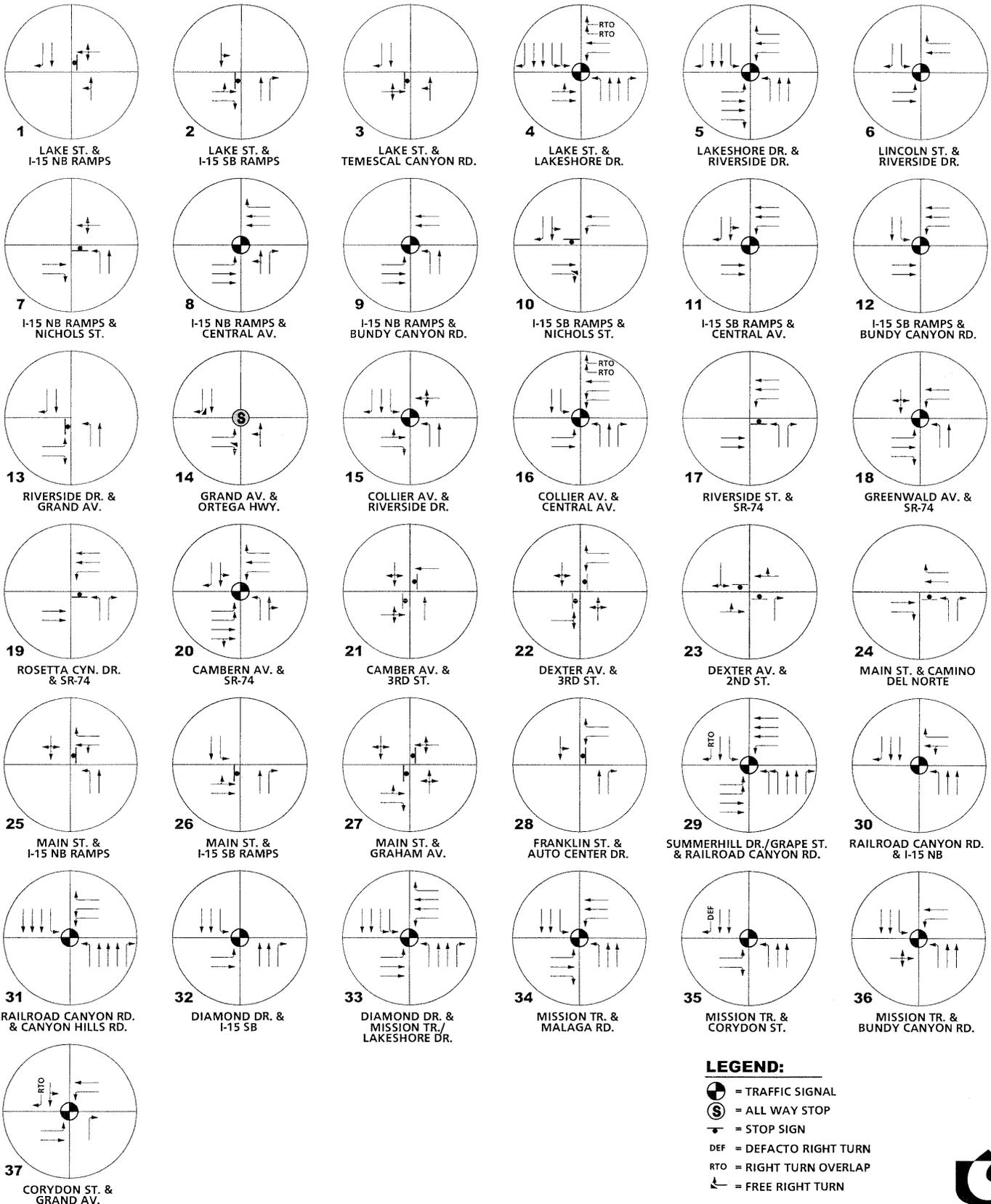
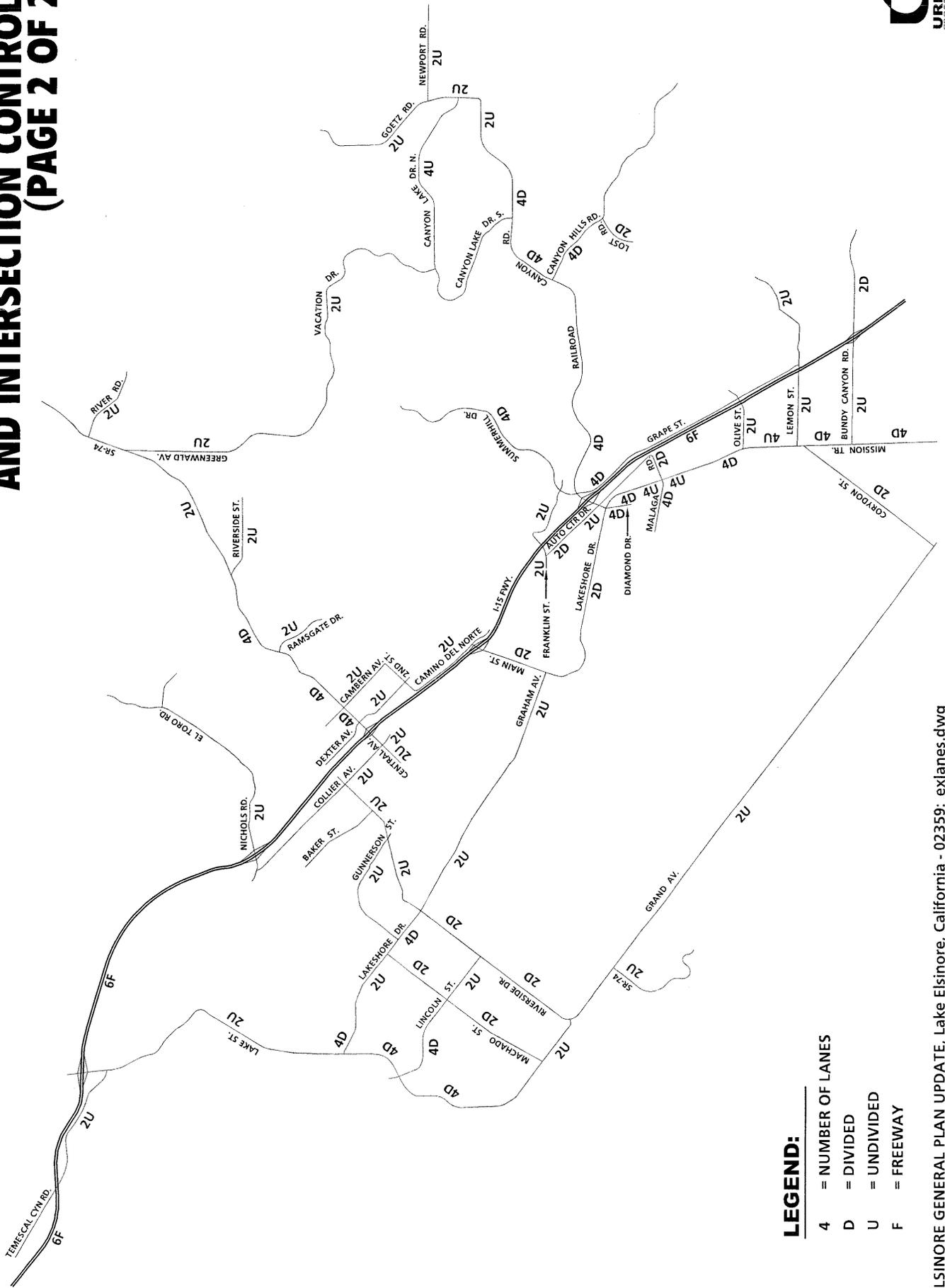


EXHIBIT 3-A
**EXISTING NUMBER OF THROUGH LANES
 AND INTERSECTION CONTROLS
 (PAGE 2 OF 2)**



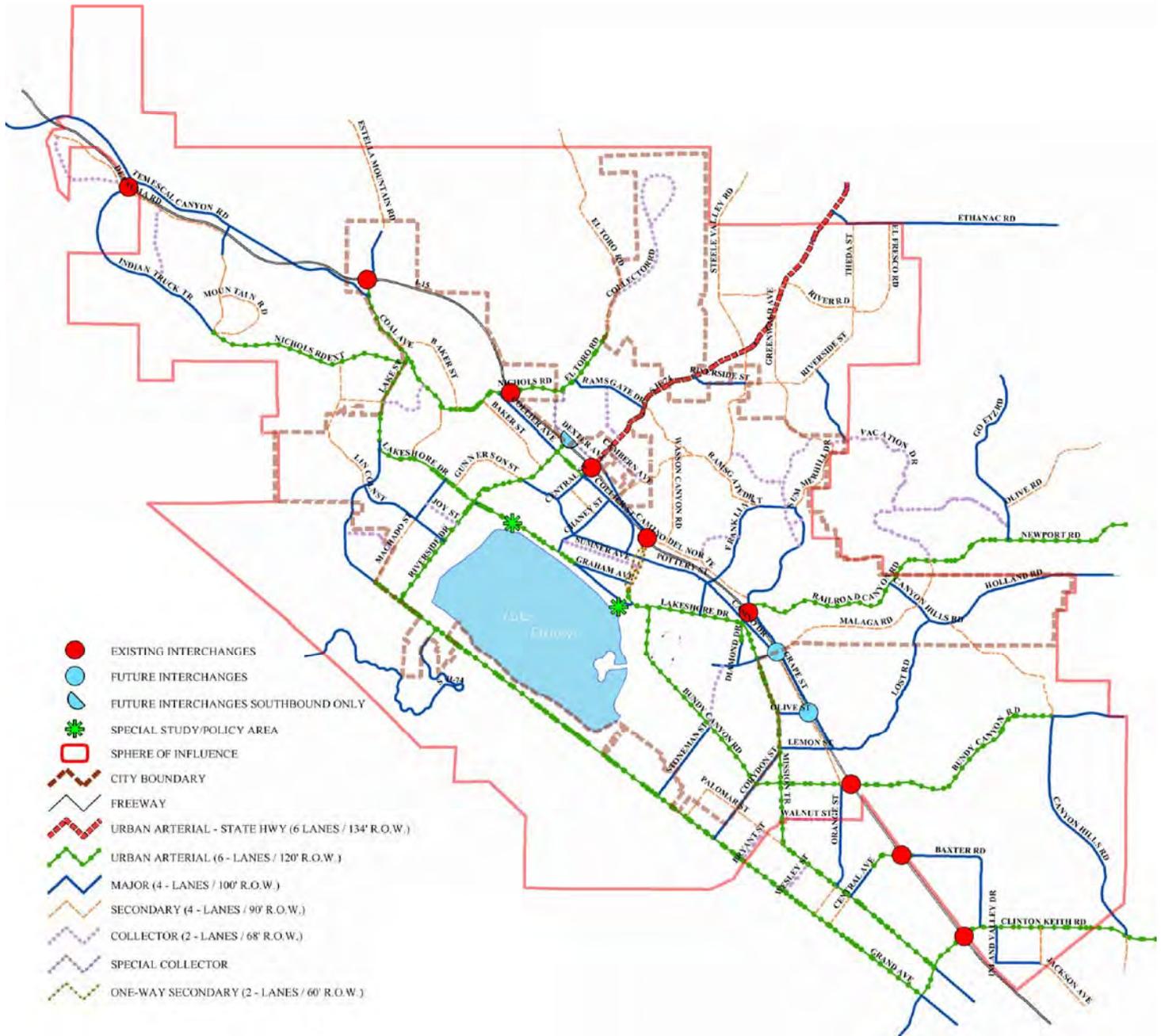
LEGEND:

4	=	NUMBER OF LANES
D	=	DIVIDED
U	=	UNDIVIDED
F	=	FREEWAY

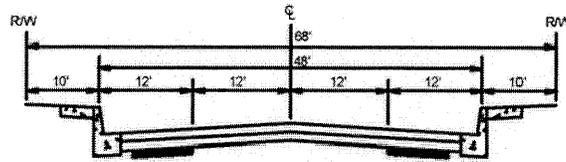


EXHIBIT 3-B

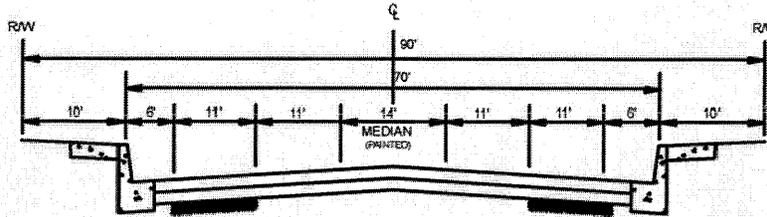
CITY OF LAKE ELSINORE CURRENTLY ADOPTED GENERAL PLAN CIRCULATION ELEMENT



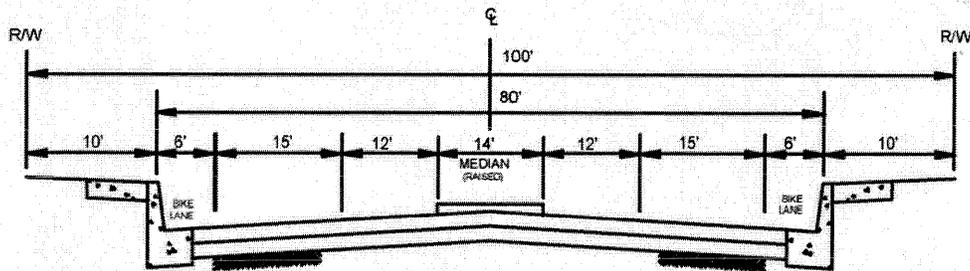
CITY OF LAKE ELSINORE CURRENTLY ADOPTED GENERAL PLAN ROADWAY CROSS-SECTIONS



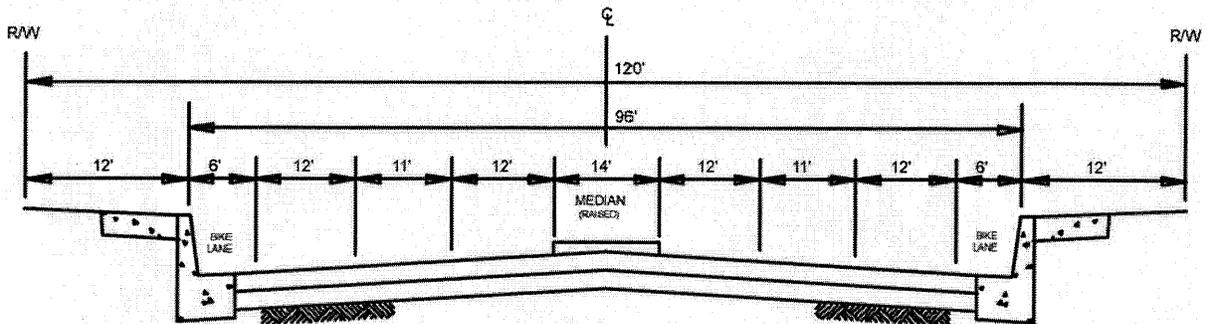
COLLECTOR HIGHWAY
(2-LANE)



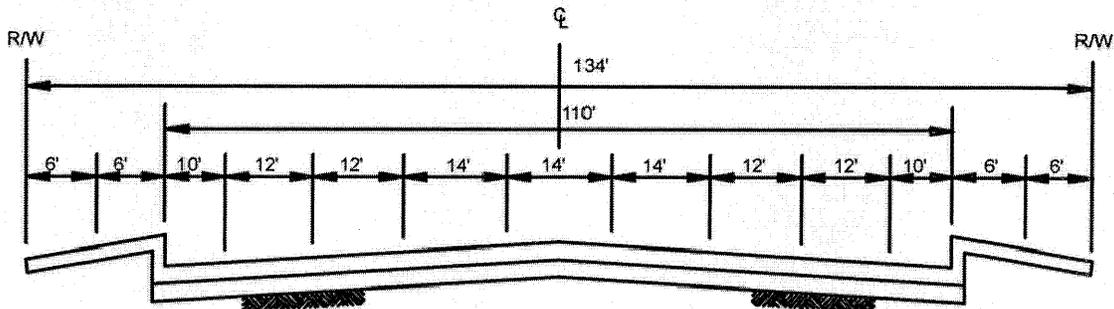
SECONDARY HIGHWAY
(4-LANE)



MAJOR HIGHWAY
(4-LANE)

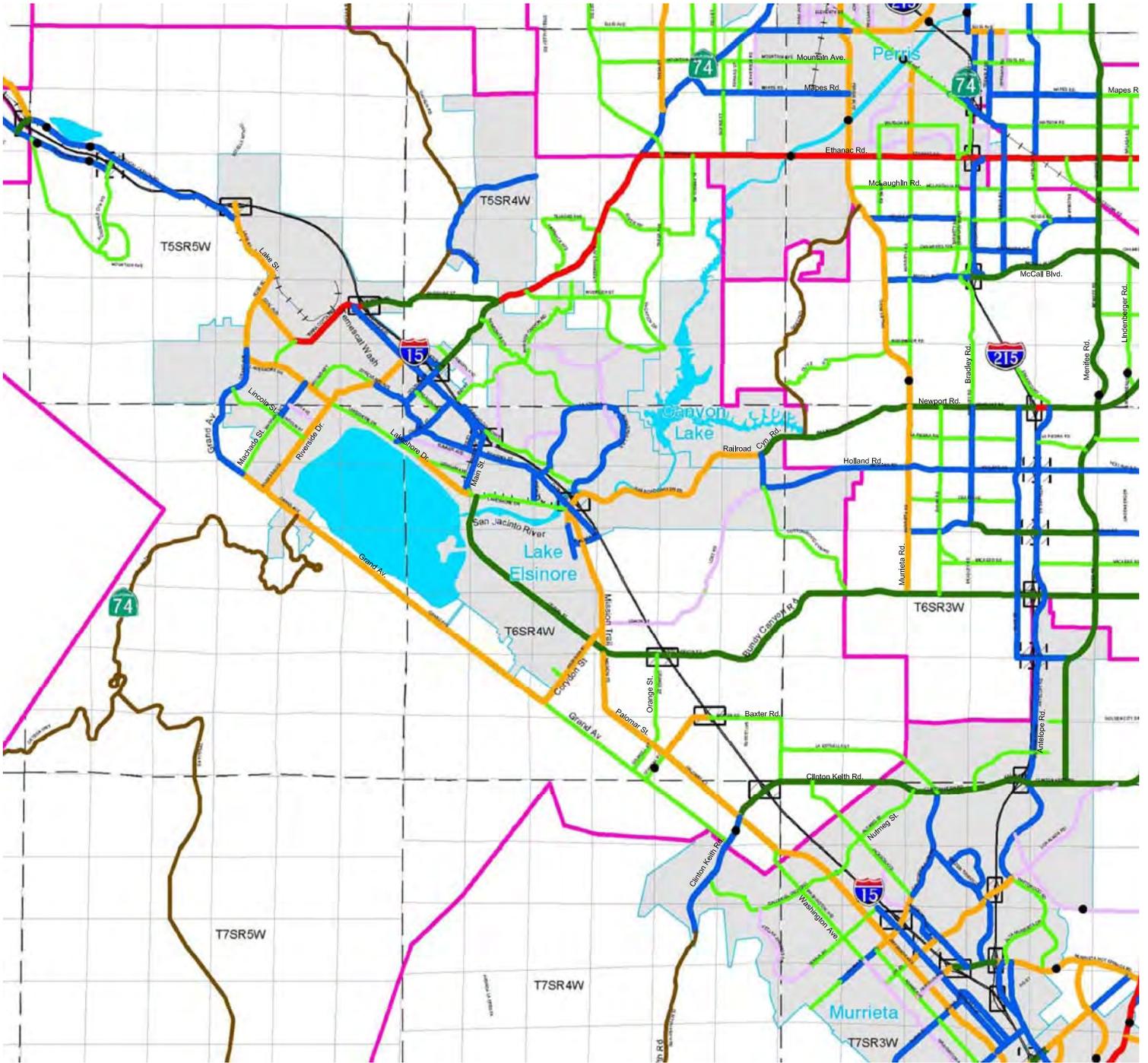


URBAN ARTERIAL HIGHWAY
(6-LANE)



URBAN ARTERIAL - STATE HIGHWAY
(6-LANE)

EXHIBIT 3-D RIVERSIDE COUNTY GENERAL PLAN CIRCULATION ELEMENT

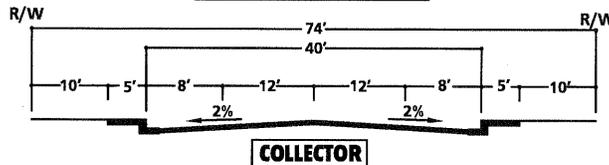
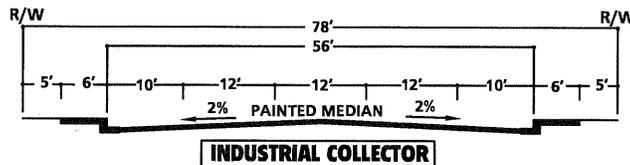
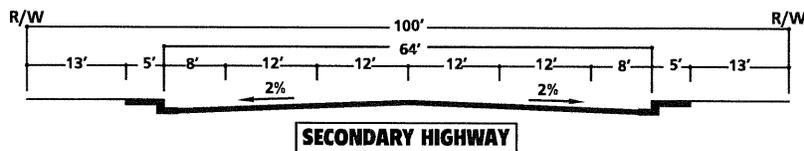
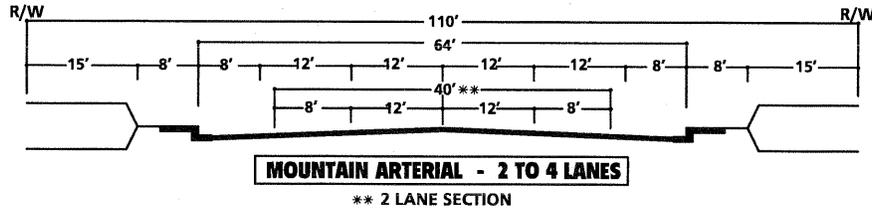
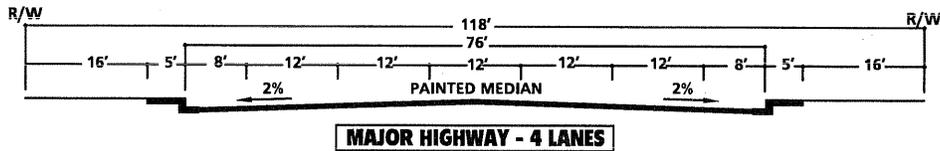
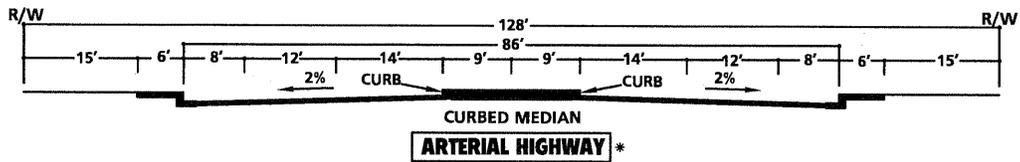
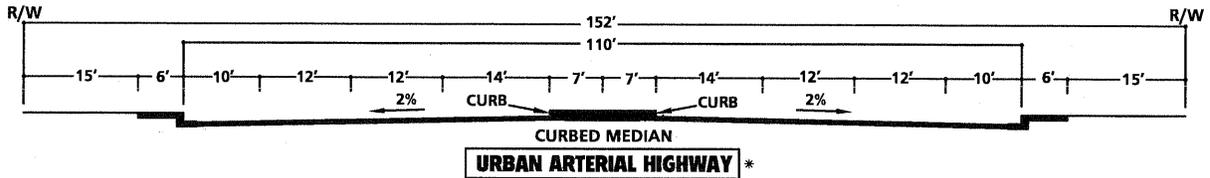
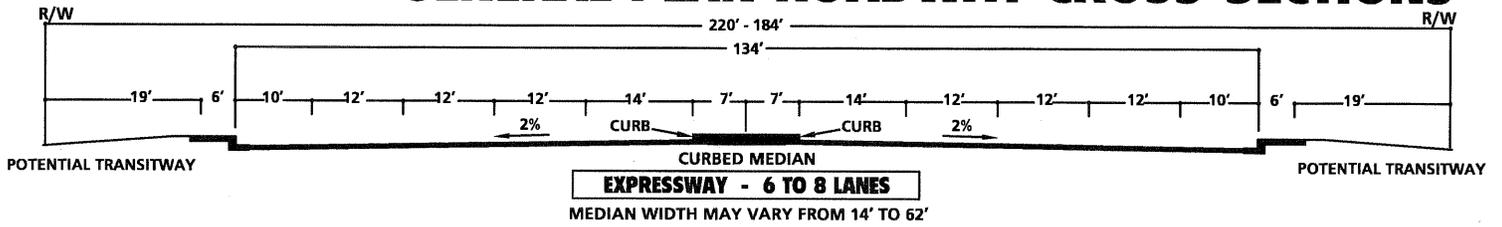


- | | | |
|------------------------------|---|--------------------|
| Expressway (184' ROW) | Bridges | Area Plan Boundary |
| Urban Arterial (152' ROW) | Moreno Valley to San Bernardino Corridor Alternatives | Township |
| Arterial (128' ROW) | Hemet to Corona/Lake Elsinore Corridor Alternatives | Section |
| Major (118' ROW) | SR-79 Re-alignment Alternatives | Water |
| Secondary (100' ROW) | Proposed Interchange | City |
| Collector (74' ROW) | Existing Interchange | |
| Mountain Arterial (110' ROW) | | |
| Freeway | | |
| Railroad | | |

SOURCE: RIVERSIDE COUNTY INTEGRATED PROJECT (RCIP)



EXHIBIT 3-E
RIVERSIDE COUNTY
GENERAL PLAN ROADWAY CROSS-SECTIONS



* IMPROVEMENTS MAY BE RECONFIGURED TO ACCOMMODATE EXCLUSIVE TRANSIT LANES OR ALTERNATIVE LANE ARRANGEMENTS. ADDITIONAL RIGHT OF WAY MAY BE REQUIRED AT INTERSECTIONS TO ACCOMMODATE ULTIMATE IMPROVEMENTS FOR STATE HIGHWAYS. SHALL CONFORM TO CALTRANS DESIGN STANDARDS.

SOURCE: COUNTY OF RIVERSIDE



San Diego Freeway (Interstate 5) and is the link to the coast and Orange County. To the east, SR-74 connects with the Escondido Freeway (Interstate 215) and is the link to Perris and Hemet. SR-74 is mostly a 2-lane roadway except the segment north of the I-15 Freeway toward Riverside Street has been widened to a 4-lane divided roadway to accommodate the recent development along the area.

Lake Street southerly from the I-15 Freeway to Lakeshore Drive is a two-lane undivided roadway. South of Lakeshore Drive, it becomes Grand Avenue and has been widened to a 4-lane divided roadway. Lake Street/Grand Avenue is a major access to northern areas of the city from the I-15 Freeway.

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 is a two-lane undivided roadway, which makes up a segment of State Route 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 4-lane roadway with a center left turn lane.

Railroad Canyon Road northerly from the I-15 Freeway is a major link between the I-15 Freeway and the I-215 Freeway easterly of the City of Lake Elsinore. Railroad Canyon Road is currently a 4-lane divided roadway. Significant residential development is in progress along both sides of this roadway.

Newport Road, which is an extension of Railroad Canyon Road east of the City of Canyon Lake, currently is a 2-lane undivided roadway. Significant residential development is also in progress along both sides of this roadway.

Mission Trail from Railroad Canyon Road to Palomar Street, mostly a 4-lane undivided roadway, is an important route southerly from the commercial area at the Railroad Canyon Road interchange with the I-15 Freeway. Portions of the roadway in the vicinity of Bundy Canyon Road have been widened to a 4-lane divided section roadway.

Grand Avenue between Riverside Drive and Corydon Street is a 2-lane undivided roadway. This north/south route is the only through roadway around the west side of the lake and provides an important connection to Ortega Highway from the area south of the lake.

