This section describes the transportation and circulation conditions in the area surrounding the proposed project site and identifies transportation impacts associated with implementation of the proposed project. The analysis focuses on potential impacts to area intersections and roadway segments, and it also evaluates the project's consistency with the City of Elk Grove General Plan and Laguna Ridge Specific Plan. Significant transportation and circulation impacts are identified, as necessary, and mitigation measures are identified to address those impacts. The analysis in this section is based on the Traffic Impact Analysis completed by Fehr & Peers in January 2008, which is included as **Appendix D** in this EIR.

4.4.1 EXISTING SETTING

The project site is located south of Elk Grove Boulevard just east of Bruceville Road in the City of Elk Grove and consists of vacant land within the Laguna Ridge Specific Plan (LRSP) area which allows for residential and shopping center uses. The project site includes a proposal for the following land use changes:

- 20 Unit/Acre Residential (RD-20) – 15.6 acres (312 to 390 dwelling units)
- Shopping Commercial (SC) – 51.7 acres
- Medical Office Building (MOB) – 28 acres

Key roadways and intersection locations in the project vicinity studied in this EIR are shown in **Figure 4.4-1** and described below.

CIRCULATION ANALYSIS

Level of service (LOS) is a quantitative measure describing the operating condition of intersections and roadways. LOS ranges from A through F, which represents driving conditions from best to worst, respectively. In general, LOS A represents free-flow conditions with no congestion, and LOS F represents severe congestion and delay under stop-and-go conditions.

Intersections

The study intersections were analyzed using procedures and methodologies contained in the *Highway Capacity Manual* (HCM, 2000). **Table 4.4-1** displays the average control delay per vehicle for each LOS range for signalized intersections, which is based on the average delay for all vehicles passing through an intersection.

TABLE 4.4-1
LEVEL OF SERVICE DEFINITIONS FOR STUDY INTERSECTIONS

Level of Service	Signalized Intersections Average Control Delay (seconds/vehicle)
A	Less than or equal to 10.