3.2 Existing Daily Traffic Conditions

Exhibit 3-F 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:

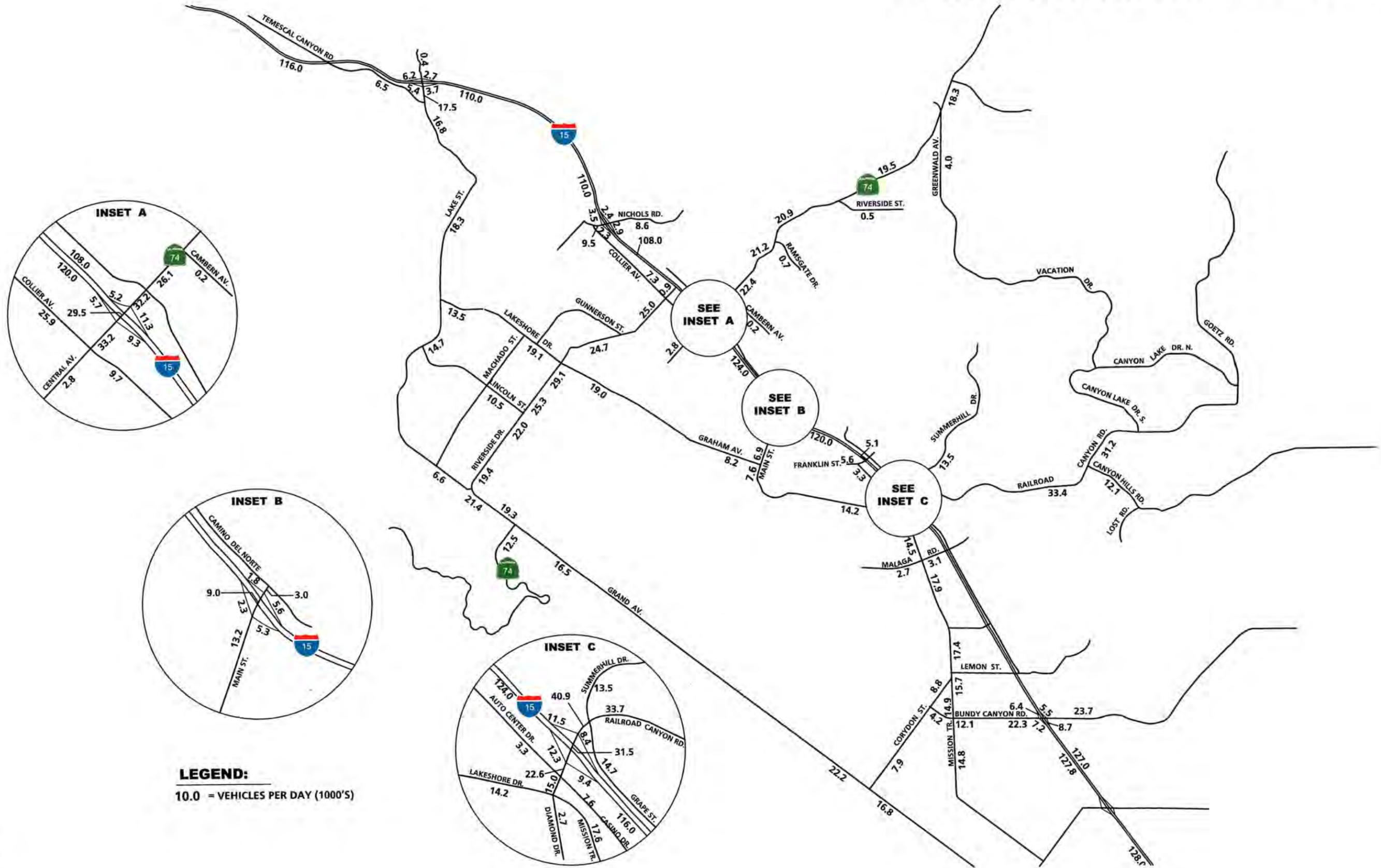
$$[\text{AM} + \text{PM Peak Hour (Approach + Exit Volume)}] / (7\%+8\%) = \text{Daily Leg Volume.}$$

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. Appendix "D" contains the daily traffic count data and the peak to daily relationship analysis.

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

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EXISTING (2005) AVERAGE DAILY TRAFFIC (ADT)



LEGEND:
 10.0 = VEHICLES PER DAY (1000'S)



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3.3 Existing Intersection Traffic Conditions

Thirty-three (37) existing intersections in and near the City of Lake Elsinore have been selected for analysis in coordination with City staff for this analysis. The analysis intersections are:

Lake Street (NS) at:

- I-15 Freeway Northbound Ramps (EW)
- I-15 Freeway Southbound Ramps (EW)
- Temescal Canyon Road (EW)
- Lakeshore Drive (EW)

Lakeshore Drive (NS) at:

- Riverside Drive (EW)

Lincoln Street (NS) at:

- Riverside Drive (EW)

I-15 Freeway Northbound Ramps (NS) at:

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

I-15 Freeway Southbound Ramps (NS) at:

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

Grand Avenue (NS) at:

- Riverside Drive (EW)
- Ortega Highway (EW)

Collier Avenue (NS) 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 Freeway Northbound Ramps (EW)
- I-15 Freeway Southbound Ramps (EW)
- Graham Avenue (EW)

Franklin Street (NS) at:

- Auto Center Drive (EW)

Summerhill Drive / Grape Street (NS)

- Railroad Canyon Road (EW)

Railroad Canyon Road (NS) at:

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

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

- I-15 Freeway 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 turning movement counts for the existing intersections are included as Appendix "E". All intersections were counted 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 on Exhibits 3-G and 3-H, respectively.

Existing peak hour traffic operations have been evaluated for the 37 study area intersections. The results of this analysis are summarized in Table 3-1, along with the existing intersection geometrics and traffic control devices at the analysis locations. Existing HCM calculation worksheets are provided in Appendix "F". As indicated on Table 3-1, for existing traffic conditions, all study area intersections are currently operating at Level of Service "D" or better during AM and PM peak hours except for the following intersections:

Lake Street (NS) at:

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

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EXHIBIT 3-H
EXISTING (2005) PM PEAK HOUR INTERSECTION VOLUMES

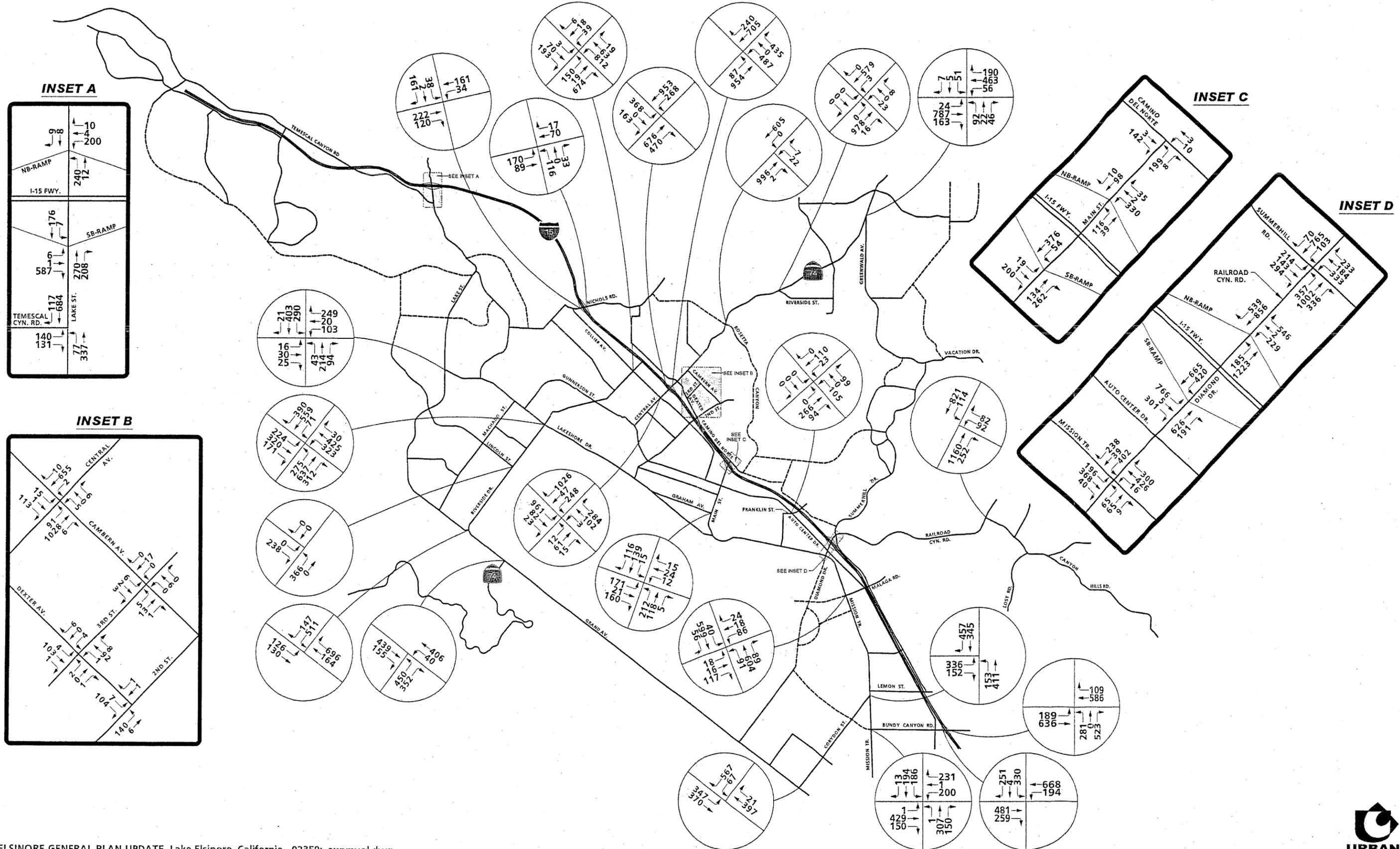


TABLE 3-1 (Page 1 of 2)

EXISTING CONDITIONS INTERSECTION ANALYSIS SUMMARY

INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE		
		NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM	
		L	T	R	L	T	R	L	T	R	L	T	R					
Lake St. (NS) at:																		
• I-15 NB Ramps (EW)	CSS	0.5	0.5	0	0	1	1	0	0	0	0	1	0	--4	18.8	F	C	
• I-15 SB Ramps (EW)	CSS	0	1	1	0.5	0.5	0	0.5	0.5	1	0	0	0	17.3	17.2	C	C	
• Temescal Canyon Rd. (EW)	CSS	0.5	0.5	0	0	1	1	0	1	0	0	0	0	92.6	94.8	F	F	
• Lakeshore Dr. (EW)	TS	1	2	1	2	2	1	0.5	1.5	0	1	1	2>	22.5	17.8	C	B	
Lakeshore Dr. (NS) at:																		
• Riverside Dr. (EW)	TS	1	2	0	1	2	1	1	2	1	1	1	1	38.5	50.4	D	D	
Lincoln St. (NS) at:																		
• Riverside Dr. (EW)	TS	0	0	0	1	0	1	1	1	0	0	1	1	26.7	--4	C	F	
I-15 NB Ramps (NS) at:																		
• Nichols St. (EW)	CSS	1	1	0	0	0	0	1	1	0	0	1	0	31.8	17.1	D	C	
• Central Ave. (EW)	TS	0.5	0.5	1	0	0	0	1	2	0	0	2	1	15.3	17.3	B	B	
• Bundy Canyon Rd. (EW)	TS	1	1	0	0	0	0	1	2	0	0	2	0	21.1	22.6	C	C	
I-15 SB Ramps (NS) at:																		
• Nichols St. (EW)	CSS	0	0	0	0.5	0.5	1	0	1	1>>	1	1	0	--4	12.7	F	B	
• Central Ave. (EW)	TS	0	0	0	0.5	0.5	1	0	2	0	1	2	0	12.5	19.4	B	B	
• Bundy Canyon Rd. (EW)	TS	0	0	0	1	1	0	0	2	0	1	2	0	21.3	19.7	C	B	
Riverside Dr. (NS) at:																		
• Grand Ave. (EW)	CSS	1	1	0	0	1	1	1	0	1	0	0	0	95.1	--4	F	F	
Grand Ave. (NS) at:																		
• Ortega Hwy. (EW)	AWS	0.5	0.5	0	0	1	1>>	1	0	1>>	0	0	0	--4	--4	F	F	
Collier Ave. (NS) at:																		
• Riverside Dr. (EW)	TS	1	1	0	1	1	1	0.5	0.5	1	0	1	0	--4	--4	F	F	
• Central Ave. (EW)	TS	1	1	1	1	1	0	1	1	0	2	1	2>	35.7	34.9	D	C	
Riverside St. (NS) at:																		
• SR-74 (EW)	CSS	1	0	1	0	0	0	0	2	0	1	2	0	21.9	37.5	C	E	
Greenwald Ave. (NS) at:																		
• SR-74 (EW)	TS	1	1	0	0	1	0	1	1	1	1	1	0	27.2	16.2	C	B	
Rosetta Canyon Dr. (EW) at:																		
• SR-74 (EW)	CSS	1	0	1	0	0	0	0	2	0	1	2	0	24.0	38.4	C	E	
Cambern Ave. (NS) at:																		
• SR-74 (EW)	TS	1	1	0	0.5	0.5	1	2	2	0	1	1	1	34.5	15.4	C	B	
• 3rd St. (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	9.2	9.2	A	A	
Dexter Ave. (NS) at:																		
• 3rd St. (EW)	CSS	0	1	0	0	1	0	0	1	0	1	0	1	9.4	9.7	A	A	
• 2nd St. (EW)	CSS	0	1	0	0	1	0	0.5	0.5	0	0	1	0	11.9	9.0	B	A	
Main St. (NS) at:																		
• Camino De Norte (EW)	CSS	1	0	1	0	0	0	0	1	1	1	1	0	9.0	9.5	A	A	
• I-15 NB Ramps (EW)	CSS	1	1	0	0	1	0	0	0	0	0.5	0.5	1	85.2	29.7	F	D	
• I-15 SB Ramps (EW)	CSS	0	1	1	1	1	0	0.5	1.5	0	0	0	0	25.4	17.7	D	C	
• Graham Ave. (EW)	CSS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	10.1	16.6	B	C	
Franklin St. (NS) at:																		
• Auto Center Dr. (EW)	CSS	0	1	1	0.5	0.5	0	0	0	0	1	0	1	10.8	13.8	B	B	
Summerhill Dr./Grape St. (NS)																		
• Railroad Canyon Rd. (EW)	TS	2	2	1	1	1	1>	2	2	0	1	3	0	52.4	70.3	D	E	
Railroad Canyon Rd. (NS) at:																		
• I-15 NB(EW)	TS	1	2	0	0	2	1	0	0	0	0.5	0.5	1	26.5	38.9	C	D	
• Canyon Hills Rd. (EW)	TS	1	3	1	1	3	0	0	0	0	2	0	1	25.3	11.8	C	B	
Diamond Dr(NS) at:																		
• I-15 SB(EW)	TS	0	2	1	1	2	0	1	1	0	0	0	0	36.4	47.1	D	D	
• Mission Trail-Lakeshore Dr. (EW)	TS	1	2	1	2	2	0	1	2	0	1	2	1	36.8	37.7	D	D	

TABLE 3-1 (Page 2 of 2)

EXISTING CONDITIONS INTERSECTION ANALYSIS SUMMARY

INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE		
		NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM	
		L	T	R	L	T	R	L	T	R	L	T	R					
Mission Trail (NS) at:																		
• Malaga Rd. (EW)	TS	1	2	0	1	2	0	1	1	1	1	1	2	0	17.3	24.4	B	C
• Corydon St. (EW)	TS	1	2	0	0	2	1>	1	0	1	0	0	0	0	16.4	15.2	B	B
• Bundy Canyon Rd. (EW)	TS	1	2	0	1	2	0	0	1	0	1	1	0	17.9	22.1	B	C	
Corydon St. (NS) at:																		
• Grand Ave. (EW)	TS	0	0	1	0.5	0.5	1>	1	1	0	1	1	0	15.3	20.9	B	C	

¹ 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;

² 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.

³ TS = Traffic Signal
 AWS = All Way Stop
 CSS = Cross St. Stop

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

- Not Applicable

Lincoln Street (NS) at:

- Riverside Drive (EW)

I-15 Freeway Southbound Ramps (NS) at:

- Nichols Street (EW)

Grand Avenue (NS) at:

- Riverside Drive (EW)
- Ortega Highway (EW)

Collier (NS) 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 Freeway Northbound Ramps (EW)

Summerhill Drive / Grape Street (NS) at:

- Railroad Canyon Road (EW)

Based on the Existing conditions operations analysis presented on Table 3-1, the intersections of Railroad Canyon Road at I-15 Freeway Northbound and Diamond Drive Ramps at I-15 Freeway Southbound operate at acceptable levels of service. 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 3-2 summarizes the queuing analysis for the intersections of Railroad Canyon Road at I-15 Freeway Northbound and Diamond Drive Ramps at I-15 Freeway Southbound during Existing conditions. The 95th percentile queue length has been selected for the queue calculation. As shown on Table 3-2, 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 if any stacking deficiencies exist.

As indicated on Table 3-2, 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 Freeway Northbound (EW)
 - Northbound Left
 - Northbound Through
 - Southbound Through
 - Southbound Right
 - Westbound Right

Diamond Drive Ramps (NS) at:

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

The stacking conditions at the interchange area are also shown on Exhibit 3-1. The queuing analysis indicates that extra storage may be needed at many locations, which will result in roadway widening.

TABLE 3-2

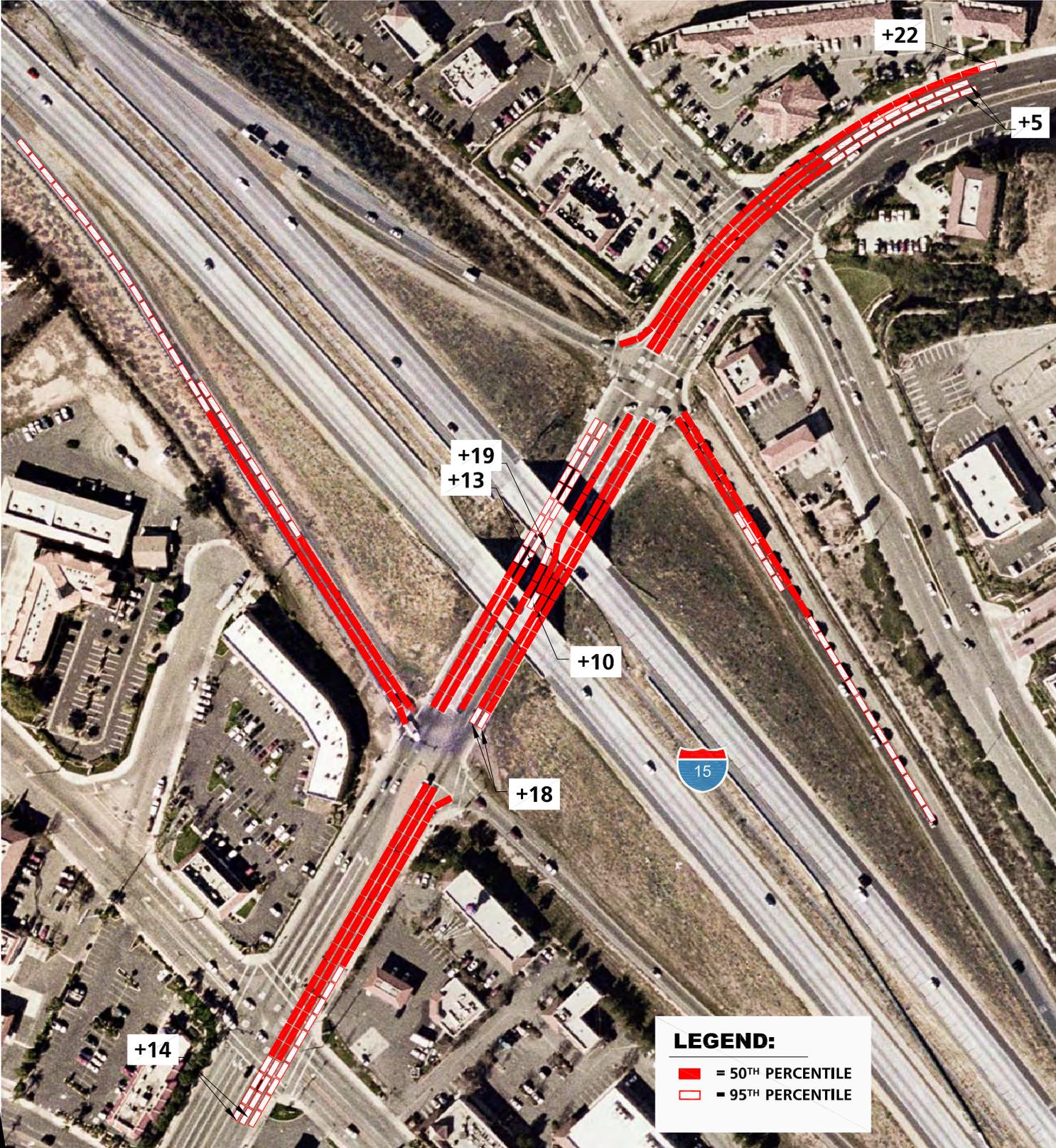
EXISTING CONDITIONS STACKING REQUIREMENTS FOR RAILROAD CANYON ROAD INTERCHANGE AREA

INTERSECTION	APPROACH	NO. OF LANES	HCM2000 95% VEHICLES (per lane)		PROVIDED STACKING DISTANCE ¹	ACCEPTABLE?	
			AM	PM		AM	PM
Railroad Canyon Road (NS) / I-15 Freeway Northbound (EW)	NBL	1	20	22	210	NO	NO
	NBT	2	10	38	460	YES	NO
	SBT	2	24	28	145	NO	NO
	SBR	1	50	50	165	NO	NO
	WBL/TL	1	12	16	645	YES	YES
	WBR	1	26	50	645	YES	NO
Diamond Drive Ramps (NS) / I-15 Freeway Southbound (EW)	NBT	2	18	34	340	NO	NO
	NBR	1	22	16	340	NO	NO
	SBL	1	44	46	245	NO	NO
	SBT	2	14	18	475	YES	YES
	EBL	1	22	34	475	NO	NO
	EBT/TR	1	40	68	475	NO	NO

1 Stacking distance based on turn lane length or distance to next (upstream) traffic signal for through movements.

2 Required stacking distance based on 95th percentile queue length (2 x average) as reported on HCM worksheets.

EXHIBIT 3-1
**DIAMOND DRIVE/I-15 FREEWAY INTERCHANGE
 STACKING REQUIREMENTS**



3.4 Existing Intersection Traffic Signal Warrant Analysis

Peak hour traffic signal warrant analysis has been completed and indicates that the following intersections appear to currently warrant a traffic signal (see Appendix "G"):

Lake Street (NS) at:

- Temescal Canyon Road (EW)

Grand Avenue (NS) at:

- Ortega Highway (EW)

Per information obtained from the City, the signal and widening plans have been designed for the intersection of Grand Avenue at Ortega Highway and construction will begin after City receives permit from Caltrans. For the intersection of Lake Street at Temescal Canyon Road, signal plans will be prepared in the near future.

3.5 Existing Transit Services

SR-74 north of the I-15 Freeway is currently served by Riverside Transit Agency (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. Exhibit 3-J illustrates the current Riverside Transit Agency (RTA) system served in the Lake Elsinore area.

3.6 Transportation Planning Context

Exhibit 3-B illustrates the Currently Adopted General Plan Circulation Element and Exhibit 3-C illustrates the cross-sections in the City of Lake Elsinore. As illustrated on Exhibit 3-C, the roadway cross-sections lane configurations within the City of Lake Elsinore range from two (2) lane undivided collectors to six (6)

EXHIBIT 3-J
EXISTING TRANSIT SYSTEM



SOURCE: RIVERSIDE TRANSIT AGENCY



lane divided arterial highways. The transportation planning context also includes ongoing regional planning efforts, including the Regional Transportation Plan, the Riverside County Integrated Project, and the Congestion Management Program.

3.6.1 The Regional Transportation Plan

The Regional Transportation Plan (RTP) is a component of the Regional Comprehensive Plan and Guide prepared by the Southern California Association of Governments (SCAG) to address regional issues, goals, objectives, and policies for the Southern California region into the early part of the 21st century. The RTP, which SCAG periodically updates to address changing conditions in the Southland, has been developed with active participation from local agencies throughout the region, elected officials, the business community, community groups, private institutions, and private citizens. The RTP sets broad goals for the region and provides strategies to reduce problems related to congestion and mobility.

3.6.2 Riverside County Integrated Project

The purpose of the RCIP is to integrate the processes of planning land use, transportation improvements and preserving habitat 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, will provide a good quality of life for future residents, and will minimize environmental and community impacts, including impacts to sensitive habitats and endangered species.

The most current RCIP network is depicted on Exhibit 3-D and the RCIP cross-sections are illustrated on Exhibit 3-E. Comparing the City's General Plan with the RCIP network, the City's General Plan does not quite conform to the latest RCIP network, which Riverside County Staff

has directed to be used for all analysis in lieu of the currently adopted Riverside County General Plan. For the cross-sections, the City in general is consistent with the County. However, the County includes more detailed categories. For instance, for arterial highway, the County has Urban Arterial Highway, Arterial Highway, and Mountain Arterial categories, and the City only has categories of Urban Arterial Highway and Urban Arterial – State Highway. Table 3-3 indicates the differences between the City and County Circulation Elements.

3.6.3 Congestion Management Program

The Riverside County Congestion Management Program (CMP) is updated every five years in accordance with Proposition 111, passed in June 1990. The CMP was established in the State of California to more directly link land use, transportation and air quality and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds, alleviate traffic congestion and related impacts, and improve air quality.

The Circulation Element describes how the future transportation system will function. This is important for congestion management, since deficiencies along the CMP system must be mitigated when they occur. The ability to address such deficiencies now, instead of when they occur, is critical. Understanding the reason for these deficiencies and identifying ways to reduce the impact of future growth and development along a critical CMP corridor will conserve scarce funding resources and help target those resources appropriately.

The Riverside County CMP system is shown on Exhibit 3-K. The I-15 Freeway and SR-74 are included on the CMP roadway system in the study area. For principal arterials, the CMP standard of LOS “E” or better is less stringent than the City of Lake Elsinore standard of LOS “D” or better, therefore, additional analysis at these locations is unnecessary.

TABLE 3-3

ROADWAY NUMBER OF LANE DESIGNATION COMPARISON*
(Currently Adopted GP vs. RCIP)

Roadway	City of Lake Elsinore Currently Adopted General Plan Circulation Element		Riverside County (RCIP) Currently Adopted Network	
	Functional Classification	# Lanes	Functional Classification	# Lanes
Nichols Rd. South of I-15	Urban Arterial	6D	Expressway	6D to 8D
Coal Ave east of Lake St to Baker St.	Urban Arterial	6D	Arterial Highway	4D
Mission Trail between Malaga and Palomar	Urban Arterial	6D	Arterial Highway	4D
Nichols Rd Extension	Urban Arterial	6D	not exist	0
Riverside Dr.	Urban Arterial	6D	Arterial Highway	4D
Grand Ave. from Machado St. to Corydon St.	Urban Arterial	6D	Arterial Highway	4D
Grand Ave. from Corydon St. to Clinton Keith Rd.	Urban Arterial	6D	Secondary Highway	4U
Collier Ave. between Riverside Dr to Central Ave.	Urban Arterial	6D	Major Highway	4D
SR-74, north of Ramsgate Dr.	Urban Arterial	6D	Expressway	6D to 8D
Railroad Canyon Rd, west of Canyon Hills Rd.	Urban Arterial	6D	Arterial Highway	4D
Lake St., north of lakeshore Dr.	Urban Arterial	6D	Arterial Highway	4D
Lakeshore Dr. north of Riverside Dr.	Urban Arterial	6D	Arterial Highway	4D
Lakeshore Dr. south of Riverside Dr.	Urban Arterial	6D	Secondary Highway	4U
Estella Mountain Rd.	Major / Secondary	4D	not exist	0
Indian Truck Trail	Major Highway	4D	Secondary Highway	4U
Lincoln St.	Major Highway	4D	Secondary Highway	4U
Baxter Rd.	Major Highway	4D	Secondary Highway	4U
SR-74 west of Grand Ave.	Major Highway	4D	Mountain Arterial	2U to 4U
Riverside St. west of Steel Valley Rd.	Major Highway	4D	Secondary Highway	4U
Lakeshore Dr. between Graham Ave. to Main St.	Major Highway	4D	Arterial Highway	4D
Ethanac Rd.	Major Highway	4D	Expressway	6D to 8D
Ramsgate Dr. between El Toro Rd and SR-74	Major Highway	4D	Urban Arterial	6D
Lost Rd.	Major Highway	4D	Collector	2U
Stoneman St.	Major Highway	4D	not exist	0
Inland Valley Rd.	Major Highway	4D	not exist	0
Corydon St.	Major Highway	4D	Arterial Highway	4D
De Palma Rd.	Secondary Highway	4D	Major Highway	4D
Baker St., west of Nichols Rd.	Secondary Highway	4D	not exist	0
Baker St., east of Nichols Rd.	Secondary Highway	4D	not exist	0
Summerhill Dr. north of La Strada Dr.	Secondary Highway	4D	not exist	0
El Toro Rd.	Secondary Highway	4D	Mountain Arterial	2U to 4U
Wasson Canyon Rd.	Secondary Highway	4D	Collector	2U
Malaga Rd.	Secondary Highway	4D	not exist	0
Palomar St.	Secondary Highway	4D	not exist	0
Main St.	One Way Secondary	2U	Major Highway	4D
Collector Rd.(no name) off El Toro Rd.	Collector	2U	not exist	0

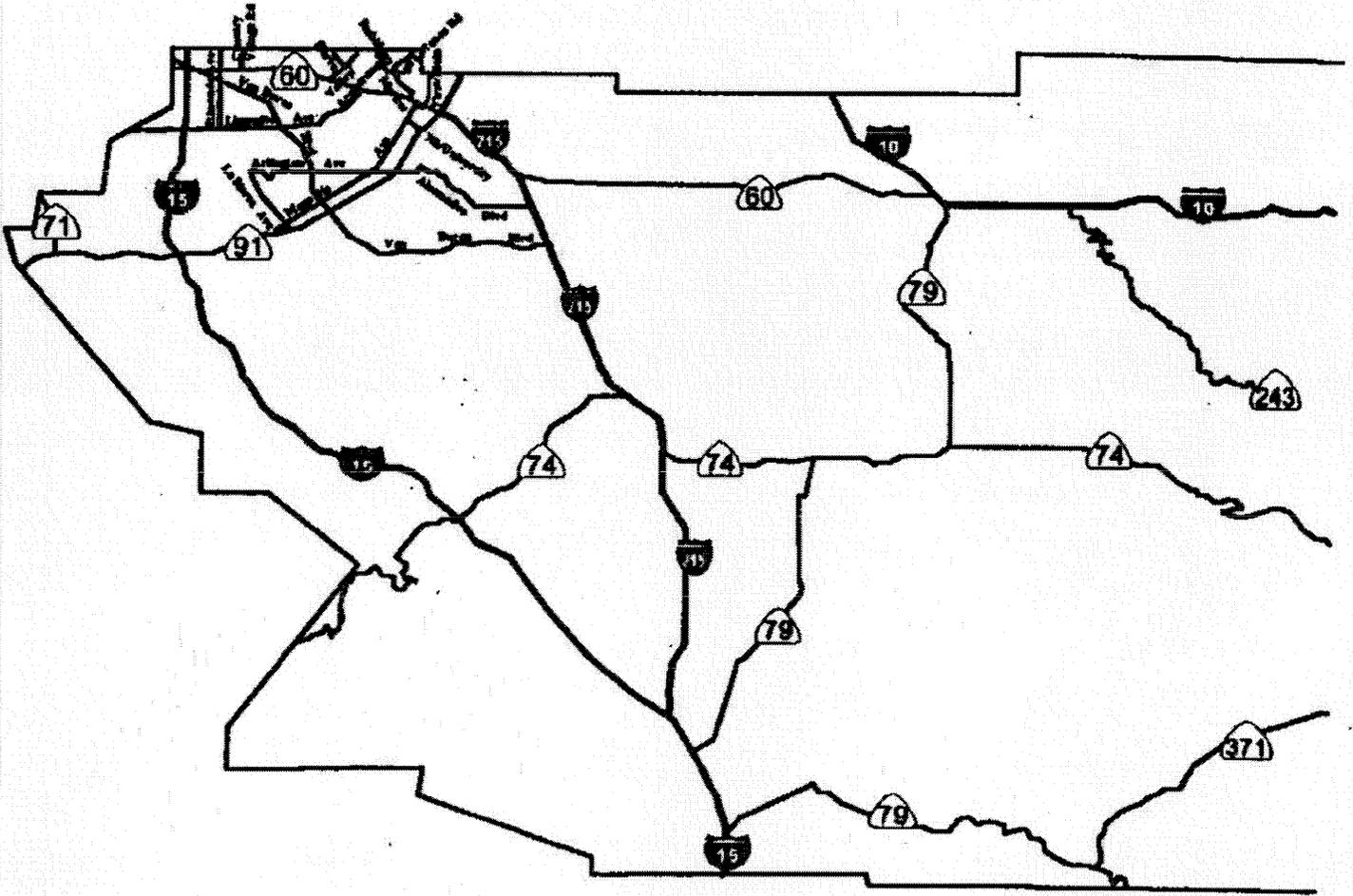
4 = Number of Lanes

D = Divided

U = Undivided

*The comparison is conducted only for Lake Elsinore SOI area.

EXHIBIT 3-K
**RIVERSIDE COUNTY
CONGESTION MANAGEMENT PROGRAM (CMP) SYSTEM**



LEGEND:

- Principal Arterials on CMP System
- Highways on CMP System
- Interstates on CMP System

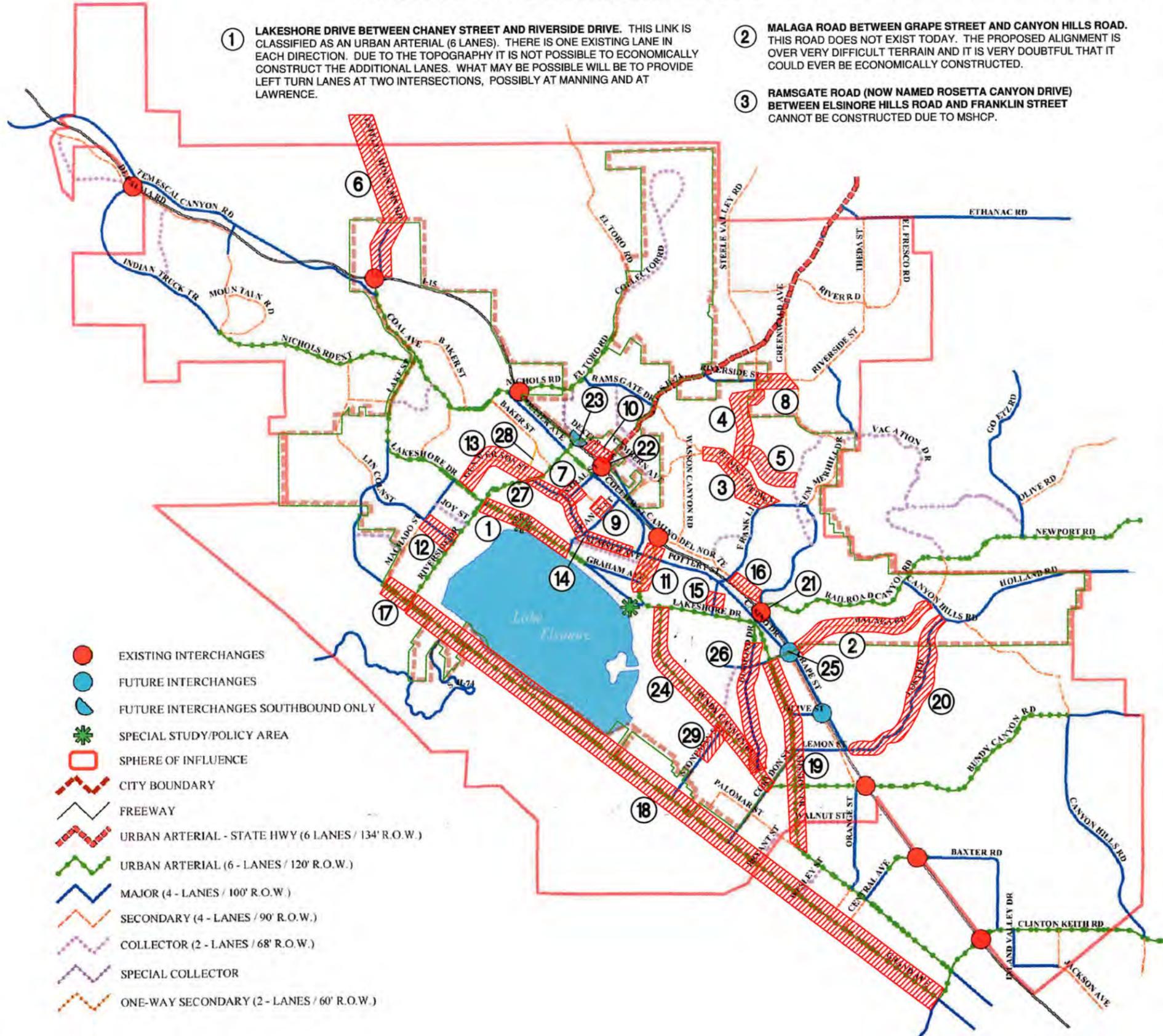


3.6.4 Identified Challenges Regarding the Currently Adopted General Plan Circulation Element

The City Engineer has indicated that the Currently Adopted General Plan Circulation Element contains highway network links that may be very difficult to build and/or may be economically unfeasible to finance. The issue links and comments on the issues related to these links along with other circulation comments have been identified on Exhibit 3-L. The exhibit has been reviewed and refined by City staff.

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IDENTIFIED CHALLENGES FOR THE CITY OF LAKE ELSINORE CURRENTLY ADOPTED CIRCULATION ELEMENT



1 LAKESHORE DRIVE BETWEEN CHANEY STREET AND RIVERSIDE DRIVE. THIS LINK IS CLASSIFIED AS AN URBAN ARTERIAL (6 LANES). THERE IS ONE EXISTING LANE IN EACH DIRECTION. DUE TO THE TOPOGRAPHY IT IS NOT POSSIBLE TO ECONOMICALLY CONSTRUCT THE ADDITIONAL LANES. WHAT MAY BE POSSIBLE WILL BE TO PROVIDE LEFT TURN LANES AT TWO INTERSECTIONS, POSSIBLY AT MANNING AND AT LAWRENCE.

2 MALAGA ROAD BETWEEN GRAPE STREET AND CANYON HILLS ROAD. THIS ROAD DOES NOT EXIST TODAY. THE PROPOSED ALIGNMENT IS OVER VERY DIFFICULT TERRAIN AND IT IS VERY DOUBTFUL THAT IT COULD EVER BE ECONOMICALLY CONSTRUCTED.

3 RAMSGATE ROAD (NOW NAMED ROSETTA CANYON DRIVE) BETWEEN ELSINORE HILLS ROAD AND FRANKLIN STREET CANNOT BE CONSTRUCTED DUE TO MSHCP.

4 ELSINORE HILL ROAD FROM SOUTH OF RIVERSIDE STREET TO RAMSGATE DRIVE CANNOT BE CONSTRUCTED DUE TO MSHCP.

5 UNNAMED COLLECTOR ROAD BETWEEN ELSINORE HILLS ROAD AND BELLA VISTA CANNOT BE CONSTRUCTED DUE TO MSHCP.

6 ESTELLA MOUNTAIN ROAD NORTH OF I-15.

7 CENTRAL BETWEEN PASADENA AND STRICKLAND. CENTRAL CANNOT BE CONSTRUCTED OVER THE OUTFLOW CHANNEL.

8 RIVERSIDE STREET BETWEEN WASSON CANYON CREEK AND GREENWALD. THE COST OF BRIDGING THE CREEK MAY NOT BE JUSTIFIED REGARDING TRAFFIC BENEFITS.

9 PASADENA STREET FROM 3RD TO CHANEY. MAY BE DIFFICULT TO EXTEND TO CHANEY DUE TO SCHOOL DISTRICT OFFICES. OFF-SET T-INTERSECTIONS MIGHT BE FEASIBLE; HOWEVER, ALL RIGHT-OF-WAY AND CONSTRUCTION BURDEN WILL FALL ON WHOM EVER DEVELOPS.

10 DEXTER AVENUE FROM CENTRAL TO 500' NORTH WILL NOT EXIST WHEN THE INTERCHANGE IS RECONSTRUCTED.

11 THE SPRING STREET/CHESTNUT COUPLER AROUND MAIN STREET NEEDS TO BE ANALYZED ABOUT ECONOMICAL FEASIBILITY. SPRING STREET IS NECESSARY AND BASICALLY FUNCTIONS AS A COLLECTOR ROAD. IT IS THE TRUCK ROUTE AROUND OLD DOWNTOWN. MAIN STREET IS 2 LANES TOTAL IN THE DOWNTOWN AREA AND WILL NOT BE WIDENED TO 4 LANES. CHESTNUT IS A LOCAL RESIDENTIAL STREET WITH OLDER HOUSING FRONTING THE STREET. MAIN STREET WILL NEED TO BE WIDENED TO AT LEAST 4 LANES AS IT NEARS THE I-15.

OTHER EXISTING STREETS WITH WIDENING CHALLENGES:

- 12** LINCOLN STREET BETWEEN MACHADO AND RIVERSIDE DRIVE.
- 13** GUNNERSON BETWEEN LAKESHORE AND RIVERSIDE DRIVE.
- 14** STRICKLAND, SUMNER, POTTERY BETWEEN RIVERSIDE DRIVE AND 6TH STREET.
- 15** 6TH STREET BETWEEN PARK AND MILL.
- 16** CANYON ESTATES DRIVE BETWEEN SUMMERHILL AND FRANKLIN.
- 17** GRAND BETWEEN RIVERSIDE AND MACHADO.

MAJOR DIFFERENCES BETWEEN CITY AND COUNTY CIRCULATION ELEMENTS:

- 18** GRAND AVENUE BETWEEN RIVERSIDE DRIVE AND CLINTON KEITH ROAD IS 6 LANES ON CITY GP AND 4 LANES ON COUNTY.
- 19** MISSION TRAIL BETWEEN MALAGA AND PALOMAR IS 6 LANES ON CITY GP AND 4 LANES ON COUNTY.
- 20** LOST ROAD IS 4 LANES ON CITY GP AND 2 LANES ON COUNTY.

INTERCHANGE UPGRADES:

- 21** RAILROAD CANYON/DIAMOND AT I-15. PSR COMPLETED. PR (PA/ED) UNDERWAY.
- 22** CENTRAL (SR-74) AT I-15. DRAFT PSR BEING CIRCULATED.

OTHER COMMENTS:

- 23** RIVERSIDE DRIVE IS SHOWN AS A HALF DIAMOND INTERCHANGE AT I-15. THIS WILL NOT HAPPEN. HOWEVER, A BRIDGE ACROSS THE I-15 AT RIVERSIDE WILL OCCUR IN THE FUTURE.
- 24** BUNDY CANYON ROAD BETWEEN LAKESHORE DRIVE AND DIAMOND DRIVE CANNOT BE BUILT DUE TO ENVIRONMENTAL CONSTRAINTS.
- 25** THE HOV INTERCHANGE AT MALAGA ROAD AND I-15 CANNOT BE BUILT DUE TO ITS PROXIMITY TO RAILROAD CANYON ROAD.
- 26** DIAMOND DRIVE SOUTH OF LAKESHORE DRIVE/MISSION TRAIL IS 4-LANE MAJOR ROAD.
- 27** COUNTRY CLUB HEIGHTS IS VERY HILLY AND REGULAR STREET STANDARDS ARE DIFFICULT TO ADMINISTER. SPECIAL STREET STANDARDS SHOULD BE DEVELOPED FOR THIS AREA.
- 28** THE EXTENSION OF BAKER TO RIVERSIDE DRIVE WILL BE DIFFICULT IF NOT IMPOSSIBLE TO CONNECT DUE TO PONDS AND OTHER HABITAT. IT MAY BE POSSIBLE TO CONNECT TO GUNNERSON, IF JUSTIFIED BY MODEL VOLUMES.



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4.0 FUTURE TRAFFIC VOLUME FORECAST

This section of the report presents the traffic volume forecast for the Preferred General Plan scenario, Alternative 1 General Plan scenario and Alternative 2 General Plan scenario. As described in Section 1.3, the future traffic volume forecasts are generated based on WRSATM model runs. 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 Ramona Mobility Group study area, and the Toscana Study area within Riverside County. WRSATM has been derived directly from the CTP traffic model maintained by SANBAG/SCAG and specifically the version used in the RCIP process. The procedures of the WRSATM have been intensively updated in the course of this work effort in order to reflect the most current model data for City of Lake Elsinore. The socio-economic data provided by Mooney, Jones & Stokes and the proposed draft circulation map illustrated on Exhibit ES-A are the direct input for the model runs.

Post-processing has been conducted to generate the intersection turning movement volumes in accordance with the National Cooperative Highway Research Program (NCHRP Report 255) methodology. 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 The Ramsgate Specific Plan Traffic Study, The Village Traffic Impact Study, Back Basin Specific Plan Traffic Study, and The I-/SR-74 Interchange Project Report Traffic Impact Study. Finally, traffic volume flow conservation checks and manual adjustments have been performed as necessary to ensure the reasonableness of traffic flow, especially at the interchange areas.

4.1 Preferred General Plan Traffic Volume Forecast

For the Preferred General Plan conditions, Appendix “H” includes the daily volume refinement process. Appendix “I” includes all the worksheets for the intersection turning movement volume refinement process. Appendix “J”

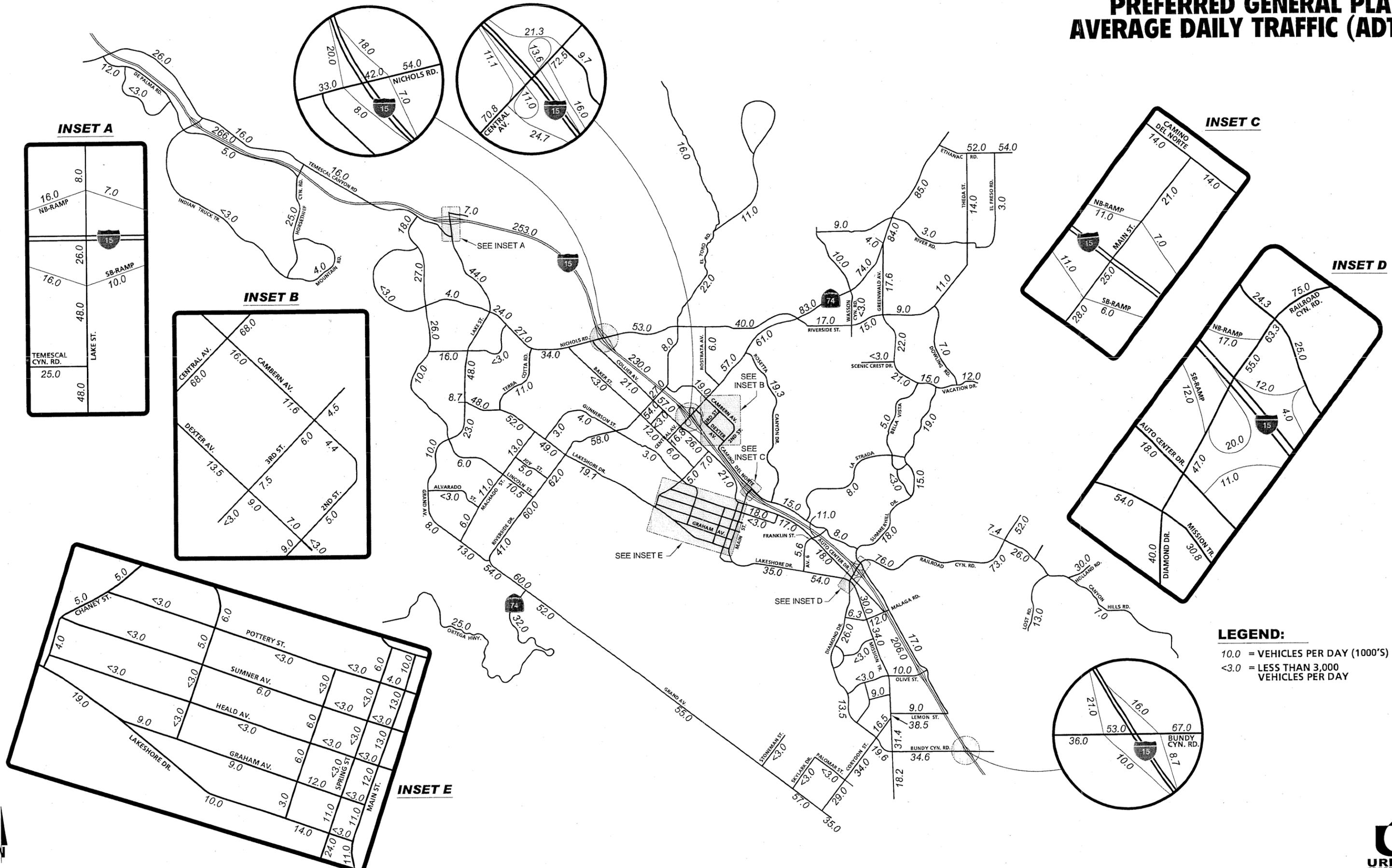
includes the final peak hour to ADT ratio worksheets for each study intersection. The refined future daily traffic volumes for Preferred General Plan conditions are presented on Exhibit 4-A. For some of the segments which are not part of the analysis area and also have no available existing volumes, the Preferred General Plan ADT volumes are estimated based on the raw model forecast data and the flow conservation check with the nearby roadway segments. Exhibit 4-B and Exhibit 4-C illustrate the AM and PM peak hour intersection volumes for the Preferred General Plan conditions, respectively. The highest daily volume on an arterial roadway occurs along Central Avenue (SR-74), which is projected to carry volumes as high as 85,000 vehicles per day (VPD). This occurs north of the extension of Nichols Road / Riverside Street. The recommended alignment and connection of Nichols Road to Riverside Street to Theda Street provides a parallel route to SR-74 and minimizes potential bottlenecks in this corridor. Other arterial roadways projected to carry substantial traffic volumes include:

- Railroad Canyon Road (76,000 VPD)
- Riverside Drive (62,000 VPD)
- Grand Avenue (60,000 VPD)
- Bundy Canyon Road (67,000 VPD)

4.2 Alternative 1 General Plan Traffic Volume Forecast

For Alternative 1 General Plan conditions, Appendix “K” includes the daily volume refinement process. Appendix “L” includes all the worksheets for the intersection turning movement volume refinement process. Appendix “M” includes the final peak hour to ADT ratio worksheets for each study intersection. The refined future daily traffic volumes for Preferred General Plan conditions are presented on Exhibit 4-D. Exhibit 4-E and Exhibit 4-F illustrate the AM and PM peak hour intersection volumes for the Alternative 1 General Plan conditions, respectively. The maximum observed traffic volume (on SR-74) increases from 85,000 VPD to 88,000 VPD, an increase of 3,000 VPD or 3.5%. However, the

EXHIBIT 4-A
**PREFERRED GENERAL PLAN
 AVERAGE DAILY TRAFFIC (ADT)**



LEGEND:
 10.0 = VEHICLES PER DAY (1000'S)
 <3.0 = LESS THAN 3,000
 VEHICLES PER DAY



EXHIBIT 4-B
**PREFERRED GENERAL PLAN
 AM PEAK HOUR INTERSECTION VOLUMES**

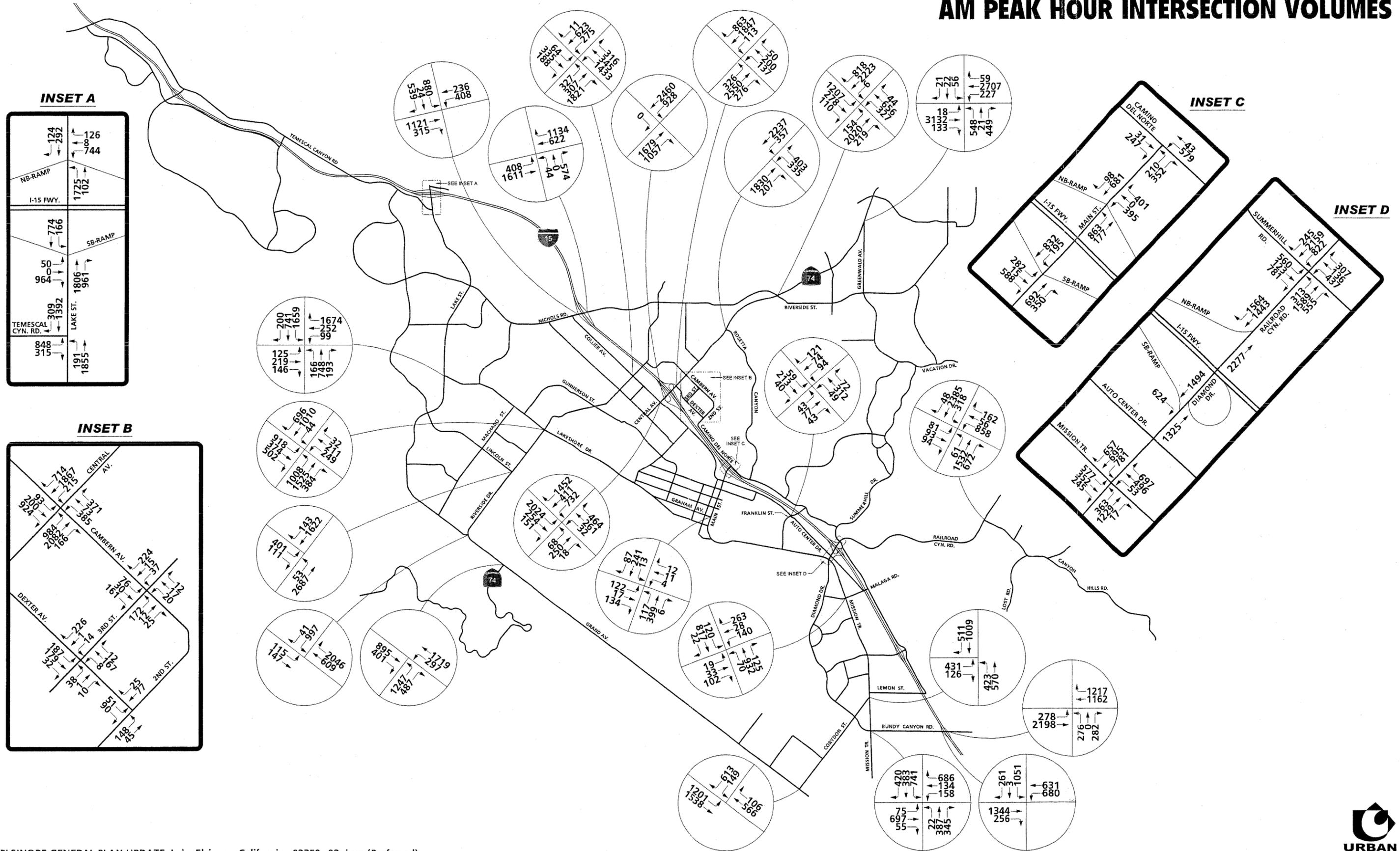
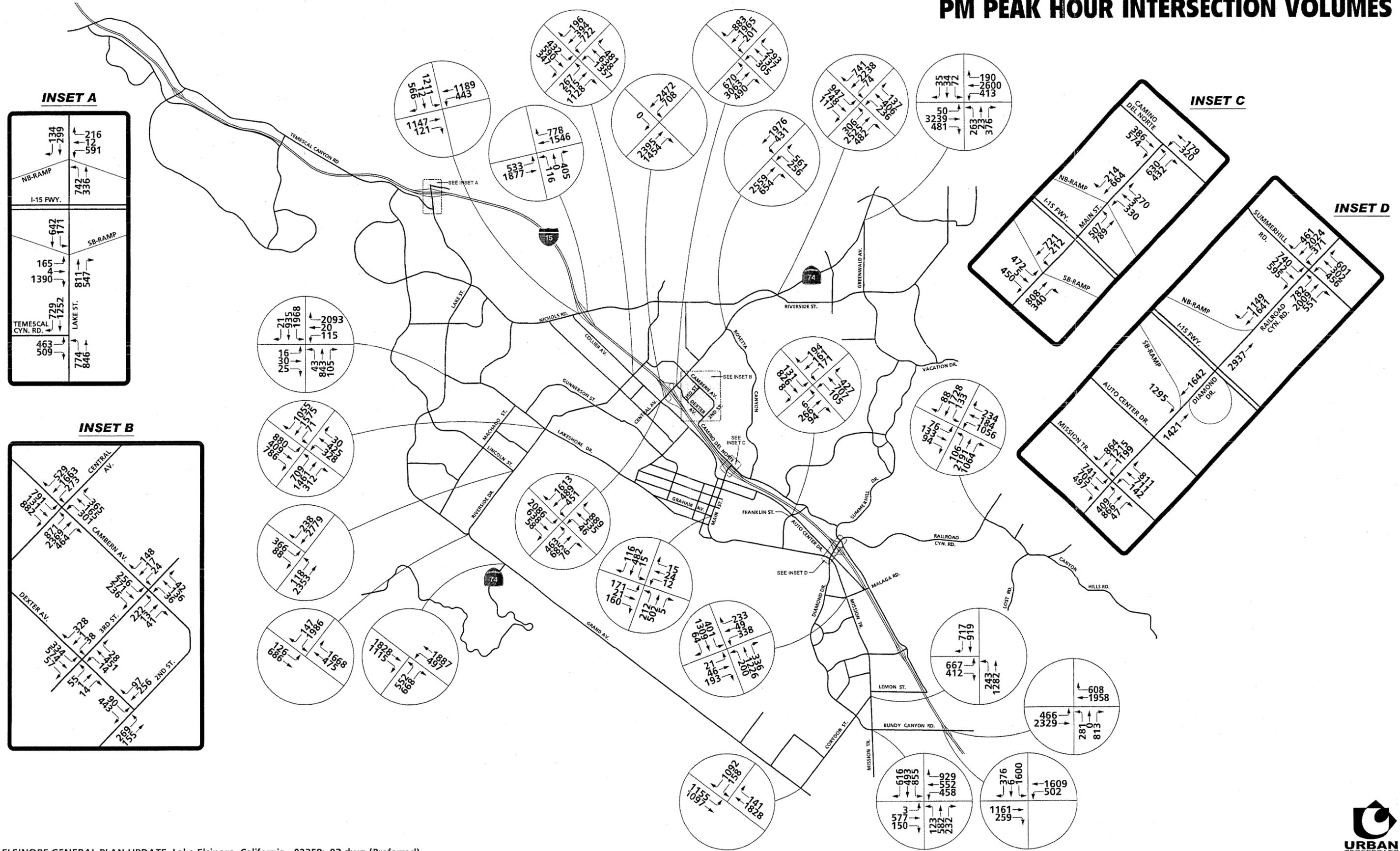
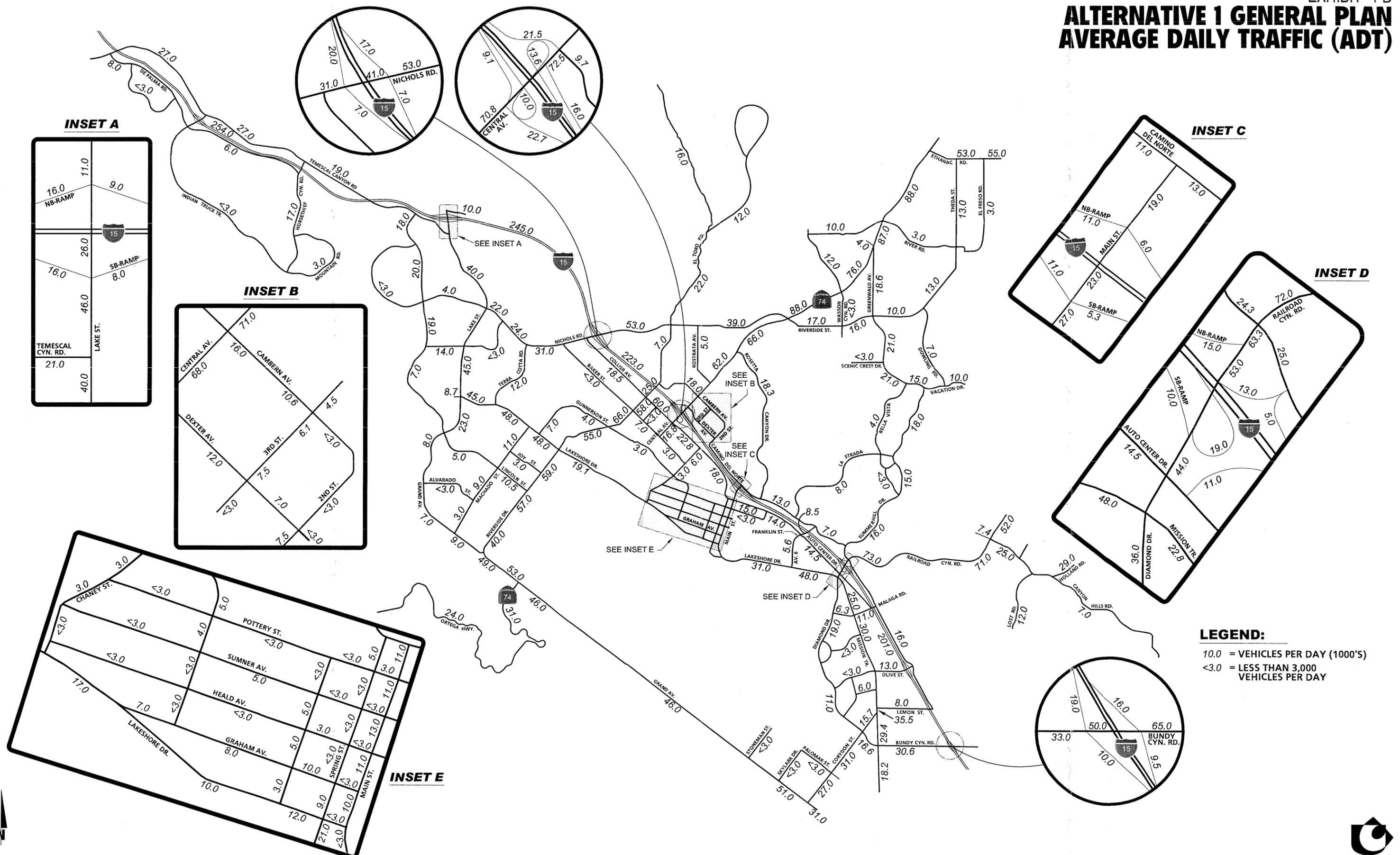


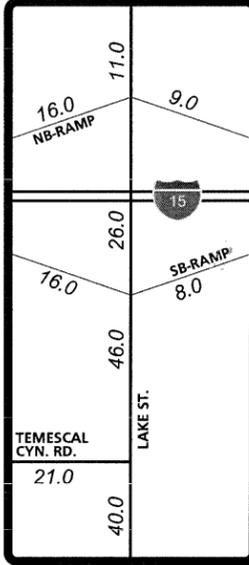
EXHIBIT 4-C
**PREFERRED GENERAL PLAN
 PM PEAK HOUR INTERSECTION VOLUMES**



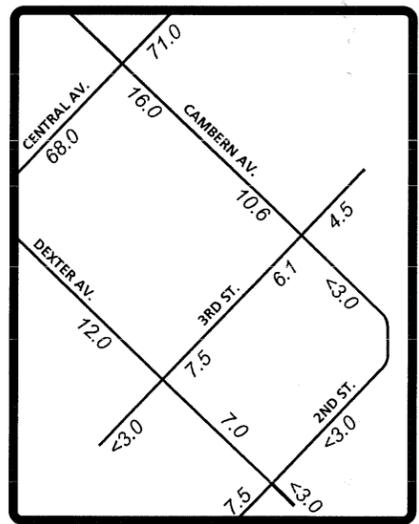
ALTERNATIVE 1 GENERAL PLAN AVERAGE DAILY TRAFFIC (ADT)



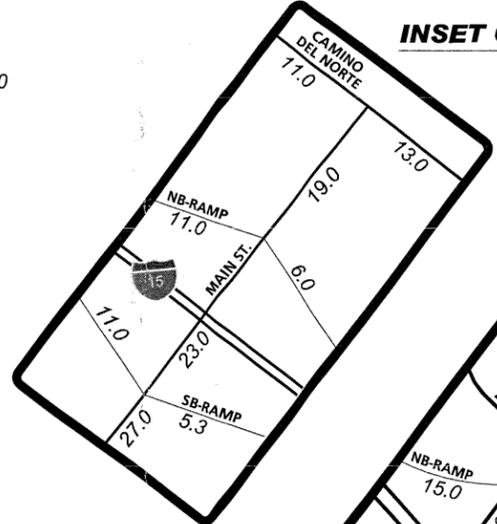
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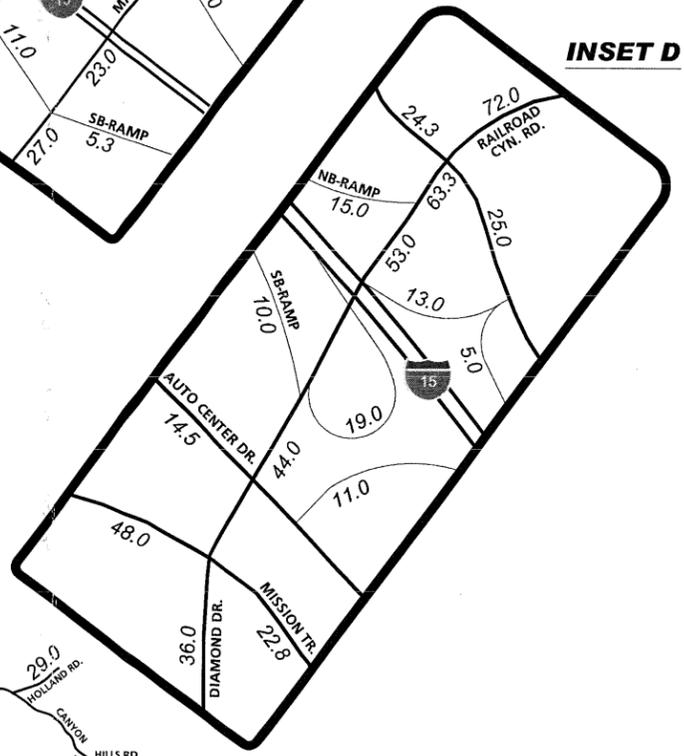
INSET B



INSET C



INSET D



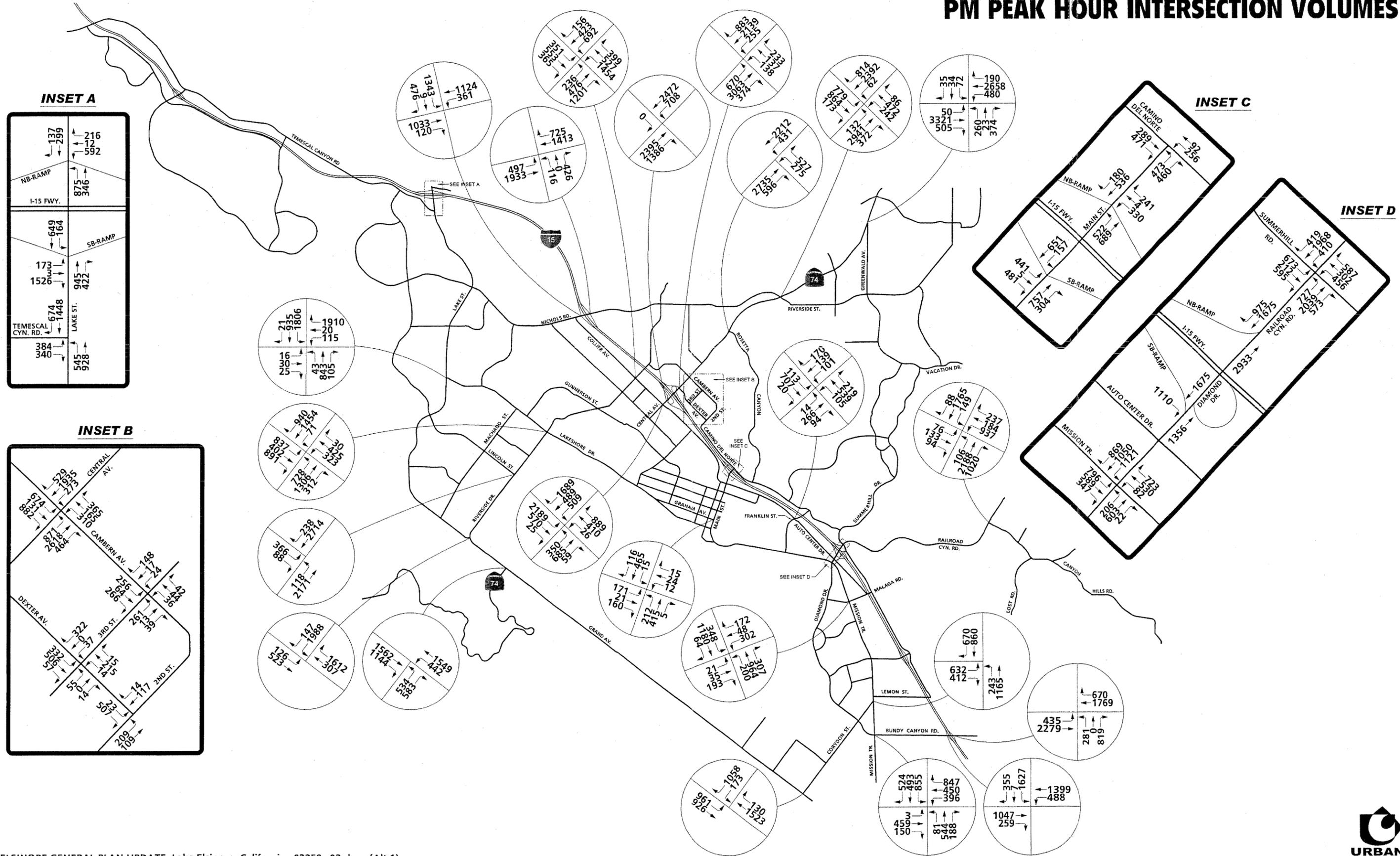
INSET E



LEGEND:
 10.0 = VEHICLES PER DAY (1000'S)
 <3.0 = LESS THAN 3,000 VEHICLES PER DAY



EXHIBIT 4-F
**ALTERNATIVE 1 GENERAL PLAN
 PM PEAK HOUR INTERSECTION VOLUMES**



maximum projected daily traffic volumes on some heavily traveled roadways (Bundy Canyon Road, Railroad Canyon Road, Riverside Drive, and Grand Avenue) actually decrease by 2,000-3,000 VPD.

4.3 Alternative 2 General Plan Traffic Volume Forecast

For Alternative 2 General Plan conditions, Appendix “N” includes the daily volume refinement process. Appendix “O” includes all the worksheets for the intersection turning movement volume refinement process. Appendix “P” includes the worksheets for final peak hour to ADT ratio for each study intersection. The refined future daily traffic volumes for Preferred General Plan conditions are presented on Exhibit 4-G. Exhibit 4-H and Exhibit 4-I illustrate the AM and PM peak hour intersection volumes for the Alternative 2 General Plan conditions, respectively. In general, daily traffic volumes decrease slightly, with the volumes on SR-74 decreasing to a maximum volume of 82,000 VPD north of Greenwald Avenue.

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EXHIBIT 4-G
GENERAL PLAN ALTERNATIVE 2 (2030)
AVERAGE DAILY TRAFFIC (ADT)

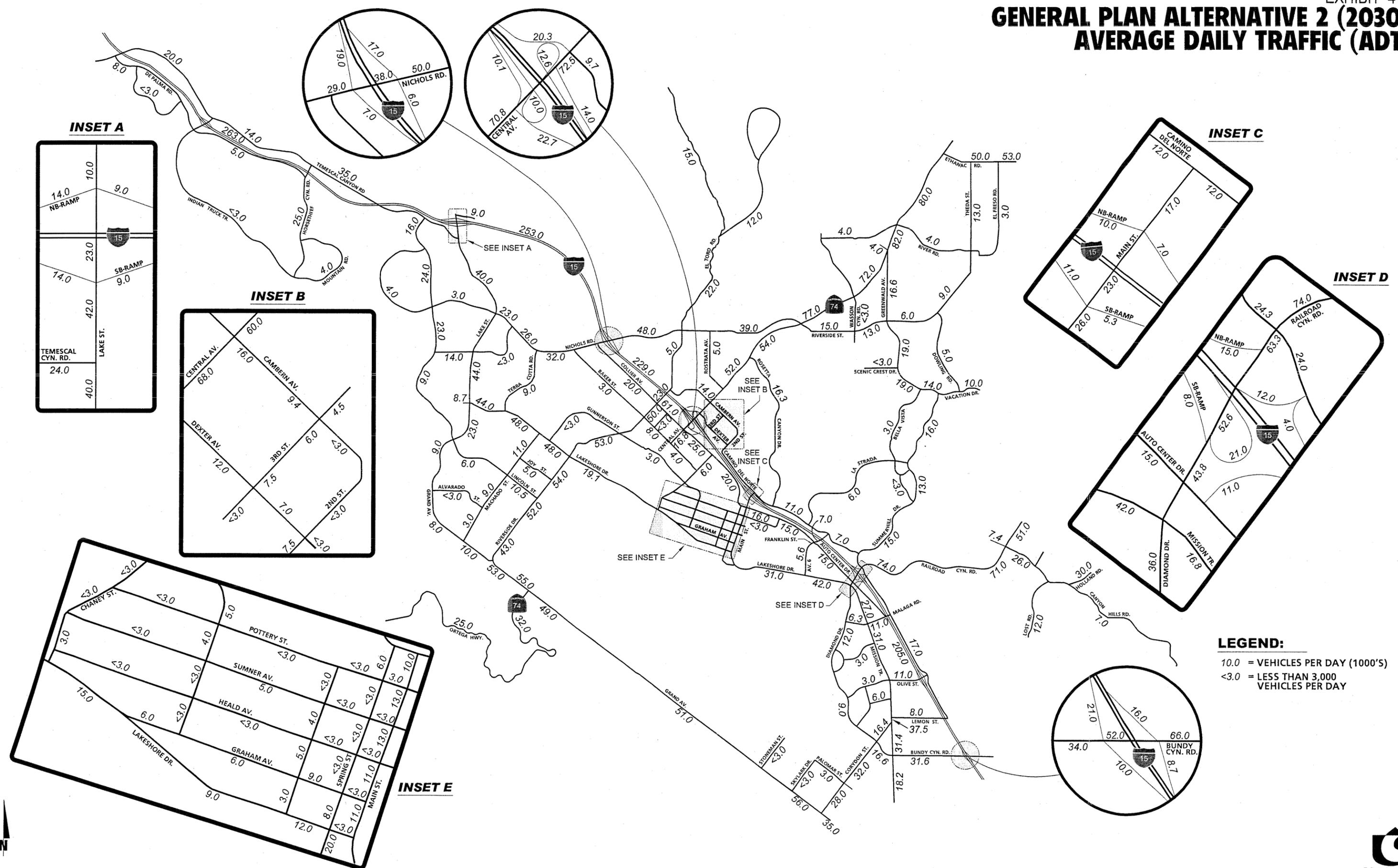
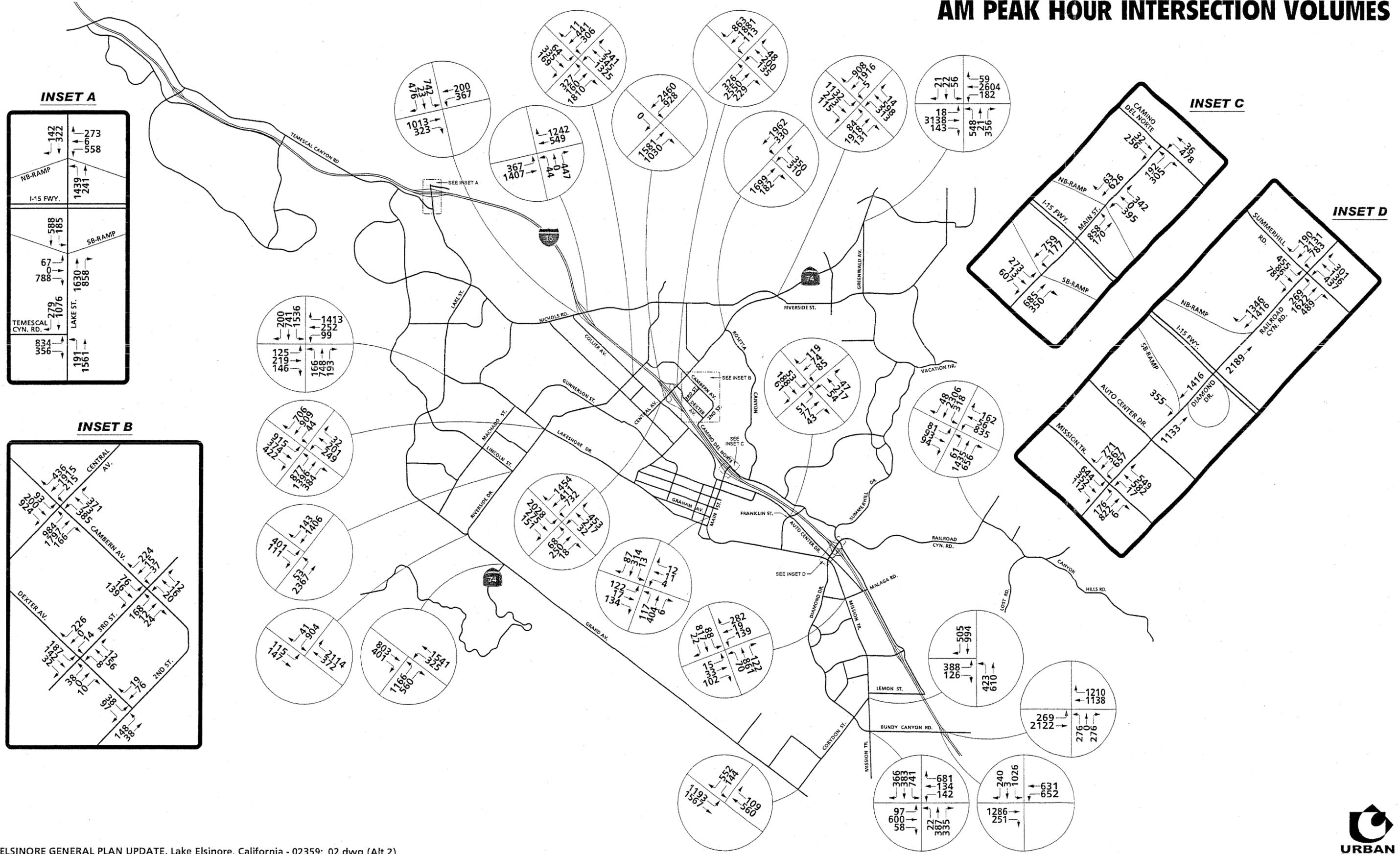
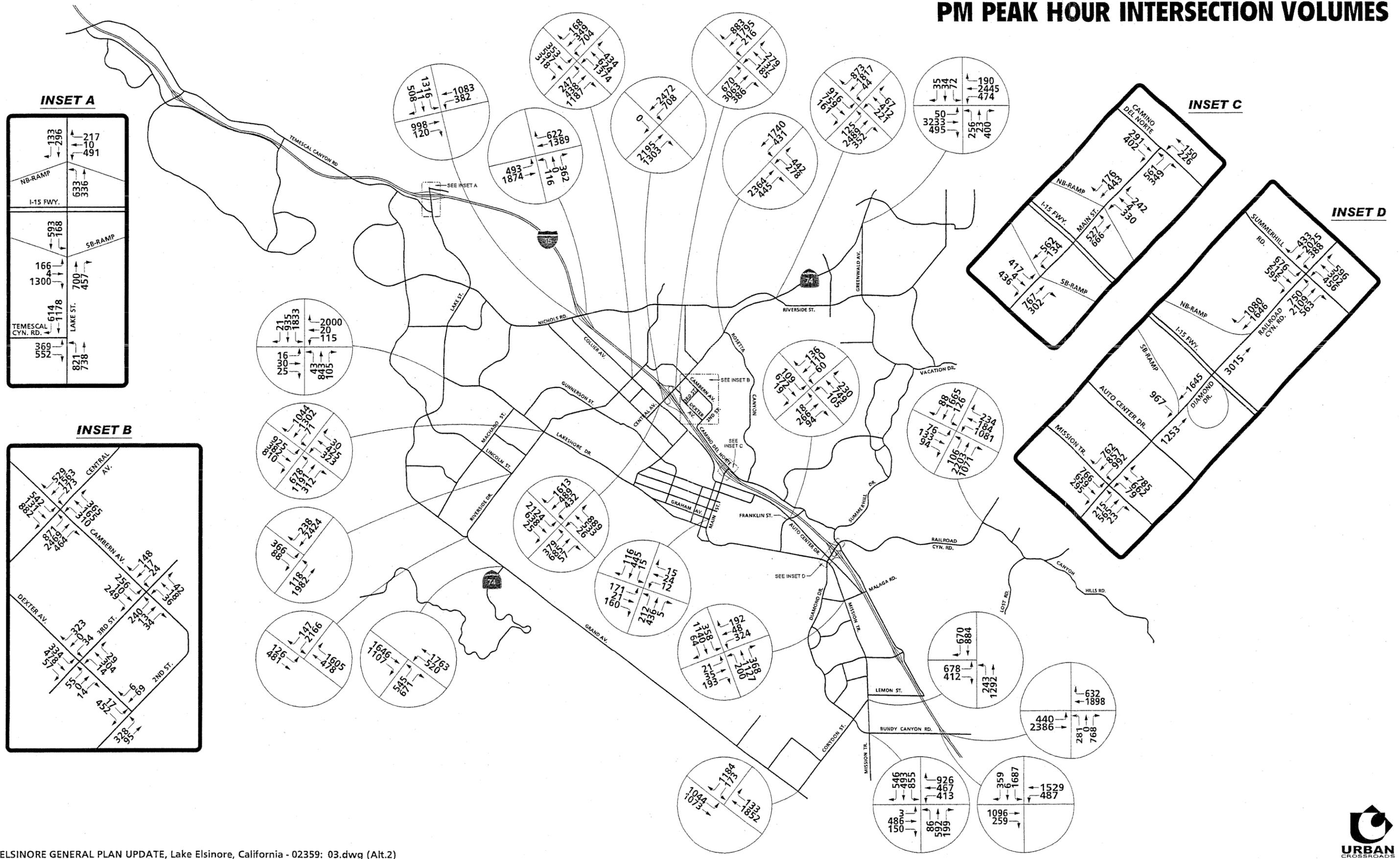


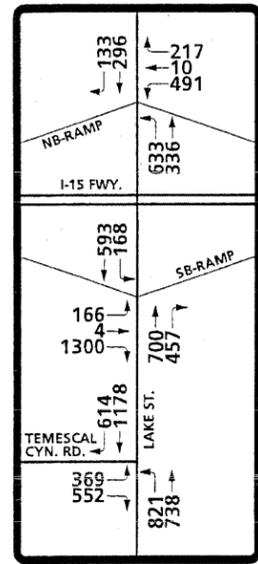
EXHIBIT 4-H
**ALTERNATIVE 2 GENERAL PLAN
 AM PEAK HOUR INTERSECTION VOLUMES**



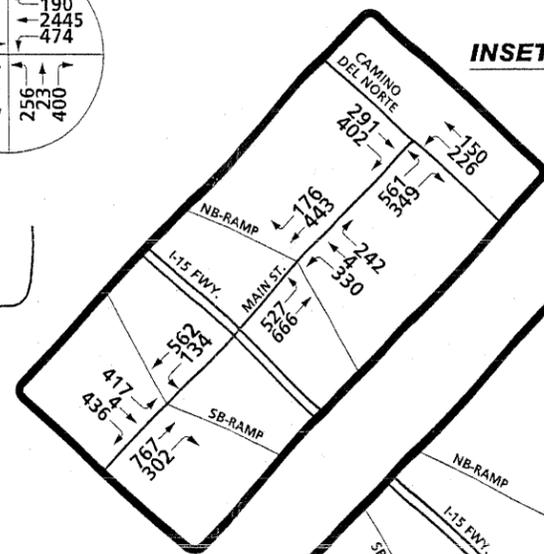
ALTERNATIVE 2 GENERAL PLAN PM PEAK HOUR INTERSECTION VOLUMES



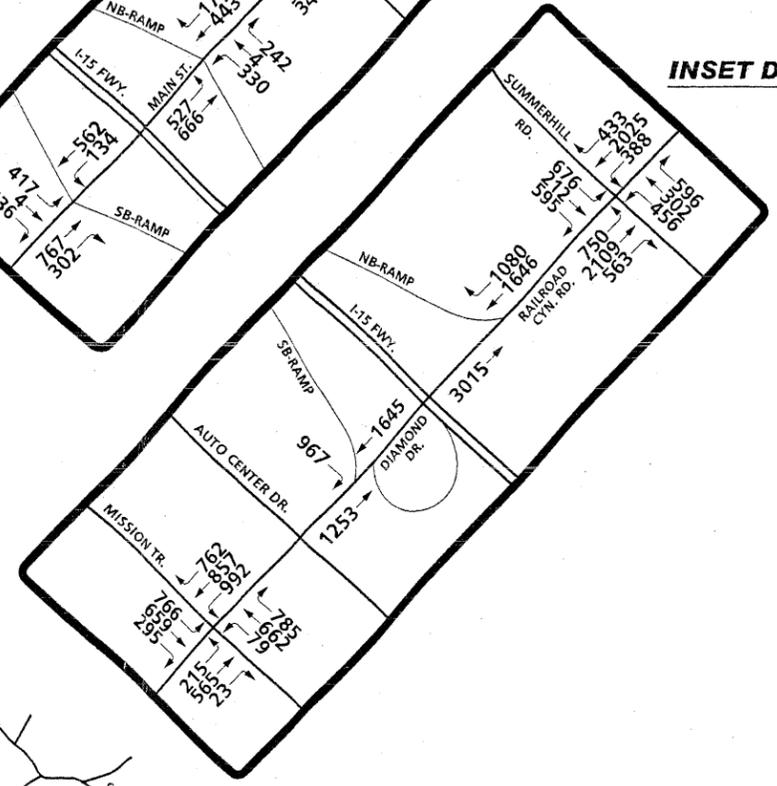
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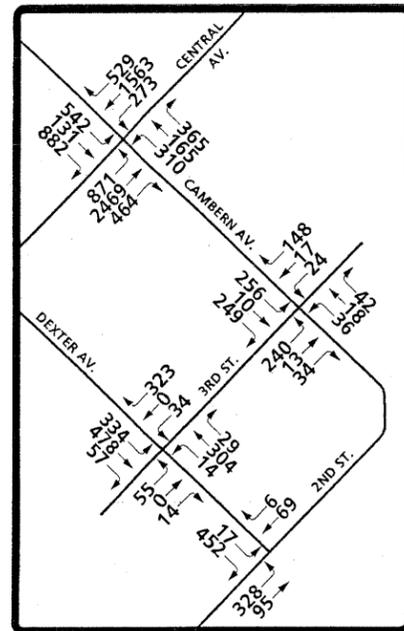
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5.0 TRAFFIC OPERATIONS ANALYSIS

This section of the report presents the operations analysis for three (3) General Plan alternative conditions (Preferred, Alternative 1, and Alternative 2). As discussed in Chapter 2, the Preferred General Plan scenario reflects the preferred General Plan socio-economic data, while Alternative 1 and Alternative 2 General Plan scenario reflect Alternative 1 and Alternative 2 socio-economic data respectively. The operations analysis procedures conform to the requirements of the County of Riverside guidelines. This chapter will determine whether the proposed three (3) General Plan alternative conditions are acceptable based on the operations analysis. Improvement measures will be provided for the proposed roadway network and the analysis intersections for each condition.

5.1 Preferred General Plan Operations Analysis

The intersection operations analysis for the Preferred General Plan scenario with existing geometric conditions is summarized in Table 5-1. The operations analysis worksheets are included in Appendix "Q". As shown on Table 5-1, the following study area intersections are projected to experience unacceptable levels of service without improvements during the peak hours and are, therefore, deficient per the City of Lake Elsinore criteria:

Lake Street (NS) at:

- I-15 Northbound Ramps (EW)
- I-15 Southbound Ramps (EW)
- Temescal Canyon Road (EW)
- Lakeshore Drive (EW)

Lakeshore Drive (NS) at:

- Riverside Drive (EW)

TABLE 5-1 (PAGE 1 OF 2)

GENERAL PLAN PREFERRED ALTERNATIVE CONDITIONS INTERSECTION ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE	
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM
			L	T	R	L	T	R	L	T	R	L	T	R				
1	Lake St. (NS) at: • I-15 NB Ramps (EW) -With Improvements	CSS	0.5	0.5	0	0	1	1	0	0	0	0	1	0	--4	--4	F	F
		TS	2	1	0	0	2	1	0	0	0	2	1	0	43.1	31.1	D	C
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	--4	--4	F	F
		TS	0	2	2	2	2	0	0.5	0.5	2	0	0	0	43.4	36.6	D	D
3	• Temescal Canyon Rd. (EW) -With Improvements	CSS	0.5	0.5	0	0	1	1	0	1	0	0	0	--4	--4	F	F	
		TS	2	2	0	0	2	1	2	0	1	0	0	28.0	34.2	C	C	
4	• Lakeshore Dr. (EW) -With Improvements	TS	1	2	1	2	2	1	0.5	1.5	0	1	1	2>	--4	--4	F	F
		TS	1	3	1	2	2	1	0.5	1.5	0	1	1	1>>	44.8	31.9	D	C
5	Lakeshore Dr. (NS) at: • Riverside Dr. (EW) -With Improvements	TS	1	2	0	1	2	1	1	2	1	1	1	--4	--4	F	F	
		TS	2	3	0	2	2	2>	2	3	1	1	3	2>	41.1	46.9	D	D
6	Lincoln St. (NS) at: • Riverside Dr. (EW) -With Improvements	TS	0	0	0	1	0	1	1	1	0	0	1	1	--4	--4	F	F
		TS	0	0	0	1	0	1	1	3	0	0	3	1	22.3	23.4	C	C
7	I-15 NB Ramps (NS) at: • Nichols St. (EW) -With Improvements	CSS	1	1	0	0	0	0	1	1	0	0	1	0	--4	--4	F	F
		TS	1	1	0	0	0	0	2	2	0	0	2	1>>	37.6	37.2	D	D
8	• Central Ave. (EW) -With Improvements	TS	0.5	0.5	1	0	0	0	1	2	0	0	2	1	--4	--4	F	F
		TS	1	1	1	0	0	0	2	3	1	1	2	1	20.1	41.7	C	D
9	• Bundy Canyon Rd. (EW) -With Improvements	TS	1	1	0	0	0	0	1	2	0	0	2	0	--4	--4	F	F
		TS	1	0	1>>	0	0	0	2	2	0	0	2	1>>	21.3	30.3	C	C
10	I-15 SB Ramps (NS) at: • Nichols St. (EW) -With Improvements	CSS	0	0	0	0.5	0.5	1	0	1	1>>	1	1	0	--4	--4	F	F
		TS	0	0	0	2	1	0	0	2	1>>	2	2	0	40.3	43.1	D	D
11	• Central Ave. (EW) -With Improvements	TS	0	0	0	0.5	0.5	1	0	2	0	1	2	0	--4	--4	F	F
		TS	0	0	0	0	0	0	0	2	2	2	2	0	14.3	15.2	B	B
12	• Bundy Canyon Rd. (EW) -With Improvements ⁵	TS	0	0	0	1	1	0	0	2	0	1	2	0	--4	--4	F	F
		TS	0	0	0	2	1	0	0	3	1	2	3	0	40.5	48.8	D	D
13	Riverside Dr. (NS) at: • Grand Ave. (EW) -With Improvements	CSS	1	1	0	0	1	0	0	0	1	0	0	0	--4	--4	F	F
		TS	1	2	0	0	3	0	1	0	1>	0	0	0	18.9	33.5	B	C
14	Grand Ave. (NS) at: • Ortega Hwy. (EW) -With Improvements	AWS	0.5	0.5	0	0	1	1>>	1	0	1>>	0	0	0	--4	--4	F	F
		TS	2	2	0	0	2	1>>	2	0	1>>	0	0	0	39.0	29.5	D	C
15	Collier Ave. (NS) at: • Riverside Dr. (EW) -With Improvements ⁶	TS	1	1	0	1	1	1	0.5	0.5	1	0	1	0	--4	--4	F	F
		TS	3	1	1	2	2	1>	1	2	2>	2	2	1	43.6	51.4	D	D
16	• Central Ave. (EW) -With Improvements ⁵	TS	1	1	1	1	1	0	1	1	0	2	1	2>	--4	--4	F	F
		TS	1	2	3	3	1	1	2	3	0	2	2	2>	34.9	51.4	C	D
17	Riverside St. (NS) at: • SR-74 (EW) -With Improvements	CSS	1	0	1	0	0	0	0	2	0	1	2	0	--4	--4	F	F
		TS	1	3	1	2	2	1	2	4	0	1	4	1>	53.2	49.7	D	D
18	Greenwald Ave. (NS) at: • SR-74 (EW) -With Improvements	TS	1	1	0	0	1	0	1	1	1	1	1	0	--4	--4	F	F
		TS	2	1	1>	1	1	0	1	4	0	2	3	0	42.0	35.9	D	D
19	Rosetta Canyon Dr. (EW) at: • SR-74 (EW) -With Improvements	CSS	1	0	1	0	0	0	0	2	0	1	2	0	--4	--4	F	F
		TS	1	0	1>	0	0	0	0	3	1	2	2	0	26.1	33.4	C	C
20	Cambern Ave. (NS) at: • SR-74 (EW) -With Improvements	TS	1	1	0	0.5	0.5	1	2	2	0	1	1	1	--4	--4	F	F
		TS	2	1	1>	2	1	2>	2	4	1	1	4	2	40.5	49.9	D	D
21	• 3rd St. (EW) -With Improvements	CSS	0	1	0	0	1	0	0	1	0	0	1	0	21.5	--4	C	F
		TS	1	1	0	1	1	0	1	1	0	1	1	0	37.6	37.8	D	D

TABLE 5-1 (PAGE 2 OF 2)

GENERAL PLAN PREFERRED ALTERNATIVE CONDITIONS INTERSECTION ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ₂ (SEC)		LEVEL OF SERVICE		
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM	
			L	T	R	L	T	R	L	T	R	L	T	R					
22	Dexter Ave. (NS) at:																		
	• 3rd St. (EW)	CSS	0	1	0	0	1	0	0	1	0	1	0	1	26.6	-- ⁴	D	F	
	-With Improvements	IS	1	1	0	1	1	0	1	1	0	1	1	0	36.4	42.4	D	D	
23	• 2nd St. (EW)	CSS	0	1	0	0	1	0	0.5	0.5	0	0	1	0	11.7	-- ⁴	B	F	
	-With Improvements	IS	1	1	0	1	1	0	1	1	0	1	1	0	34.9	45.0	C	D	
24	Main St. (NS) at:																		
	• Camino De Norte (EW)	CSS	1	0	1	0	0	0	0	1	1	1	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	IS	2	0	1	0	0	0	0	1	1	1	1	0	40.4	43.8	D	D	
25	• I-15 NB Ramps (EW)	CSS	1	1	0	0	1	0	0	0	0	0.5	0.5	1	-- ⁴	-- ⁴	F	F	
	-With Improvements	IS	1.5	1.5	0	0	2	1	0	0	0	0.5	0.5	1	40.3	37.8	D	D	
26	• I-15 SB Ramps (EW)	CSS	0	1	1	1	1	0	0.5	1.5	0	0	0	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	IS	0	2	1	1	1	0	0.5	1.5	0	0	0	0	39.5	34.7	D	C	
27	• Graham Ave. (EW)	CSS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	17.5	-- ⁴	C	F	
	-With Improvements	IS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	13.6	16.7	B	B	
28	Franklin St. (NS) at:																		
	• Auto Center Dr. (EW)	CSS	0	1	1	0.5	0.5	0	0	0	0	1	0	1	-- ⁴	-- ⁴	F	F	
	-With Improvements	IS	1	1	0	1	1	0	1	1	0	1	1	1	33.5	49.4	C	D	
29	Summerhill Dr./Grape St. (NS)																		
	• Railroad Canyon Rd. (EW)	TS	2	2	1	1	1	1>	2	2	0	1	3	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	TS	2	2	2>	2	1	2>	2	3	1>	2	4	1	47.9	51.7	D	D	
30	Railroad Canyon Rd. (NS) at:																		
	• I-15 NB(EW)	TS	1	2	0	0	2	1	0	0	0	0.5	0.5	1	-- ⁴	-- ⁴	F	F	
	-With Improvements ⁵	TS	0	2	0	0	2	2	0	0	0	0	0	0	0.5	1.3	A	A	
31	• Canyon Hills Rd. (EW)	TS	1	3	1	1	3	0	0	0	0	2	0	1	-- ⁴	-- ⁴	F	F	
	-With Improvements	TS	1	3	1>	1	3	1	1	2	0	2	1	1	43.1	48.5	D	D	
32	Diamond Dr(NS) at:																		
	• I-15 SB(EW)	TS	0	2	1	1	2	0	1	1	0	0	0	0	-- ⁴	-- ⁴	F	F	
	-With Improvements ⁵	TS	0	2	0	0	2	0	0	0	1>>	0	0	0	0.5	0.6	A	A	
33	• Mission Trail-Lakeshore Dr. (EW)	TS	1	2	1	2	2	0	1	2	0	1	2	1	-- ⁴	-- ⁴	F	F	
	-With Improvements	TS	2	3	1	2	2	1>	2	2	1>	1	3	2>	40.8	54.6	D	D	
34	Mission Trail (NS) at:																		
	• Malaga Rd. (EW)	TS	1	2	0	1	2	0	1	1	1	1	2	0	29.2	-- ⁴	C	F	
	-With Improvements	TS	1	2	0	2	2	0	1	1	1	2	2	0	30.9	44.6	C	D	
35	• Corydon St. (EW)	TS	1	2	0	0	2	1>	1	0	1	0	0	0	28.2	27.1	C	C	
36	• Bundy Canyon Rd. (EW)	TS	1	2	0	1	2	0	0	1	0	1	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	TS	1	2	1	2	1	1>	1	2	1	2	1	1>	38.2	47.8	D	D	
37	Corydon St.(NS) at:																		
	• Grand Ave. (EW)	TS	0	0	1	0.5	0.5	1>	1	1	0	1	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	TS	0	1	0	0.5	0.5	2>	2	2	0	0	3	0	19.3	34.6	B	C	

¹ 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;

² 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.

³ TS = Traffic Signal
 AWS = All Way Stop
 CSS = Cross St. Stop

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

⁵ = Railroad Canyon / I-15 Interchange is currently being studied independently. The results of this independent study will determine ultimate improvements in this area.

⁶ Maximum feasible improvements show achieve LOS "D" but not the most stringent Caltrans Criteria.

Lincoln Street (NS) at:

- Riverside Drive (EW)

I-15 NB Ramps (NS) at:

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

I-15 SB Ramps (NS) at:

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

Riverside Drive (NS) at:

- Grand Avenue (EW)

Grand Avenue (NS) at:

- Ortega Highway (EW)

Collier Avenue (NS) at:

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

Riverside Street (NS) at:

- SR-74 (EW)

Greenwald Avenue (NS) at:

- SR-74 (EW)

Rosetta Canyon Drive (NS) at:

- SR-74 (EW)

Cambern Avenue (NS) at:

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

Dexter Avenue (NS) at:

- 3rd Street (EW)
- 2nd Street

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 (NS) at:

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

Mission Trail (NS) at:

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

Corydon Street (NS) at:

- Grand Avenue (EW)

The list of intersection analysis locations was selected specifically to include intersections along arterial roadways that have not been widened to their General Plan designations or at key intersections at freeway interchanges. Therefore, the finding that nearly all of the analysis locations require improvements is consistent with expectations.

Traffic signal warrant analysis has been conducted for the unsignalized intersections and indicates that the following intersections appear to warrant a traffic signal under the Preferred General Plan conditions in addition to the intersections which currently warrant a traffic signal (see Appendix "G"):

Lake Street (NS) at:

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

Nichols Road (NS) at:

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

Grand Avenue (NS) at:

- Riverside Drive (EW)

Riverside Street (NS) at:

- SR-74 (EW)

Rosetta Canyon Drive (NS) at:

- SR-74 (EW) (Per information obtained from the City, a traffic signal has been recently installed at this location.)

Cambern Avenue (NS) at:

- 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)

The intersection operations analyses for Preferred General Plan with improvements conditions are also summarized in Table 5-1. The proposed General Plan roadway lane configurations have been incorporated into the intersection improvements analysis. As shown in Table 5-1, all study area intersections are projected to operate at acceptable levels of service during the peak hours with improvements that are consistent with the proposed roadway system. The operations analysis worksheets for Preferred General Plan with improvements conditions are included in Appendix "Q". The intersection improvements under Preferred General Plan conditions are illustrated on Exhibit ES-C presented in the Executive Summary chapter.

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:

- 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

The City has indicated some special concerns for some of the proposed improvements such as Railroad Canyon Interchange area, SR-74 interchange area as well as the 3rd Street Annexation project area. Detailed discussion of these issues is included in the Special Issues chapter (Chapter 6).

5.2 General Plan Alternative 1 Operations Analysis

The intersection operations analysis for the General Plan Alternative 1 scenario with existing geometric conditions is summarized in Table 5-2. The operations analysis worksheets are included in Appendix "R". As shown on Table 5-2, the same study area intersections that were projected to experience deficient traffic operations without improvements in the Preferred General Plan scenario are also deficient in the General Plan Alternative 1 operations analysis.

Traffic signal warrant analysis has been conducted for the unsignalized intersections under Alternative 1 conditions (see Appendix "G"). The same intersections that warrant traffic signals in the Preferred General Plan scenario also warrant a traffic signal under the Alternative 1 conditions.

TABLE 5-2 (PAGE 1 OF 2)

GENERAL PLAN ALTERNATIVE 1 CONDITIONS INTERSECTION ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE	
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM
			L	T	R	L	T	R	L	T	R	L	T	R				
1	Lake St. (NS) at:																	
	• I-15 NB Ramps (EW) -With Improvements	CSS TS	0.5 2	0.5 1	0 0	0 0	1 1	1 1	0 0	0 0	0 0	0 2	1 1	0 0	--4 42.5	--4 33.4	F D	F C
2	Lake St. (NS) at:																	
	• I-15 SB Ramps (EW) -With Improvements	CSS TS	0 0	1 2	1 2	0.5 2	0.5 2	0 0	0.5 0.5	0.5 2	1 0	0 0	0 0	--4 32.1	--4 42.5	F D	F D	
3	Lake St. (NS) at:																	
	• Temescal Canyon Rd. (EW) -With Improvements	CSS TS	0.5 2	0.5 2	0 0	0 0	1 2	1 1	0 2	1 0	1 2	0 0	0 0	--4 25.7	--4 34.4	F C	F C	
4	Lake St. (NS) at:																	
	• Lakeshore Dr. (EW) -With Improvements	TS TS	1 1	2 2	1 1	2 2	2 2	1 1	0.5 0.5	1.5 1.5	0 0	1 1	1 1	--4 47.3	--4 35.6	F D	F D	
5	Lakeshore Dr. (NS) at:																	
	• Riverside Dr. (EW) -With Improvements	TS TS	1 2	2 2	0 0	1 2	2 2	1 2	1 2	1 2	1 1	1 3	1 2	--4 44.4	--4 50.4	F D	F D	
6	Lincoln St. (NS) at:																	
	• Riverside Dr. (EW) -With Improvements	TS TS	0 0	0 0	0 0	1 1	0 0	1 1	1 1	0 3	0 0	1 3	1 1	--4 22.3	--4 23.0	F C	F C	
7	I-15 NB Ramps (NS) at:																	
	• Nichols St. (EW) -With Improvements	CSS TS	1 1	1 1	0 0	0 0	0 0	0 0	1 2	1 2	0 0	0 2	1 1	--4 36.0	--4 36.9	F D	F D	
8	I-15 NB Ramps (NS) at:																	
	• Central Ave. (EW) -With Improvements	TS TS	0.5 1	0.5 1	1 1	0 0	0 0	0 0	1 2	2 3	0 1	0 1	2 2	--4 20.1	--4 39.4	F C	F D	
9	I-15 NB Ramps (NS) at:																	
	• Bundy Canyon Rd. (EW) -With Improvements	TS TS	1 1	1 0	0 1	0 0	0 0	0 0	1 2	2 2	0 0	0 2	2 1	--4 20.2	--4 26.8	F C	F C	
10	I-15 SB Ramps (NS) at:																	
	• Nichols St. (EW) -With Improvements	CSS TS	0 0	0 0	0 0	0.5 1.5	0.5 0.5	1 1	0 0	1 3	1 1	1 3	1 2	--4 41.9	--4 39.9	F D	F D	
11	I-15 SB Ramps (NS) at:																	
	• Central Ave. (EW) -With Improvements	TS TS	0 0	0 0	0 0	0.5 0	0.5 0	1 0	0 2	2 1	0 2	1 2	2 2	--4 15.6	--4 21.5	F B	F C	
12	I-15 SB Ramps (NS) at:																	
	• Bundy Canyon Rd. (EW) -With Improvements ⁵	TS TS	0 0	0 0	0 0	1 2	1 1	0 0	0 0	2 3	0 1	1 2	2 3	--4 36.4	--4 46.3	F D	F D	
13	Riverside Dr. (NS) at:																	
	• Grand Ave. (EW) -With Improvements	CSS TS	1 1	1 2	0 0	0 0	1 3	0 0	0 1	0 0	1 1	0 0	0 0	--4 16.1	--4 25.2	F B	F C	
14	Grand Ave. (NS) at:																	
	• Ortega Hwy. (EW) -With Improvements	AWS TS	0.5 2	0.5 2	0 0	0 0	1 2	1 1	1 2	0 0	1 2	0 0	0 0	--4 32.7	--4 32.5	F C	F C	
15	Collier Ave. (NS) at:																	
	• Riverside Dr. (EW) -With Improvements ⁶	TS TS	1 3	1 1	0 1	1 1	1 2	1 1	0.5 1	0.5 2	1 2	0 2	1 2	--4 48.5	--4 50.9	F D	F D	
16	Collier Ave. (NS) at:																	
	• Central Ave. (EW) -With Improvements ⁶	TS TS	1 1	1 2	1 3	1 3	1 1	0 1	1 2	1 3	0 0	2 2	2 2	--4 34.6	--4 53.4	F C	F D	
17	Riverside St. (NS) at:																	
	• SR-74 (EW) -With Improvements	CSS TS	1 1	0 3	1 0	0 2	0 2	0 1	0 2	2 4	0 1	1 1	2 4	--4 53.2	--4 45.7	F D	F D	
18	Greenwald Ave. (NS) at:																	
	• SR-74 (EW) -With Improvements	TS TS	1 2	1 1	0 1	0 1	1 1	0 0	1 1	1 4	1 0	1 2	0 3	--4 35.5	--4 44.6	F D	F D	
19	Rosetta Canyon Dr. (EW) at:																	
	• SR-74 (EW) -With Improvements	CSS TS	1 1	0 0	1 1	0 0	0 0	0 0	0 3	2 1	0 2	1 2	0 0	--4 29.0	--4 33.8	F C	F C	
20	Camern Ave. (NS) at:																	
	• SR-74 (EW) -With Improvements	TS TS	1 2	1 1	0 1	0.5 2	0.5 1	1 2	2 2	0 4	0 1	1 1	1 4	--4 41.0	--4 48.6	F D	F D	
21	Camern Ave. (NS) at:																	
	• 3rd St. (EW) -With Improvements	CSS TS	0 1	0 1	0 0	0 1	0 0	0 0	0 1	0 0	1 0	0 1	0 0	21.9 37.7	--4 38.5	C D	F D	

TABLE 5-2 (PAGE 2 OF 2)

GENERAL PLAN ALTERNATIVE 1 CONDITIONS INTERSECTION ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE				
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM			
			L	T	R	L	T	R	L	T	R	L	T	R							
22	Dexter Ave. (NS) at:																				
	• 3rd St. (EW)	CSS	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	23.4	-- ⁴	C	F
23	-With Improvements	TS	1	1	0	1	1	0	1	0	1	1	0	1	1	0	1	36.6	36.8	D	D
	• 2nd St. (EW)	CSS	0	1	0	0	1	0	0.5	0.5	0	0	0	1	0	1	0	11.6	21.9	B	C
24	Main St. (NS) at:																				
	• Camino De Norte (EW)	CSS	1	0	1	0	0	0	0	1	1	1	1	0				-- ⁴	-- ⁴	F	F
25	-With Improvements	TS	1	0	1	0	0	0	0	1	1	1	1	0				38.2	40.2	D	D
	• I-15 NB Ramps (EW)	CSS	1	1	0	0	1	0	0	0	0	0.5	0.5	1				-- ⁴	-- ⁴	F	F
26	-With Improvements	TS	1.5	1.5	0	0	2	1	0	0	0	0.5	0.5	1				39.6	36.3	D	D
	• I-15 SB Ramps (EW)	CSS	0	1	1	1	1	0	0.5	1.5	0	0	0	0				-- ⁴	-- ⁴	F	F
27	-With Improvements	TS	0	2	1	1	1	0	0.5	1.5	0	0	0	0				36.6	32.7	D	C
	• Graham Ave. (EW)	CSS	0	1	0	0	1	0	0.5	0.5	1	0	1	0				16.9	-- ⁴	C	F
28	-With Improvements	TS	0	1	0	0	1	0	0.5	0.5	1	0	1	0				13.8	16.1	B	B
	Franklin St. (NS) at:																				
28	• Auto Center Dr. (EW)	CSS	0	1	1	0.5	0.5	0	0	0	0	1	0	1				50.0	-- ⁴	E	F
	-With Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	0				34.9	45.7	C	D
29	Summerhill Dr./Grape St. (NS)																				
	• Railroad Canyon Rd. (EW)	TS	2	2	1	1	1	1>	2	2	0	1	3	0				-- ⁴	-- ⁴	F	F
30	-With Improvements	TS	2	2	2>	2	1	2>	2	3	1>	2	4	1				46.0	46.7	D	D
	Railroad Canyon Rd. (NS) at:																				
31	• I-15 NB(EW)	TS	1	2	0	0	2	1	0	0	0	0.5	0.5	1				-- ⁴	-- ⁴	F	F
	-With Improvements ⁵	TS	0	2	0	0	2	1	0	0	0	0	0	0				3.3	1.5	A	A
32	• Canyon Hills Rd. (EW)	TS	1	3	1	1	3	0	0	0	0	2	0	1				-- ⁴	-- ⁴	F	F
	-With Improvements	TS	1	3	1>	1	3	1	1	2	0	2	1	0				43.2	45.1	D	D
33	Diamond Dr(NS) at:																				
	• I-15 SB(EW)	TS	0	2	1	1	2	0	1	1	0	0	0	0				-- ⁴	-- ⁴	F	F
34	-With Improvements ⁵	TS	0	2	0	0	2	0	0	0	1>>	0	0	0				0.6	0.6	A	A
	• Mission Trail-Lakeshore Dr. (EW)	TS	1	2	1	2	2	0	1	2	0	1	2	1				-- ⁴	-- ⁴	F	F
35	-With Improvements	TS	2	3	0	2	2	1>	2	2	1	1	2	1>				51.6	47.9	D	D
	Mission Trail (NS) at:																				
36	• Malaga Rd. (EW)	TS	1	2	0	1	2	0	1	1	1	1	2	0				29.5	-- ⁴	C	F
	-With Improvements	TS	1	2	0	2	2	0	1	1	1	1	2	0				32.0	47.2	C	D
37	• Corydon St. (EW)	TS	1	2	0	0	2	1>	1	0	1	0	0	0				25.9	24.0	C	C
	-With Improvements	TS	1	2	1	2	2	0	0.5	1.5	1	1	1	1>				52.9	52.0	D	D
37	Corydon St.(NS) at:																				
	• Grand Ave. (EW)	TS	0	0	1	0.5	0.5	1>	1	1	0	1	1	0				-- ⁴	-- ⁴	F	F
37	-With Improvements	TS	0	1	0	0.5	0.5	2>	2	2	0	0	2	0				21.4	41.8	C	D

¹ 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;

² 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.

³ TS = Traffic Signal
 AWS = All Way Stop
 CSS = Cross St. Stop

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

⁵ = Railroad Canyon / I-15 Interchanges currently being studied independently. The results of this independent study will determine ultimate improvements in this area.

⁶ Maximum feasible improvements show achieve LOS "D" but not the most stringent Caltrans Criteria.

The intersection operations analyses for the Alternative 1 General Plan with improvements conditions are also summarized in Table 5-2. The proposed General Plan roadway lane configurations have been incorporated into the intersection improvements analysis. As shown in Table 5-2, all study area intersections are projected to operate at acceptable levels of service during the peak hours with improvements that are consistent with the proposed roadway system. The operations analysis worksheets for the Alternative 1 General Plan with improvements conditions are included in Appendix "R".

Again, 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:

- Lakeshore Drive (NS) at Riverside Drive (EW) – 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

5.3 General Plan Alternative 2 Operations Analysis

The intersection operations analysis for the General Plan Alternative 2 scenario with existing geometric conditions is summarized in Table 5-3. The operations analysis worksheets are included in Appendix "S". As shown on Table 5-3, the

TABLE 5-3 (PAGE 1 OF 2)

GENERAL PLAN ALTERNATIVE 2 CONDITIONS INTERSECTION ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL ²	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE	
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM
			L	T	R	L	T	R	L	T	R	L	T	R				
1	Lake St. (NS) at:																	
	• I-15 NB Ramps (EW) -With Improvements	CSS IS	0.5 2	0.5 1	0 0	0 0	1 1	1 1	0 0	0 0	0 0	0 0	1 2	1 1	0 0	--4 39.9	--4 31.6	F D
2	I-15 SB Ramps (EW)	CSS	0	1	1	0.5	0.5	0	0.5	0.5	1	0	0	0	--4	--4	F	F
	-With Improvements	IS	0	2	1	1	1	0	0.5	0.5	2	0	0	0	37.2	38.6	D	D
3	Temescal Canyon Rd. (EW)	CSS	0.5	0.5	0	0	1	1	0	1	0	0	0	0	--4	--4	F	F
	-With Improvements	IS	2	2	0	0	2	1	2	0	1	0	0	0	26.7	30.9	C	C
4	Lakeshore Dr. (EW)	TS	1	2	1	2	2	1	0.5	1.5	0	1	1	2>	--4	--4	F	F
	-With Improvements	TS	1	2	1	2	2	1	0.5	1.5	0	1	1	1>>	49.3	36.5	D	D
5	Lakeshore Dr. (NS) at:																	
	• Riverside Dr. (EW) -With Improvements	TS TS	1 2	2 2	0 0	1 2	2 2	1 2>	1 2	2 2	1 1	1 1	1 3	1 2>	--4 41.1	--4 48.2	F D	F D
6	Lincoln St. (NS) at:																	
	• Riverside Dr. (EW) -With Improvements	TS TS	0 0	0 0	0 0	1 1	0 0	1 1	1 1	1 3	0 0	0 0	1 3	1 1	--4 22.1	--4 21.9	F C	F C
7	I-15 NB Ramps (NS) at:																	
	• Nichols St. (EW) -With Improvements	CSS IS	1 1	1 1	0 0	0 0	0 0	0 0	1 1	1 2	0 0	0 0	1 2	0 1>>	--4 32.1	--4 42.4	F C	F D
8	Central Ave. (EW)	TS	0.5	0.5	1	0	0	0	1	2	0	0	2	1	--4	--4	F	F
	-With Improvements	TS	0.5	1.5	1	0	0	0	2	3	0	1	2	1	19.8	38.1	B	D
9	Bundy Canyon Rd. (EW)	TS	1	1	0	0	0	0	1	2	0	0	2	0	--4	--4	F	F
	-With Improvements	TS	1	0	1>>	0	0	0	2	2	0	0	2	1>>	20.7	29.5	C	C
10	I-15 SB Ramps (NS) at:																	
	• Nichols St. (EW) -With Improvements	CSS IS	0 0	0 0	0 0	0.5 1.5	0.5 0.5	1 1	0 0	1 3	1 1>>	1 1	1 2	0 0	--4 37.9	--4 39.8	F D	F D
11	Central Ave. (EW)	TS	0	0	0	0.5	0.5	1	0	2	0	1	2	0	--4	--4	F	F
	-With Improvements	TS	0	0	0	0	0	0	0	2	1	2	2	0	15.8	17.4	B	B
12	Bundy Canyon Rd. (EW)	TS	0	0	0	1	1	0	0	2	0	1	2	0	--4	--4	F	F
	-With Improvements ⁶	TS	0	0	0	2	1	0	0	3	1	2	3	0	38.7	51.1	D	D
13	Riverside Dr. (NS) at:																	
	• Grand Ave. (EW) -With Improvements	CSS IS	1 1	1 2	0 0	0 0	1 3	0 0	0 1	0 0	1 1>	0 0	0 0	0 0	--4 15.9	--4 25.8	F B	F C
14	Grand Ave. (NS) at:																	
	• Ortega Hwy. (EW) -With Improvements	AWS IS	0.5 2	0.5 2	0 0	0 0	1 2	1>> 1>>	1 2	0 0	1>> 1>	0 0	0 0	0 0	--4 32.7	--4 41.0	F C	F D
15	Collier Ave. (NS) at:																	
	• Riverside Dr. (EW) -With Improvements ⁶	TS TS	1 3	1 2	0 0	1 2	1 2	1 1>	0.5 1	0.5 2	1 2>	0 2	1 2	0 1	--4 46.4	--4 49.9	F D	F D
16	Central Ave. (EW)	TS	1	1	1	1	1	0	1	1	0	2	1	2>	--4	--4	F	F
	-With Improvements ⁶	TS	1	2	3	3	1	1	2	3	0	2	2	2>	34.4	48.8	C	D
17	Riverside St. (NS) at:																	
	• SR-74 (EW) -With Improvements	CSS IS	1 1	0 3	1 0	0 2	0 2	0 1	0 1	2 4	0 0	1 1	2 3	0 1>	--4 51.2	--4 45.5	F D	F D
18	Greenwald Ave. (NS) at:																	
	• SR-74 (EW) -With Improvements	TS TS	1 2	1 1	0 1	0 1	1 1	0 0	1 1	1 4	1 0	1 2	1 3	0 0	--4 31.0	--4 43.2	F C	F D
19	Rosetta Canyon Dr. (EW) at:																	
	• SR-74 (EW) -With Improvements	CSS IS	1 1	0 0	1 1	0 0	0 0	0 0	0 0	2 3	0 1	1 2	0 2	0 0	--4 27.2	--4 37.1	F C	F D
20	Cambern Ave. (NS) at:																	
	• SR-74 (EW) -With Improvements	TS TS	1 2	1 1	0 1>	0.5 2	0.5 1	1 2>	2 2	0 3	0 1	1 2	1 3	1 1>	--4 49.8	--4 54.2	F D	F D
21	3rd St. (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	19.1	--4	C	F
	-With Improvements	AWS	0	1	0	0	1	0	0	1	0	0	1	0	9.7	16.8	A	C

TABLE 5-3 (PAGE 2 OF 2)

GENERAL PLAN ALTERNATIVE 2 CONDITIONS INTERSECTION ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL ³	INTERSECTION APPROACH LANES ¹												Delay ² (SEC)		LEVEL OF SERVICE	
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			AM	PM	AM	PM
			L	T	R	L	T	R	L	T	R	L	T	R				
22	Dexter Ave. (NS) at:																	
	• 3rd St. (EW)	CSS	0	1	0	0	1	0	0	1	0	1	0	1	24.5	--4	C	F
	-With Improvements	TS	1	1	0	1	1	0	1	0	1	1	0	1	32.0	36.3	C	D
23	• 2nd St. (EW)	CSS	0	1	0	0	1	0	0.5	0.5	0	0	1	0	11.7	25.2	B	D
24	Main St. (NS) at:																	
	• Camino De Norte (EW)	CSS	1	0	1	0	0	0	0	1	1	1	1	0	--4	--4	F	F
	-With Improvements	TS	1	0	1	0	0	0	0	1	1	1	1	0	33.1	32.2	C	C
25	• I-15 NB Ramps (EW)	CSS	1	1	0	0	1	0	0	0	0	0.5	0.5	1	--4	--4	F	F
	-With Improvements	TS	1.5	1.5	0	0	2	0	0	0	0	1.5	0.5	1	38.4	35.4	D	D
	• I-15 SB Ramps (EW)	CSS	0	1	1	1	1	0	0.5	1.5	0	0	0	0	--4	--4	F	F
26	-With Improvements	TS	0	1	1	1	1	0	0.5	1.5	0	0	0	0	44.1	31.4	D	C
	• Graham Ave. (EW)	CSS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	19.6	--4	C	F
	-With Improvements	TS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	13.2	16.2	B	B
28	Franklin St. (NS) at:																	
	• Auto Center Dr. (EW)	CSS	0	1	1	0.5	0.5	0	0	0	0	1	0	1	40.3	--4	E	F
	-With Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	0	35.0	53.7	D	D
29	Summerhill Dr./Grape St. (NS)																	
	• Railroad Canyon Rd. (EW)	TS	2	2	1	1	1	1>	2	2	0	1	3	0	--4	--4	F	F
	-With Improvements	TS	2	2	2>	2	1	2>	2	3	1	2	4	1	50.4	47.6	D	D
30	Railroad Canyon Rd. (NS) at:																	
	• I-15 NB(EW)	TS	1	2	0	0	2	1	0	0	0	0.5	0.5	1	--4	--4	F	F
	-With Improvements ⁵	TS	0	2	0	0	2	1	0	0	0	0	0	0	1.8	1.9	A	A
31	• Canyon Hills Rd. (EW)	TS	1	3	1	1	3	0	0	0	0	2	0	1	--4	--4	F	F
	-With Improvements	TS	1	3	1>	1	3	1	1	2	1	2	1	0	41.0	47.5	D	D
	Diamond Dr(NS) at:																	
32	• I-15 SB(EW)	TS	0	2	1	1	2	0	1	1	0	0	0	0	47.3	--4	D	F
	-With Improvements ⁵	TS	0	2	0	0	2	0	0	0	1>>	0	0	0	0.5	0.5	A	A
	• Mission Trail-Lakeshore Dr. (EW)	TS	1	2	1	2	2	0	1	2	0	1	2	1	--4	--4	F	F
33	-With Improvements	TS	1	2	1	2	2	1>	2	2	1	1	2	2>	45.8	52.1	D	D
	Mission Trail (NS) at:																	
	• Malaga Rd. (EW)	TS	1	2	0	1	2	0	1	1	1	1	2	0	29.2	--4	C	F
34	-With Improvements	TS	1	2	0	2	2	0	1	1	1	1	2	0	31.7	53.2	C	D
	• Corydon St. (EW)	TS	1	2	0	0	2	1>	1	0	1	0	0	0	25.2	27.4	C	C
	• Bundy Canyon Rd. (EW)	TS	1	2	0	1	2	0	0	1	0	1	1	0	--4	--4	F	F
35	-With Improvements	TS	1	2	1	2	2	0	1	2	0	2	1	1>	38.8	45.6	D	D
	Corydon St.(NS) at:																	
	• Grand Ave. (EW)	TS	0	0	1	0.5	0.5	1>	1	1	0	1	1	0	--4	--4	F	F
36	-With Improvements	TS	0	1	0	0.5	0.5	2>	2	2	0	0	3	0	19.1	34.7	B	C

¹ 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;

² 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.

³ TS = Traffic Signal
 AWS = All Way Stop
 CSS = Cross St. Stop

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

⁵ = Railroad Canyon / I-15 Interchanges currently being studied independently. The results of this independent study will determine ultimate improvements in this area.

⁶ Maximum feasible improvements show achieve LOS "D" but not the most stringent Caltrans Criteria.

same study area intersections that were project to experience deficient traffic operations without improvements in the Preferred General Plan scenario are also deficient in the General Plan Alternative 2 operations analysis.

Traffic signal warrant analysis has been conducted for the unsignalized intersections under Alternative 2 conditions (see Appendix "G"). The same intersections that warrant traffic signals in the Preferred General Plan scenario also warrant a traffic signal under the Alternative 2 conditions except for the intersection of Cambern Avenue at 3rd Street. The intersection of Cambern Avenue at 3rd Street will operate at LOS "F" during PM peak hour under Alternative 2 conditions. Although it won't warrant traffic signal, the traffic signal may be installed per the City's request or based on the environment concerns.

The intersection operations analyses for the Alternative 2 General Plan with improvements conditions are also summarized in Table 5-3. The proposed General Plan roadway lane configurations have been incorporated into the intersection improvements analysis. As shown in Table 5-3, all study area intersections are projected to operate at acceptable levels of service during the peak hours with improvements that are consistent with the proposed roadway system. The operations analysis worksheets for the Alternative 2 General Plan with improvements conditions are included in Appendix "S".

Again, 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:

- Lakeshore Drive (NS) at Riverside Drive (EW) – 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

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6.0 SPECIAL ISSUES

In the course of preparing the General Plan Update Traffic Study, special issues related to the proposed circulation element, traffic model runs, and traffic operations analysis for City of Lake Elsinore were identified and discussed with City staff as well as the project team. This chapter discusses those special issues.

A. I-15 Freeway Route Conceptual Report

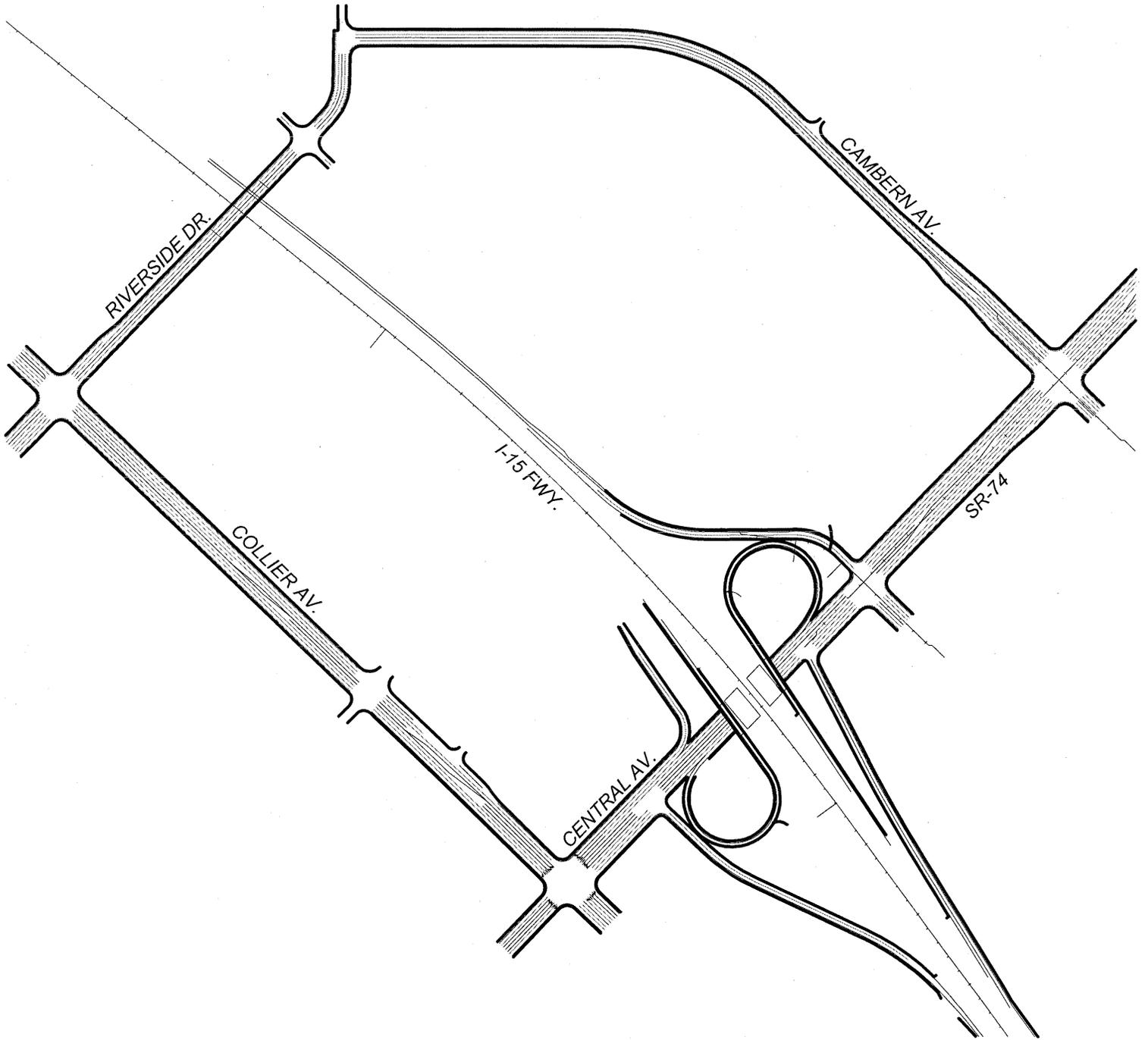
The I-15 Freeway Route Conceptual Report conducted by the regional agencies indicates that the I-15 Freeway is proposed to be widened to 8 mixed-use lanes plus 2 HOV lanes for the study area. Since the proposed freeway configuration is not reflected in the current RCIP traffic model, it is not included in the WRSATM for consistency purposes. However, the projected future freeway traffic volumes (as shown on Exhibit 4-A (ADT for the Preferred), Exhibit 4-D (ADT for Alternative 1), and Exhibit 4-G (ADT for Alternative 2)) reflect the need for the I-15 Freeway improvements.

The projected daily traffic volumes on the I-15 Freeway range between 201,000 vehicle per day (VPD) and 266,000 VPD for the various alternative analyzed in this study. Although further detailed peak hour analysis will be conducted as funding for the I-15 Freeway mainline improvements are identified, it is recommended that right-of-way be reserved to accommodate the proposed improvements in the route concept report and additional auxiliary lanes in the vicinity of the interchanges to facilitate weaving and / or ramp merge and diverge activities.

B. I-15 / SR-74 Interchange Conceptual Design

Exhibit 6-A illustrates the proposed conceptual design for the I-15 Freeway at SR-74 Interchange based on the I-15 / SR-74 Interchange Project Report Traffic

EXHIBIT 6-A
**PROPOSED CONCEPTUAL DESIGN
FOR I-15 / SR-74 INTERCHANGE**



Impact Analysis, submitted by Urban Crossroads, Inc., dated May 24, 2006. The proposed Circulation Map (Exhibit ES-A) and the traffic model reflect this latest conceptual design. As illustrated, the following features have been proposed:

- Construct southbound and northbound loop off-ramps
- Provide two-lane northbound off-ramps from the I-15 Freeway
- Widen SR-74 between ramp termini
- Widen Dexter Avenue south of the intersection with SR-74
- Close the existing connection north of SR-74 between SR-74 and Dexter Avenue.

Associated with this interchange improvement project, the Riverside Drive crossing will be constructed and will connect with Cambern Avenue to provide east and west connections over the I-15 Freeway to relieve traffic congestion on SR-74.

Cambren Avenue south of SR-74 is proposed to be connected with 3rd Street and Camino Del Norte as a Secondary Arterial to serve traffic volumes diverted from Dexter Avenue under future conditions. Cambren Avenue north of SR-74 is proposed to be constructed along the floodway channel and intersects Dexter at a right angle. This alignment is different from what has been proposed in the I-15 / SR74 Interchange Project Study, which shows less impact for several homes located in the County boundary. It is expected that Dexter will be used as alternate route to the Costco/Lowes shopping center.

C. I-15 / Railroad Canyon Road Interchange Conceptual Design

Exhibit 6-B illustrates the conceptual design for I-15 at Railroad Canyon Road Interchange. This conceptual design has been included in the traffic model and the proposed circulation map (Exhibit ES-A). Based on the latest discussion with

PROPOSED I-15 AND RAILROAD CANYON INTERCHANGE CONCEPT DESIGN



the City staff, Caltrans is currently re-conducting the Project Report Study for the interchange. The new footprint has not yet been determined, but should be released within next the two months. It is expected that the new configuration design will impact the improvements for the following intersections:

Summerhill Drive / Grape Street (NS) at:

- Railroad Canyon Road (EW)

Railroad Canyon Road (NS) at:

- I-15 Northbound Ramps (EW)

Diamond Drive (NS) at:

- I-15 Southbound Ramps (EW)
- Auto Center Drive / Casino Drive (EW)

The results of the soon to be published PR study will determine the ultimate improvements needed at these intersections.

D. 3rd Street Annexation Project

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 of Lake Elsinore. 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)

Exhibit 6-C illustrates the project location. Table 6-1 shows the land use data summary for the project. As illustrated, a total of 311 acres of residential and commercial land uses are proposed for the development. The latest version (7th Edition) of Institute of Transportation Engineers (ITE) is used to calculate the trip generation. The trip generation rates are shown on Table 6-2. Both daily and peak hour trip generation for the anticipated development are shown in Table 6-3. [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. These figures are based on an internal capture rate of 15%, which is conservatively low for a mixed use development area. Table 6-2 also includes the trip generation rates for the current zoning land uses by assuming 80 percent of the freeway business is general commercial while 20 percent is business park use. The daily and peak hour trip generation for the current zoning land uses are shown on Table 6-3. Compare the proposed development with the current zoning development, the proposed development represents a reduction of 16,944 daily trips. AM peak hour trip generation will be reduced by 103 vehicle trips, while the PM peak hour trip will be reduced by 1,637 vehicle trips.]

The possible project distribution pattern has also been developed and based on review of existing travel patterns and future model data, illustrated on Exhibit 6-D and Exhibit 6-E 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.

3RD STREET ANNEXATION PROJECT SITE PLAN

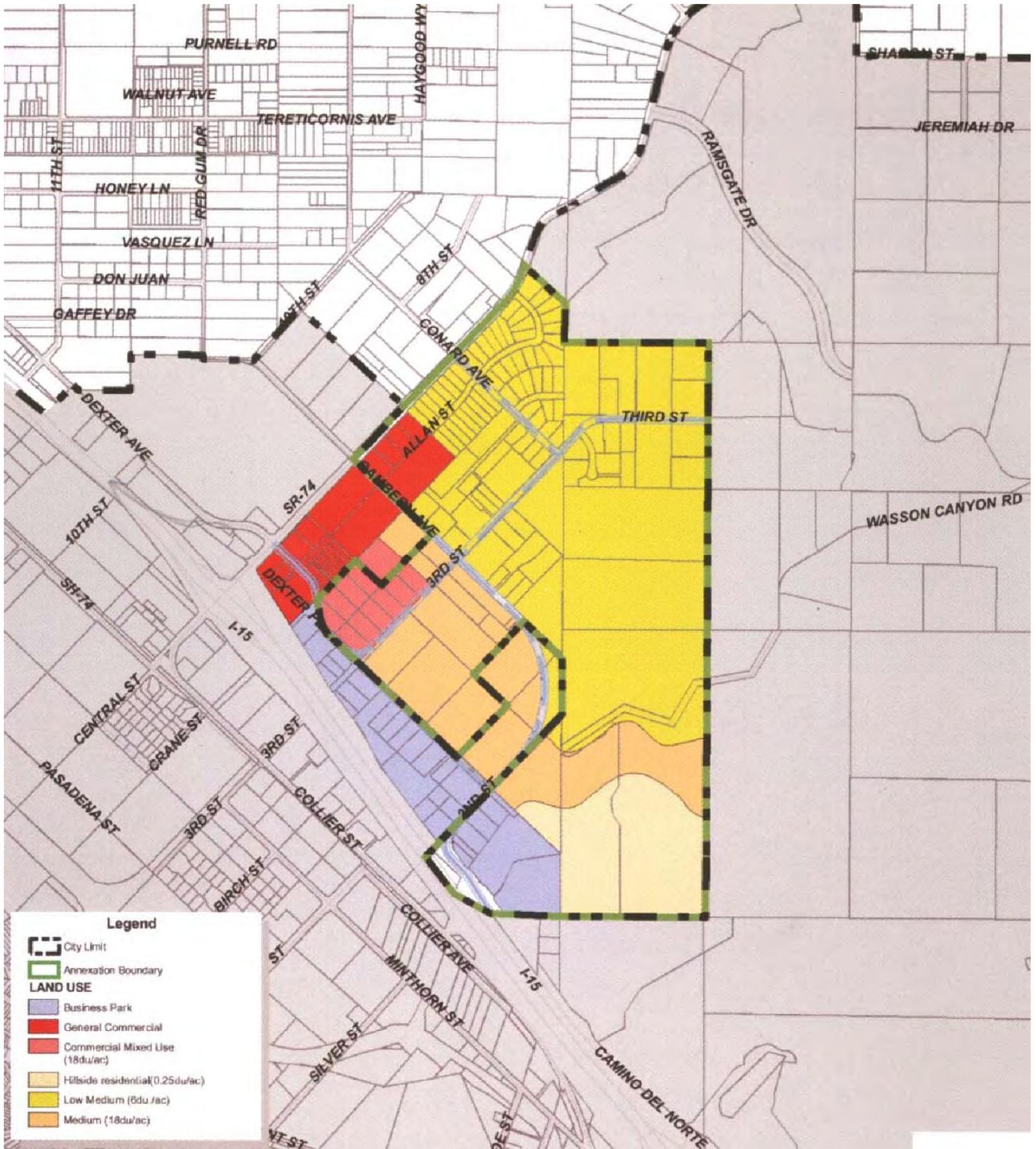


TABLE 6-1

3RD STREET ANNEXATION AREA
CURRENT ZONING AND PROPOSED LAND USE¹

LAND USE	CURRENT ZONING			PROPOSED		
	APPROX. ACRES	DENSITY	DU'S	APPROX. ACRES	DENSITY	DU'S
Hillside Residential	0	N/A	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	N/A	0	12.11	18	217
General Commercial	0	N/A	0	8.68	N/A	0
Business Park	0	N/A	0	16.59	N/A	0
Freeway Business	237.46	N/A	0	0	N/A	0
Total	310.58		438	310.58		2294

¹ 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.

TABLE 6-2

3RD STREET ANNEXATION AREA
TRIP GENERATION RATES¹

LAND USE	ITE CODE	QUANTITY	UNITS ²	PEAK HOUR TRIP RATES						DAILY
				AM			PM			
				IN	OUT	TOTAL	IN	OUT	TOTAL	
Single Family Residential	210	1096	DU	0.19	0.56	0.75	0.64	0.37	1.01	9.57
Residential Condo/Townhouse	230	1198	DU	0.07	0.37	0.44	0.35	0.17	0.52	5.86
Commercial (192.03TSF ³)	820	192.03	TSF	0.74	0.47	1.21	2.41	2.61	5.02	54.05
Business Park ⁴	770	231.3	TSF	1.20	0.23	1.43	0.3	0.99	1.29	12.76

¹ Source: ITE (Institute of Transportation Engineers) Trip Generation Manual, 7th Edition, 2003.

² DU = Dwelling Units, TSF = Thousand Square Feet

³ 192.03 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 9.688 acres (Mixed Use (80% of 12.11 acres)) plus 8.68 acres (General Commercial).

⁴ 231.3 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 16.59 acres.

⁵ 231.3 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 16.59 acres.

⁶ Based on Current Zoning Land Use Types as Shown in Table 1.

⁷ 1986.0 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 237.46 acres and the assumption that 80% of Freeway Business is General Commercial land use.

⁸ 662.0 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 237.46 acres and the assumption that 20% of Freeway Business is Business Park land use.

TABLE 6-3

3RD STREET ANNEXATION AREA
TRIP GENERATION SUMMARY

LAND USE	QUANTITY	UNITS ¹	PEAK HOUR						DAILY
			AM			PM			
			IN	OUT	TOTAL	IN	OUT	TOTAL	
Single Family Residential	1,096	DU	208	614	822	701	406	1,107	10,489
Residential Condo/Townhouse	1,198	DU	84	443	527	419	204	623	7,020
Commercial (192.03TSF)	192.0	TSF	142	90	232	463	501	964	10,379
Pass-By Trips (25%)			-36	-23	-58	-116	-125	-241	-2,595
Sub-Total			107	68	174	347	376	723	7,784
Business Park	231.3	TSF	278	53	331	69	229	298	2,951
SUB-TOTAL			676	1,178	1,854	1,537	1,214	2,751	28,244
Internal Capture (15%)			-101	-177	-278	-231	-182	-413	-4,237
TOTAL			575	1,001	1,576	1,307	1,032	2,339	24,008

¹ DU = Dwelling Units

3RD STREET ANNEXATION PROJECT TRIP DISTRIBUTION (TAZ 1)

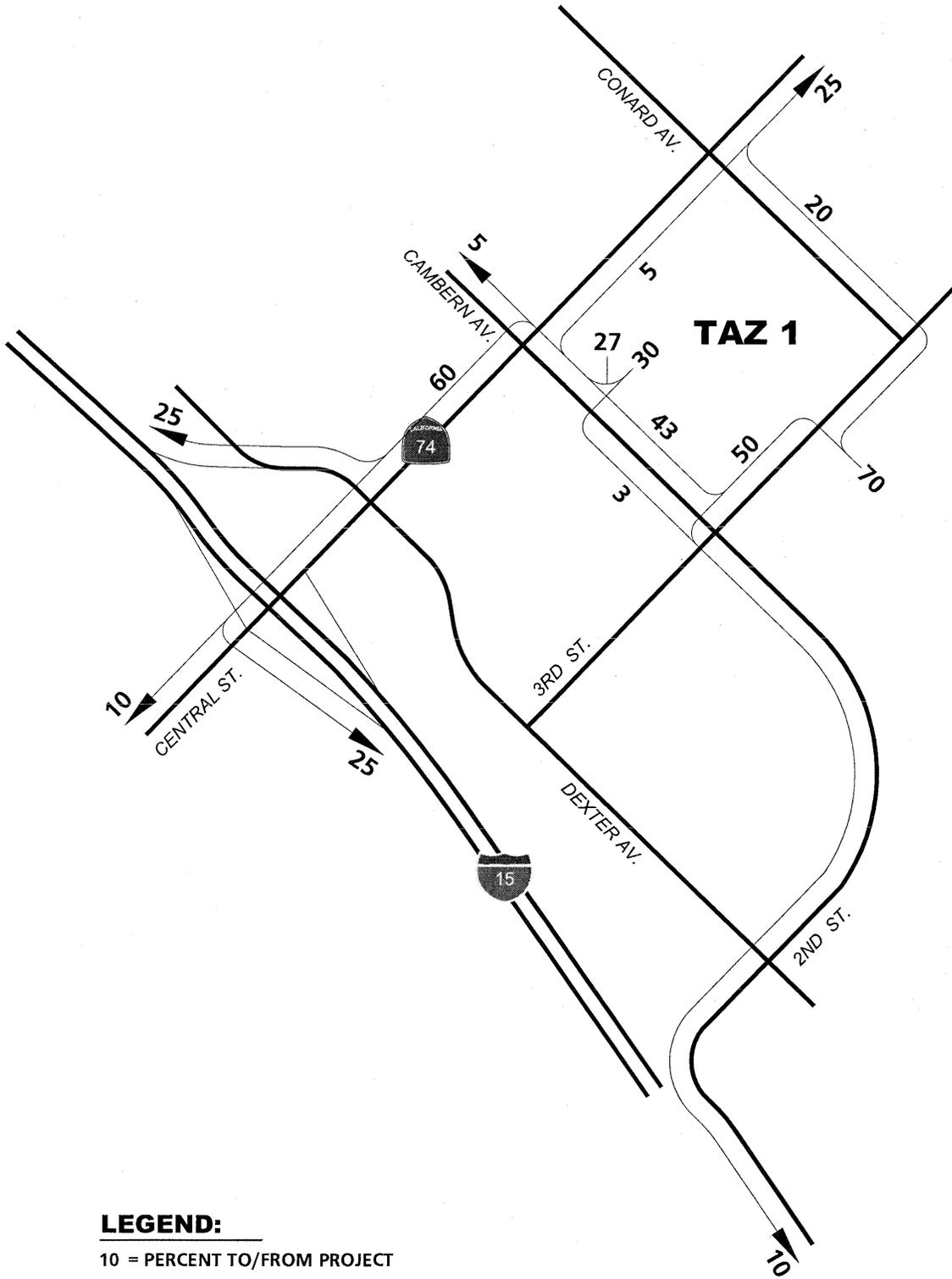


EXHIBIT 6-E
**3RD STREET ANNEXATION PROJECT
 TRIP DISTRIBUTION (TAZ 2)**

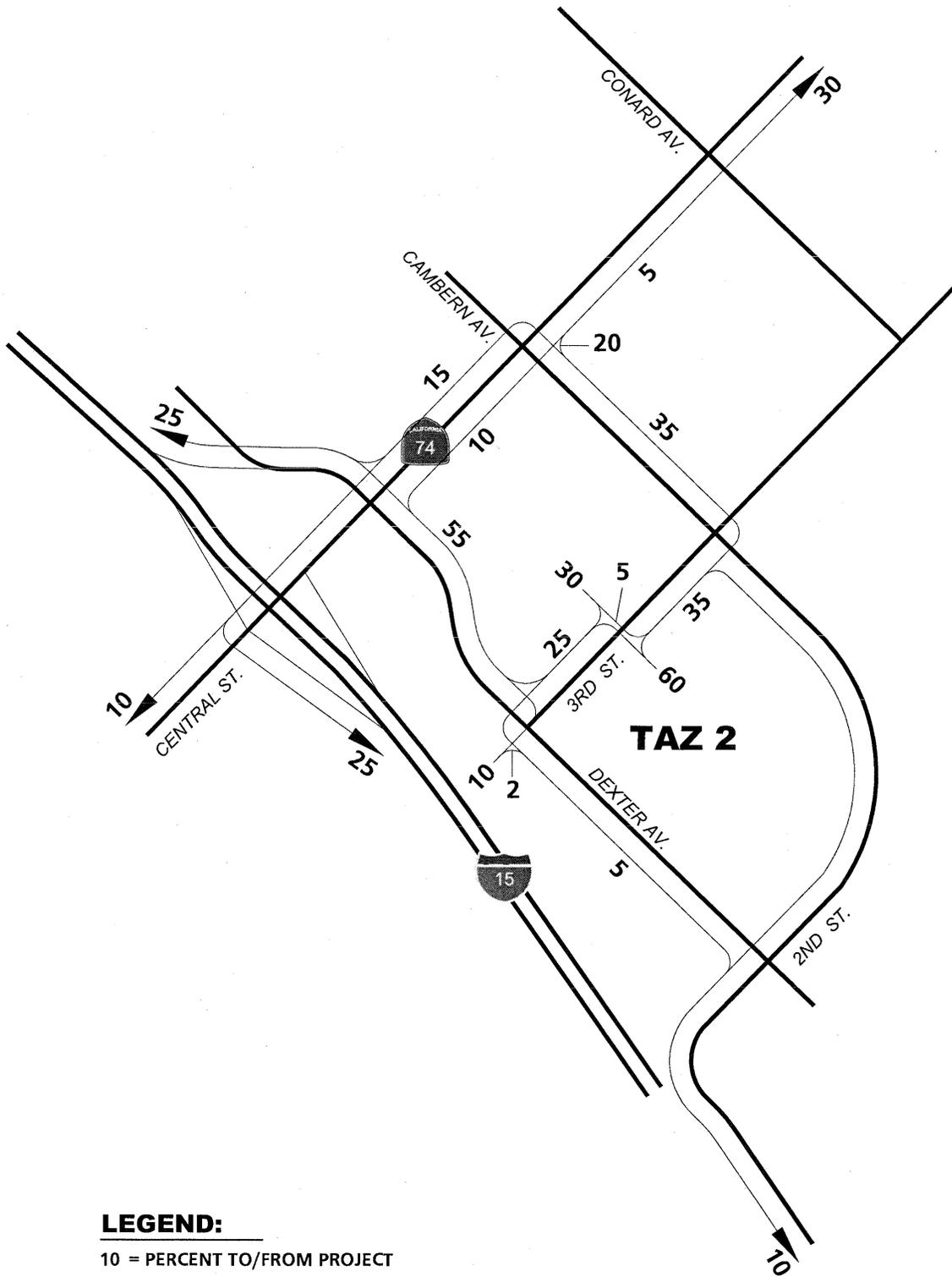


Exhibit 6-F illustrates the AM and PM project only volumes for the project, while Exhibit 6-G shows the project only ADTs. The project only volumes generated based on the ITE methodology were then compared with the model data to ensure that the final General Plan volumes represents the worst case scenario.

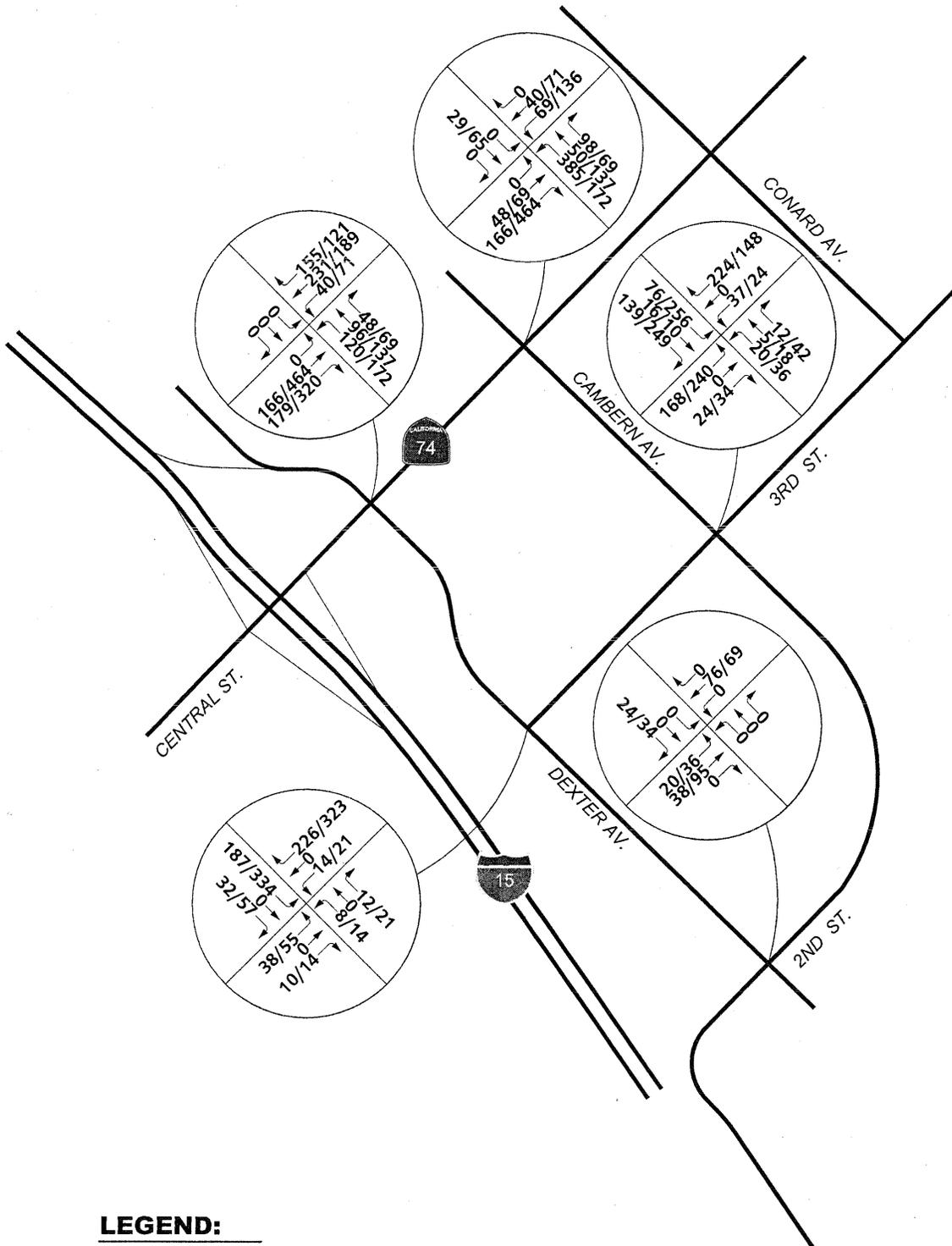
Traffic operations analysis conducted for the additional intersections indicate that all of the intersections evaluated will warrant traffic signals under Preferred General Plan conditions. All intersection will operate at acceptable level of services with the proposed improvements.

For on-site improvements, the curve radius for the alignment from 2nd Street to Camino Del Norte is currently substandard and sufficient ROW may need to be obtained by building removal. The intersection of Main Street at Camino Del Norte is closely spaced with the intersection of Main Street at the I-15 Freeway northbound and southbound ramps. Special design criteria / progression analysis will be required for the intersections due to the close spacing and physical constraints.

E. Downtown Street Grid System

The downtown area is proposed to be accommodated by a collector street system. Pottery Street, Sumner Avenue, and Heald Avenue all have 80 feet of right-of-way and can readily accommodate the collector standards. Graham Avenue is currently constructed as a Collector as well. Main Street from Graham Avenue to Lakeshore Drive will remain as a two-lane Collector. Spring Street will be widened to four lanes as a Secondary. Highway between Graham Avenue and Lakeshore Drive. It will also be widened to four lanes between Collier Avenue and Flint Street. Flint Street between Main Street and Spring Street will also be widened to four lanes. The right of way requirement for roadway

EXHIBIT 6-F 3RD STREET ANNEXATION PROJECT AM/PM PROJECT ONLY VOLUMES

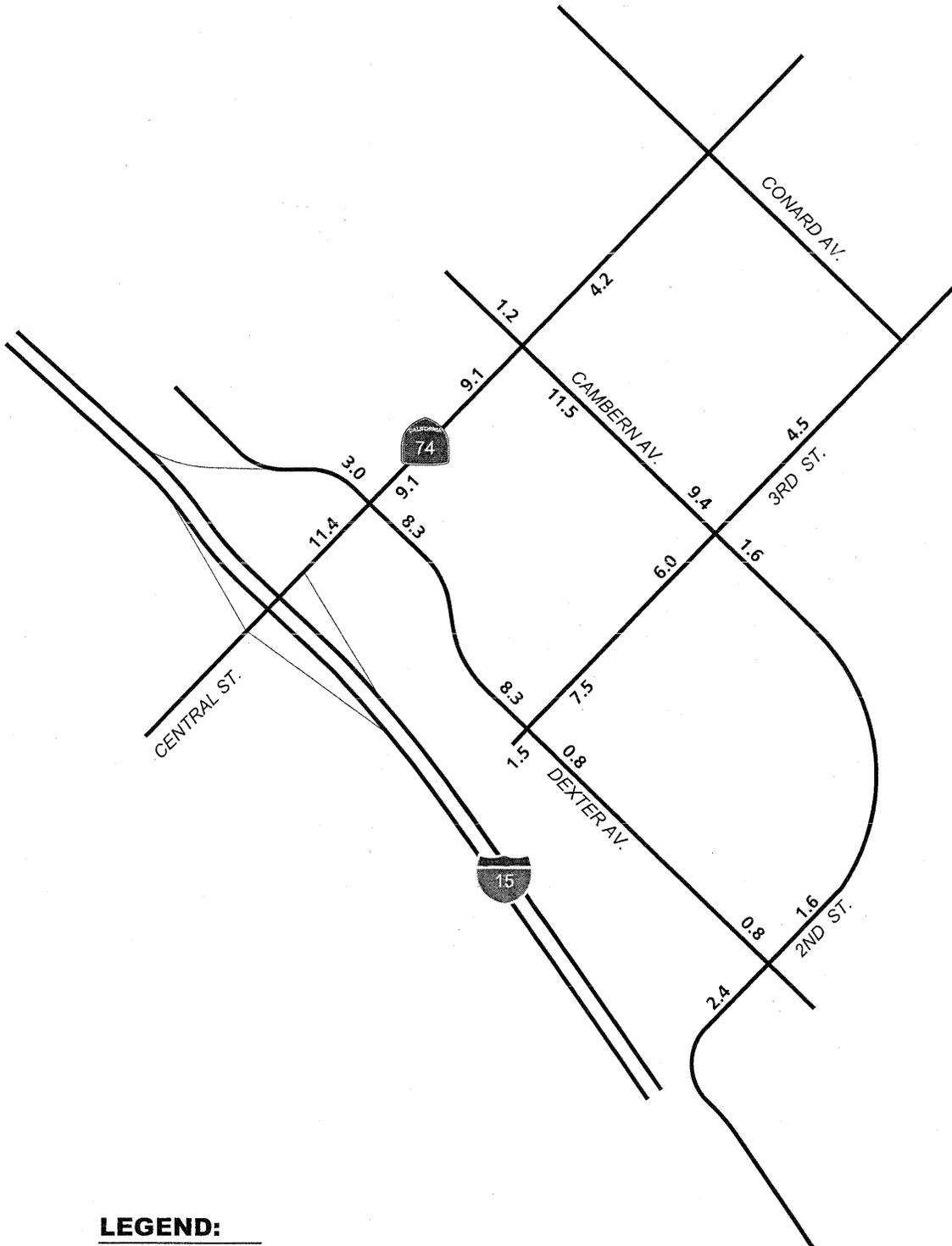


LEGEND:

XX/XX = AM/PM PEAK HOUR VOLUMES



3RD STREET ANNEXATION PROJECT ONLY AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)



widening may have possible impacts to several homes and businesses along Spring Street and Flint Street. Ellis Street will remain as a local street instead of a Collector.

In order to preserve the historical downtown area, it is recommended that the City allow LOS "E" (instead of LOS "D") as an acceptable level of services for downtown area. Any intersection operating at LOS "F" in the downtown area will be considered deficient.

F. Other Special Comments Related to the Proposed Circulation Element

1. Lakeshore Drive between Manning and Chaney is considered as an Augmented Collector (2 through lanes) with left turn access limited to three intersections due to physical constraints. The ADT volume on this roadway segment is about 19,100 vehicles. The Augmented Collector should be able to accommodate the volumes.
2. The future Olive Street interchange is outside of the City's sphere of influence area and it is not shown on the current RCIP circulation map. However, the City and the project team have agreed that based on the volumes on the adjacent interchange (Railroad Canyon Interchange and Bundy Canyon Interchange), there is a need for this additional interchange. The General Plan traffic model runs have included the Olive Street interchange and it has also shown on the proposed circulation map. A special study is recommended regarding the effects of this potential interchange.
3. As illustrated on Exhibit ES-A, the proposed Riverside Street Extension, Ramsgate Drive, El Toro Cutoff, and Nichols Road Extension will provide an alternative route for traffic from the north headed towards the I-15

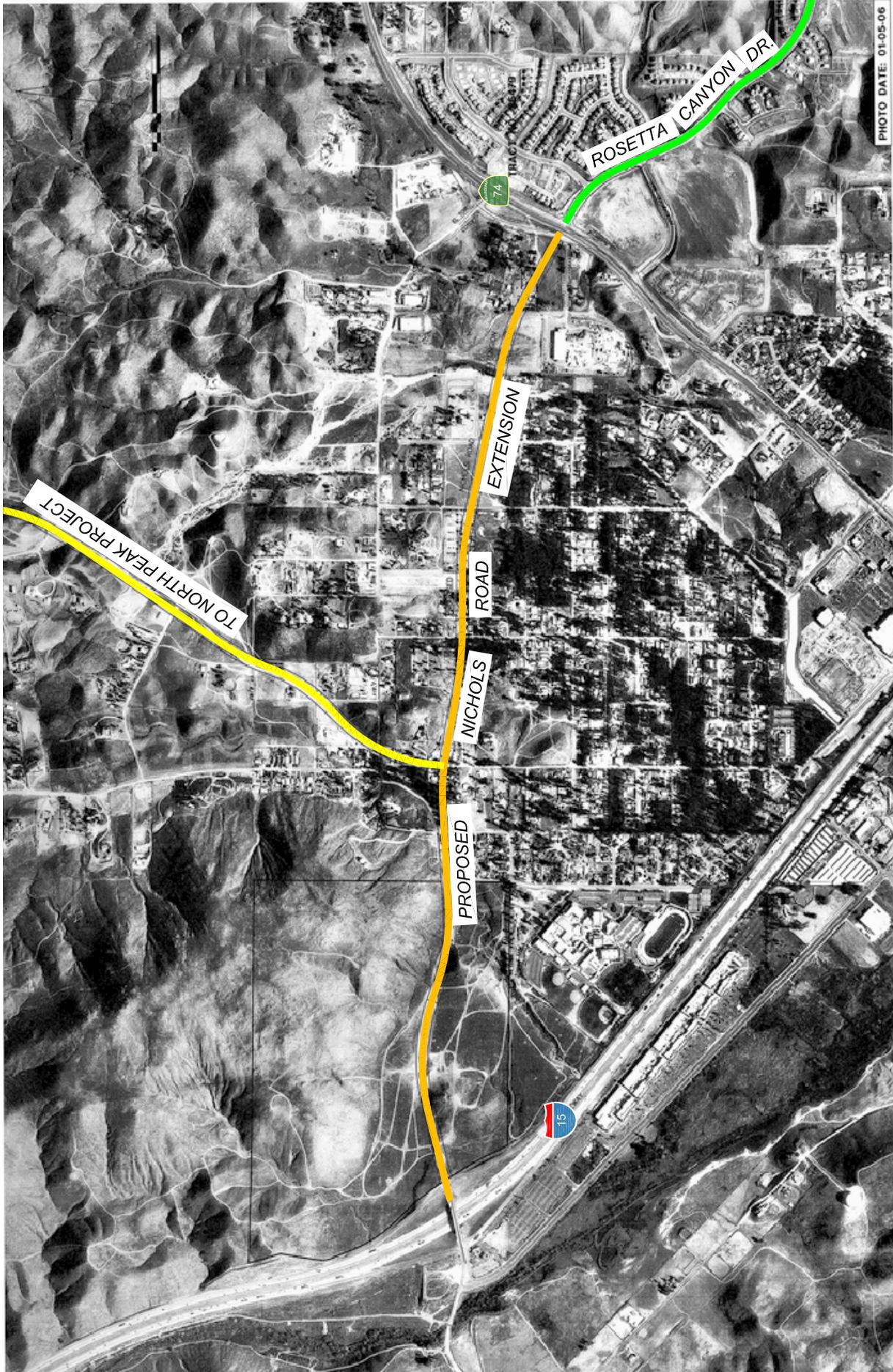
northbound Freeway. It will significantly relieve traffic on SR-74. A capital improvement project and a corridor alignment study for the alignment changes will be necessary.

In conjunction with the North Peak project along El Toro Road, Urban Crossroads, Inc. has reviewed the El Toro Road alignment provided by the North Peak Development. The alignments are generally consistent with the proposed Circulation Map with the exception of minor detail configurations at the intersection areas.

Urban Crossroads, Inc. has also reviewed Nichols Road Extension Alignment (as shown on Exhibit 6-H) proposed by Castle & Cooke. This alignment connects to Rosetta Canyon Drive to the south (instead of Riverside Street to the north). This alignment alternative will not provide traffic relief as indicated in the proposed circulation map.

4. As illustrated on Exhibit ES-A, Lost Road is proposed as a Collector (74 feet right of way) to be consistent with County of Riverside designation. However, the roadway may need to be upgraded to a four lane roadway due to the requirement of future traffic volumes. In the future, Lost Road will be an important link in the area's transportation network. As traffic increases on Railroad Canyon Road to its capacity, the traffic load on Lost Road will increase. The City's concern will be administrating the development of Lost Road. Another issue with Lost Road is that it is built to old secondary street standards in the Pardee tract (64'/84"). It is recommended that the City develop a strategy to ensure that Lost Road northeast of Grape Street to Pardee's tract is constructed to a four lane roadway.
5. City staff indicated an expectation for an even split for traffic to the north and south along the I-15 Freeway, as both anticipated growth in the Cities

EXHIBIT 6-H
NICHOLS ROAD EXTENSION ALIGNMENT PROPOSED BY CASTLE & COOKE



of Murrieta and Temecula will be a major economic engine in the next 20 years. The WRSATM run shows a 59% to 41% split for the traffic to the north and to the south, while the SCAG regional model does show a more balanced 51% to 49% split. Urban Crossroads, Inc. will continue to refine the model as appropriate to generate a more balanced distribution of traffic on the I-15 Freeway.

6. It is the City's intention to develop the proposed circulation map to show the intersection of Flint Road / Auto Center Drive at Franklin Avenue as a four-leg intersection (show on Exhibit ES-A) instead of the current three-leg intersection.

7. The County Club Heights area is very hilly and regular street standards are difficult to administer. Special street standards should be developed for this area. The following policies may need to be implemented for the internal roadways:
 - Parking on the street cannot be accommodated.
 - Minimum sight-distance must be maintained.
 - 25 miles per hour post speed limit is recommended.
 - The minimum horizontal radius of 250 feet is recommended.
 - Travel lanes should be 12 feet each direction. Shoulders should be at least 5 feet each side including curb and gutter, if needed.

8. The proposed circulation map shows that Baker Street has direct connection with Pasadena Road. Due to the jurisdictional waters and flood control constraints at the location, a special study is proposed in order to refine the proposed roadway alignment.

G. Special Concerns Related to Intersection Improvements

1. Intersection of Lake Street at Lakeshore Drive:

This intersection has 3 intersection legs with a fourth leg (eastbound leg) that is a driveway to Terra Cotta Middle School. Therefore, no improvements have been proposed for the eastbound leg (to the school parking lot).

2. Intersection of Lakeshore Drive at Riverside Drive:

The improvement will have an impact on the existing development.

3. Intersection of Ortega Highway at Grand Avenue (SR 74):

The improvement may impact the existing development on the south east corner.

4. Intersection of Collier Drive at Central Avenue (SR-74):

The proposed geometry improvement at this location is consistent with the I-15 / SR-74 Project Study Traffic Impact Study.

5. Intersection of Cambern Avenue at SR 74:

The proposed improvements at this intersection will have to avoid the development on south-west corner of the intersection.

6. Intersections of Main Street at Camino Del Norte and Main Street at the I-15 Freeway northbound ramps and I-15 southbound ramps:

The three closely spaced intersections will require improvements and signalization under General Plan conditions. Special design criteria will be required for the intersections due to physical constraints.

7. Intersection of Main Street at Graham Avenue:

This intersection requires signalization under General Plan conditions. Special signal poles will be required due to physical constraints at this location.

Intersection of Riverside Drive at Grand Avenue:

Since the intersection radius from Riverside Drive to Grand Avenue (to the east) is more than 600 feet, the major through movement is between Riverside Drive and Grand Avenue (to the east). The minor street is Grand Avenue to the west. The traffic analysis reflects the above described lane configurations.

8. Intersection of Riverside Street at SR-74:

This intersection is proposed to be a major signalized intersection along SR-74.

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7.0 CIRCULATION ELEMENT RECOMMENDATION

The transportation circulation system not only includes the roadway system, but also includes truck routes, bikeways, and the trail system for the City of Lake Elsinore. All of the Circulation Element system recommendations are addressed in this chapter.

7.1 Roadway Circulation Map

The proposed roadway circulation element is illustrated on Exhibit ES-A in the Executive Summary chapter. Exhibit 7-A illustrates the same information as Exhibit ES-A without the index numbers identifying the differences from the Currently Adopted General Plan.

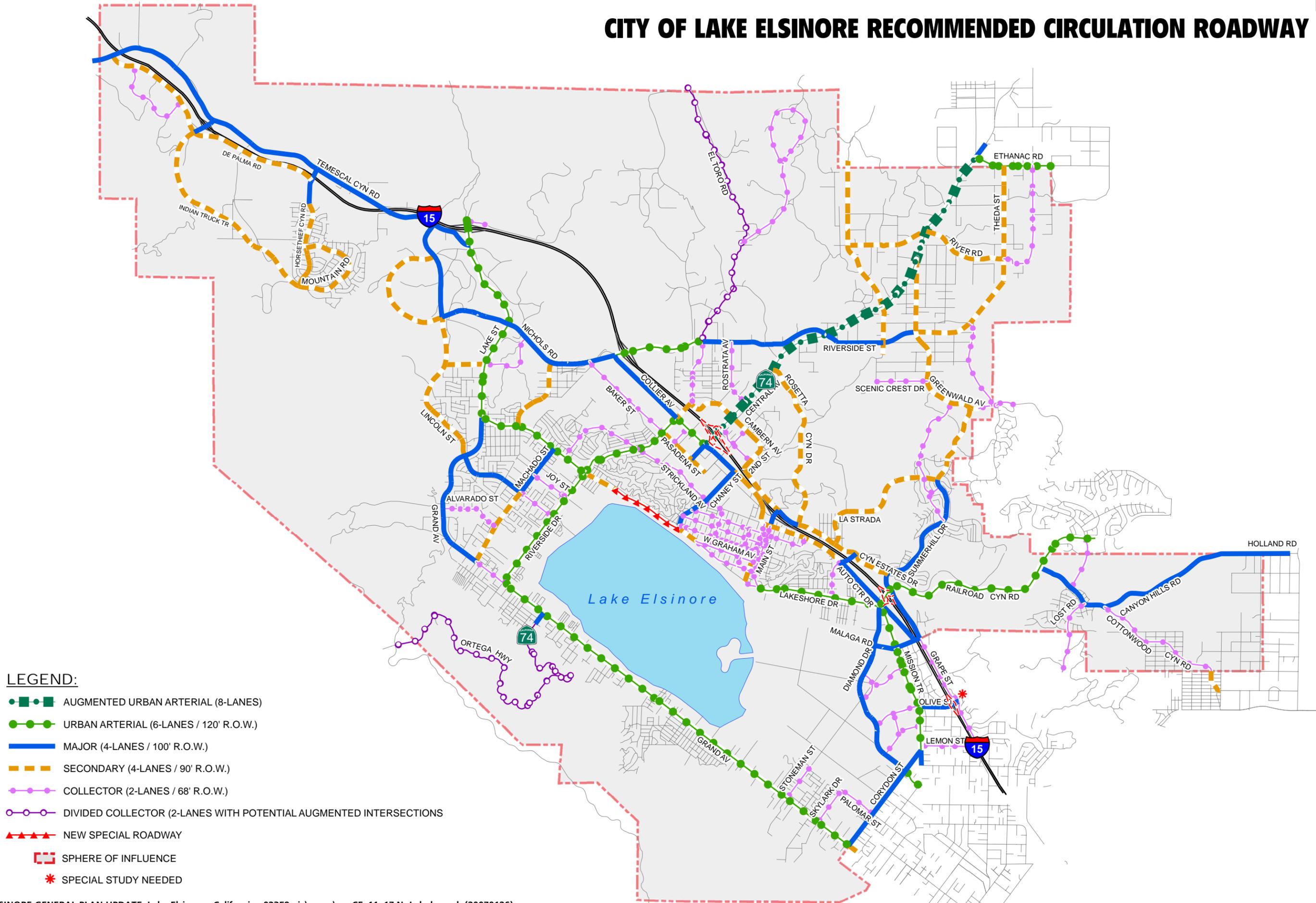
7.2 Truck Route Map

Exhibit 7-B illustrates the City of Lake Elsinore existing truck route map while Exhibit 7-C illustrates the proposed truck route map. Compared to the existing truck map, the proposed truck map includes the following changes:

- The segment of Cambern Avenue north of SR-74 to Riverside Drive Crossing to Collier Avenue is designated as a truck route.
- The downtown area truck route has been revised to limit/reduce the Main Street segment from the interchange area to Flint Street connecting to Collier Avenue. Spring Street is designated as a truck route for both northbound and southbound directions. Spring Street connects to Lakeshore Drive to the south and Collier Avenue and Flint Street to the north. The limited street and small stretch of Sumner Avenue and Main Street south of Flint Street has been eliminated from the proposed truck route map.

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CITY OF LAKE ELSINORE RECOMMENDED CIRCULATION ROADWAY SYSTEM



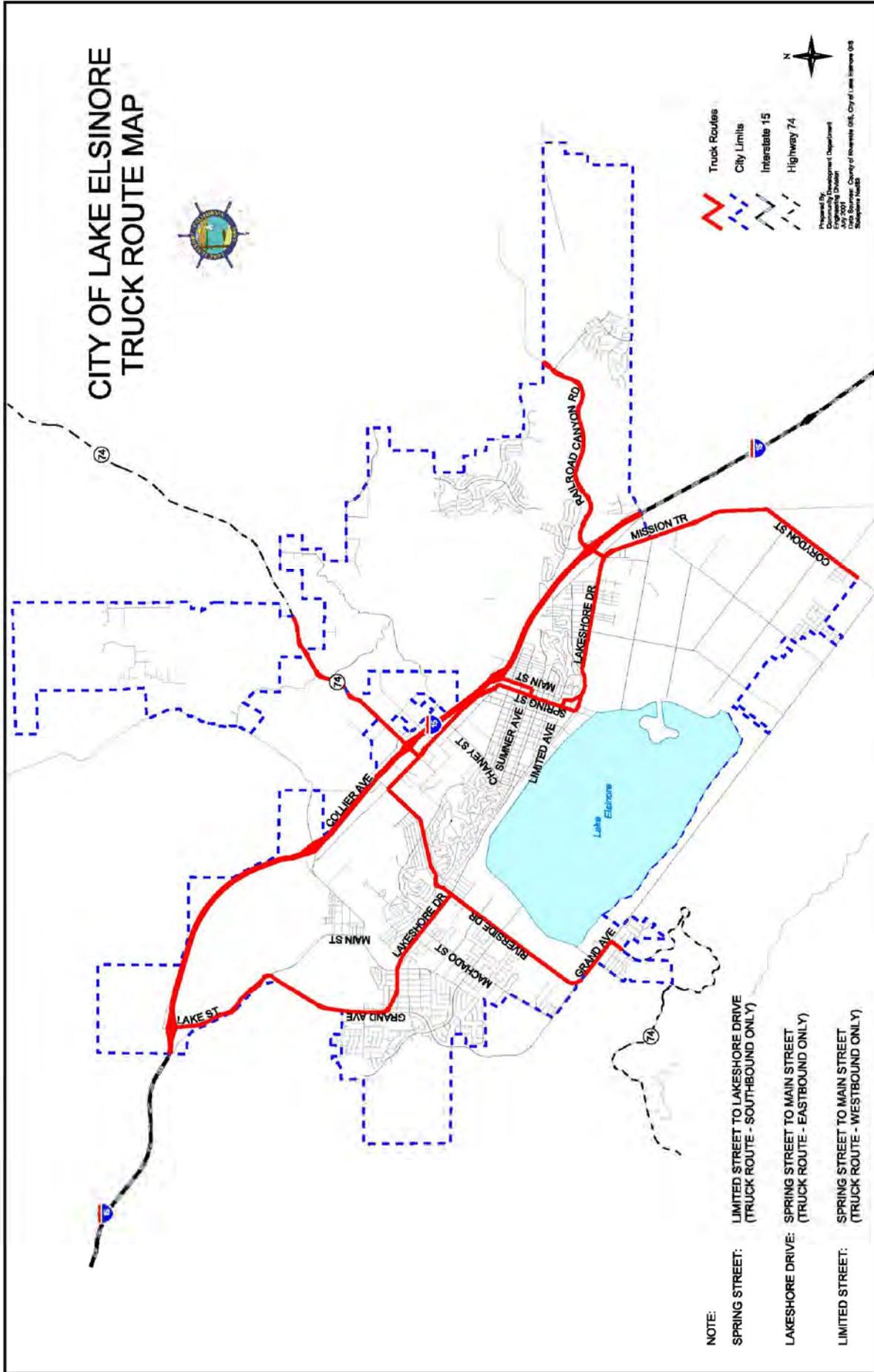
LEGEND:

- 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
- SPHERE OF INFLUENCE
- SPECIAL STUDY NEEDED



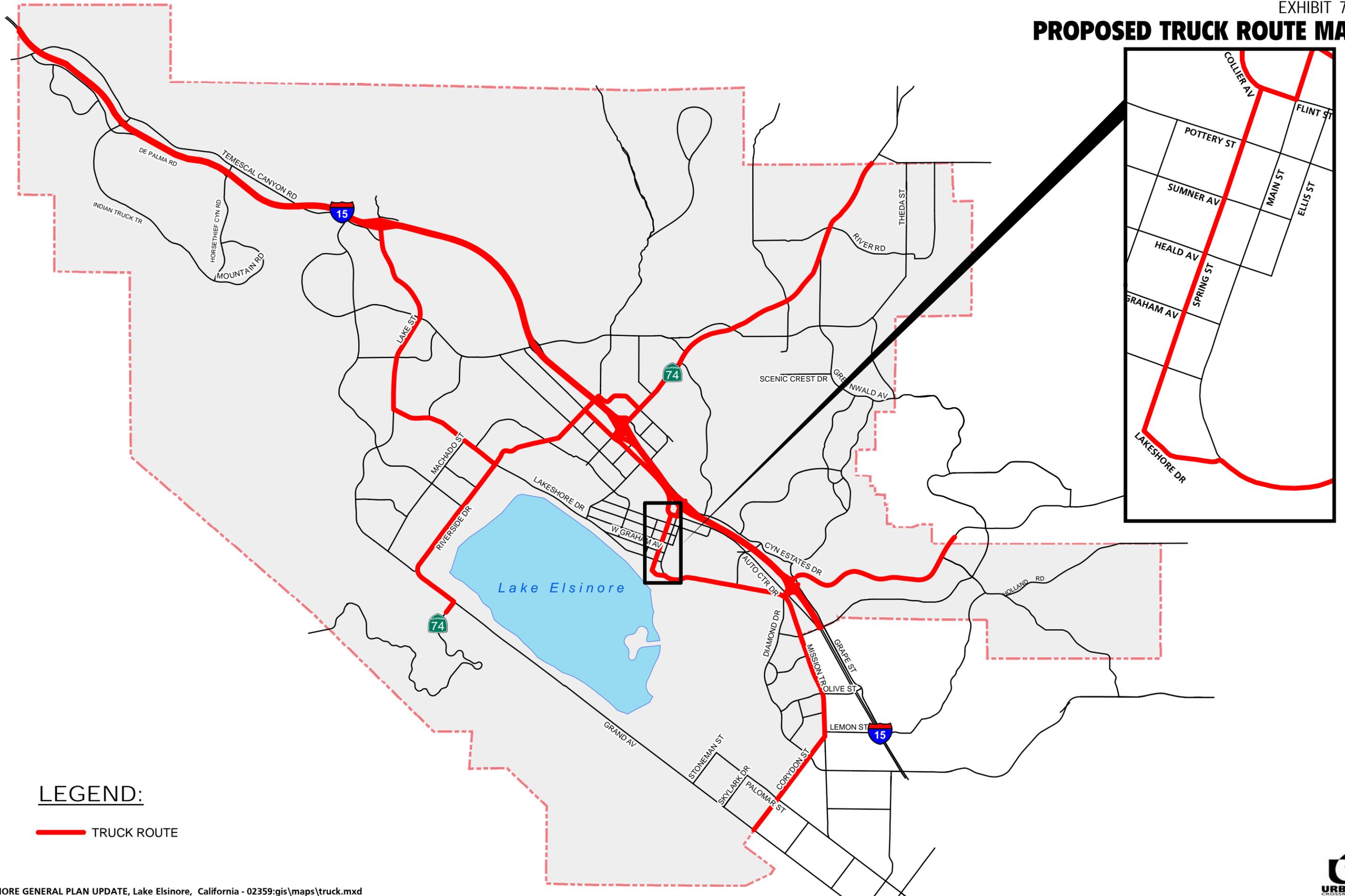
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EXHIBIT 7-B EXISTING TRUCK ROUTES



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PROPOSED TRUCK ROUTE MAP



LEGEND:

 TRUCK ROUTE



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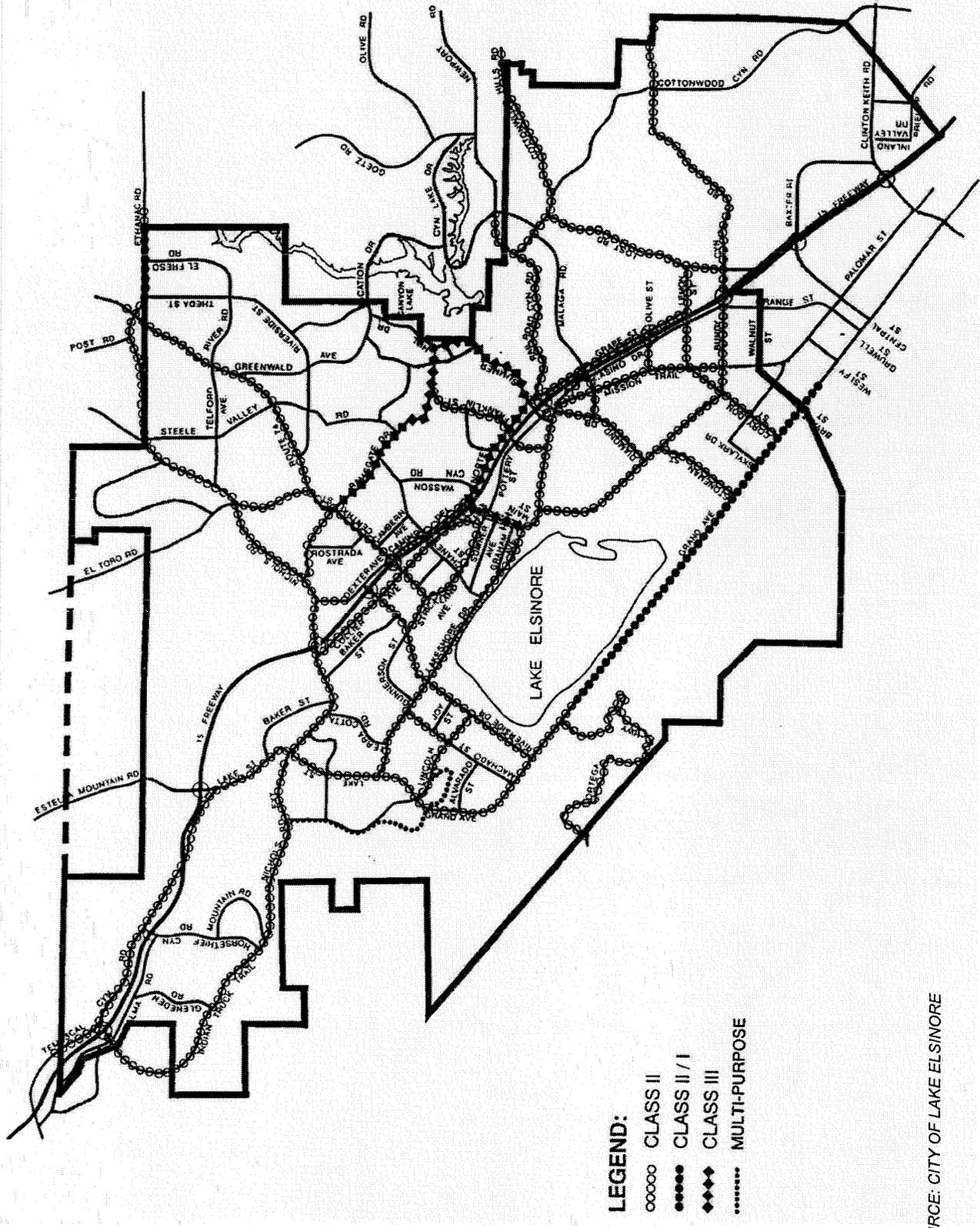
7.3 Bikeways

Exhibit 7-D illustrates the existing bikeway plan while Exhibit 7-E illustrates the proposed bikeway plan. As illustrated on Exhibit 7-D, there are four levels of bikeway classifications according to the type of right-of-way or use designated for the route. The four classifications are as follows:

- 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 which 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 which 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.

The Bikeway Plan delineates an extensive, continuous network of bicycle routes, with Class II bikeways as the principal mode of providing for bicycle travel through the city. A Class I, off-street bikeway is designated for Grand Avenue through the city's sphere as an alternative reflecting the county's plans for this area. The Class III bikeway (non-exclusive right-of-way) along Main Street, Camino Del Norte, Summer Hill Drive and Ramsgate Drive is delineated specifically to emphasize and facilitate the linkage of bicycle routes through the major specific plan areas east of Interstate 15 and the downtown area. The Multi-Purpose designation reflects the city's existing dedicated and proposed trail

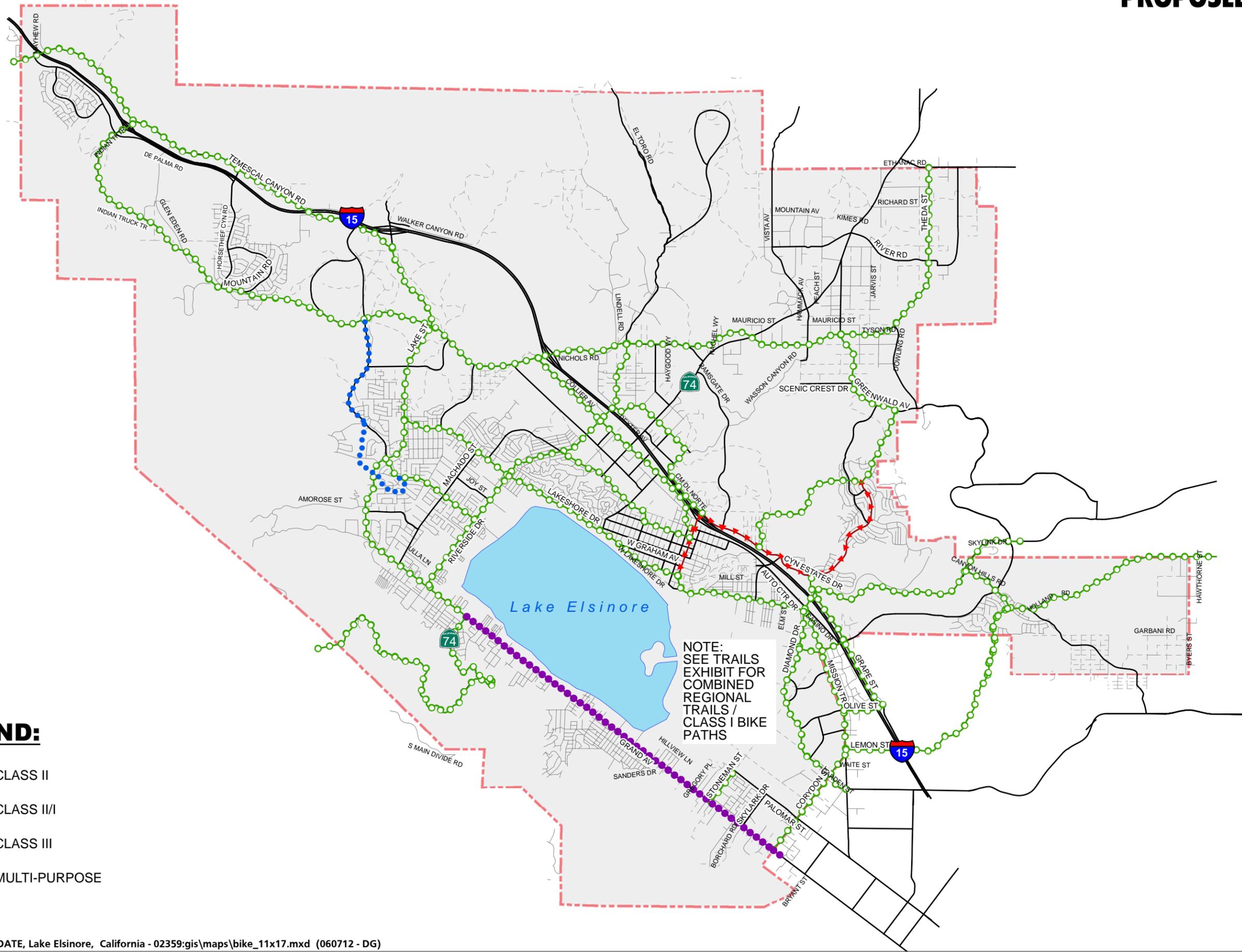
EXHIBIT 7-D CITY OF LAKE ELSINORE EXISTING BIKEWAY PLAN



SOURCE: CITY OF LAKE ELSINORE

LAKE ELSINORE GENERAL PLAN UPDATE, Lake Elsinore, California - 02359; exbikes.dwg





LEGEND:

- = CLASS II
- = CLASS III/I
- ▲-▲-▲-▲ = CLASS III
- = MULTI-PURPOSE

NOTE:
 SEE TRAILS
 EXHIBIT FOR
 COMBINED
 REGIONAL
 TRAILS /
 CLASS I BIKE
 PATHS



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system (west end) available to equestrian, pedestrian and bicycle users. The existing segments are unpaved; future sections may or may not be paved or separated depending upon design and use requirements.

Compared to the existing bike path map, the proposed bikeway map includes the following changes:

SR-74 will no longer be a Class II bikeway. As illustrated on the proposed cross-section exhibit (Exhibit ES-B), SR-74 is proposed to be an Augmented Urban Arterial with 4 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.

7.4 Trail System

Exhibit 7-F 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 is proposed to provide a trail system which connects to the regional trail system. A trail loop around the lake is also under consideration. Therefore, a conceptual alignment is depicted on Exhibit 7-F. Further detailed evaluation of potential environmental and topographic constraints will be required.

7.6 Public Transit System

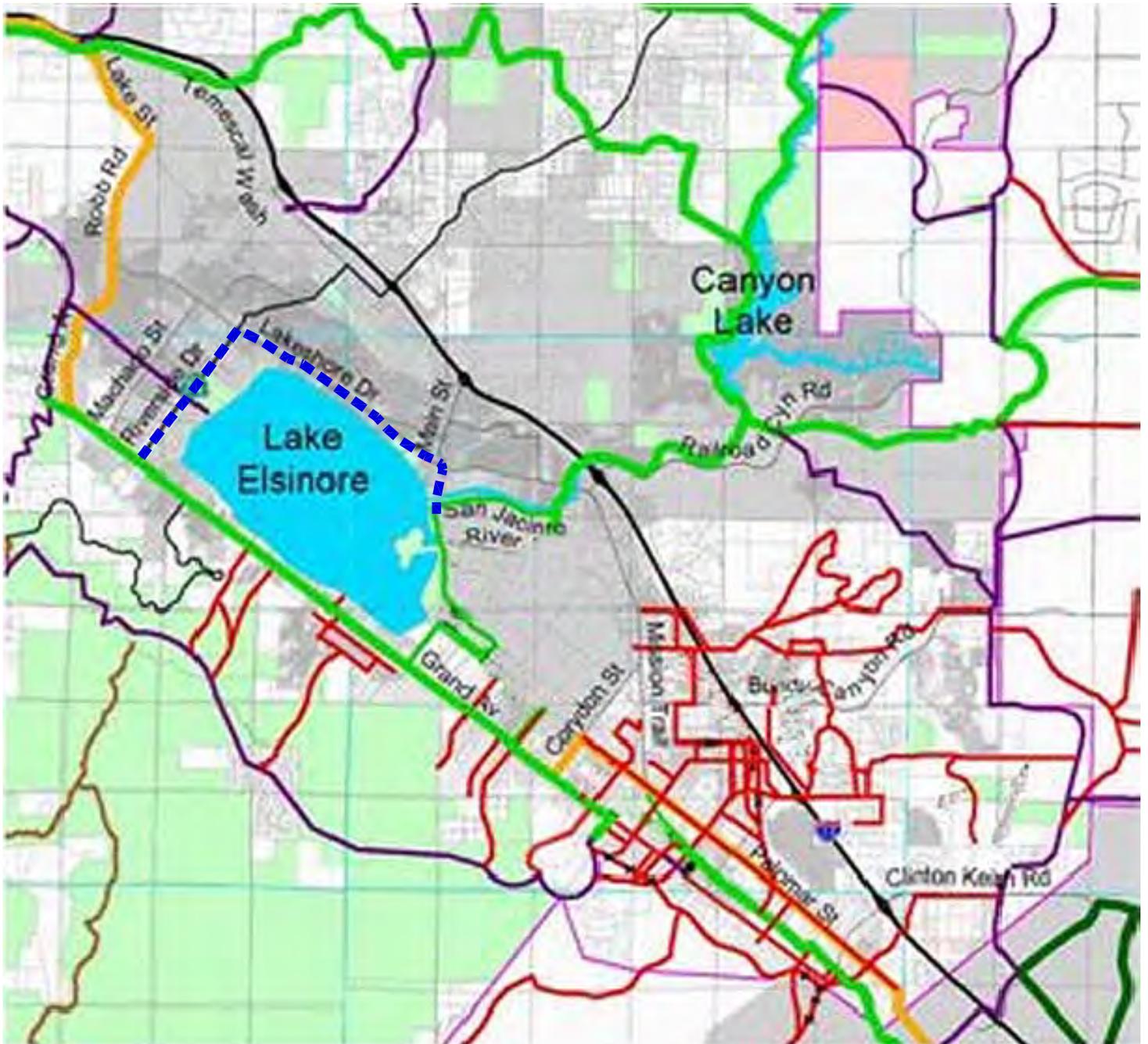
As previously shown on Exhibits 3-J, SR-74, north of the I-15 Freeway is currently served by Route 22 of the Riverside Transit Agency (RTA). The study area is also currently being served along Riverside Drive, Grand Avenue, Casino Drive, Mission Trail, Malaga Road, and Palomar Street by RTA's Routes 7 and 8. RTA's Route 40 serves Railroad Canyon Road and Newport Road.

The RTA intends to develop a transit/bus system based on the designated hierarchy roadway levels. The following four categories have been defined per the RTA:

Level I – State Highway

SR-74 is the only state highway in the City of Lake Elsinore. SR-74 is considered as the highest level of the public transit network in the City of Lake Elsinore.

ELSINORE AREA TRAILS AND CLASS 1 BIKEWAY SYSTEM



- | | | | |
|---|---|---|---------------------------|
|  | HISTORIC TRAIL |  | REGIONAL PARKS |
|  | CLASS I BIKE PATH/REGIONAL TRAIL |  | PUBLIC/QUASI-PUBLIC LANDS |
|  | REGIONAL TRAIL |  | WATER |
|  | COMMUNITY TRAIL |  | CITY |
|  | CLASS I BIKE PATH |  | AREA PLAN BOUNDARY |
|  | NATIONAL FOREST or PARK/BLM TRAILS (non-county) | | |
|  | LAKE LOOP TRAIL CONCEPT | | |



Level II – Transportation Uniform Mitigation Fee (TUMF) Route

Based on the published map for Regional System of Highways and Arterials for Western Riverside County, the TUMF network in the City of Lake Elsinore includes Bundy Canyon Road, Railroad Canyon Drive, Newport Avenue, Grand Avenue, Lake Street, Ortega, Central Avenue and Mission Trail. All of the above roads are considered as Level II roadways of the transit network.

Level III – Arterial Roadway with Four or More Lanes

Based on the proposed roadway circulation element (Exhibit ES-A), all arterial roadways with 4 or more lanes in the City of Lake Elsinore should be considered as Level III roadways of the transit network. However, the roadways with hilly terrain (e.g., Rosetta Canyon Drive, Summerhill Drive) may present difficulties for buses to access. Other alternatives of transit service are necessary for these roadways.

Level IV – Local Road

Level IV of the transit system is designated for roadways in the downtown area such as Pottery Road and Channel Road. In addition, new project areas with dense populations without four lane roadways will be accessed by Level IV roadways of the transit system.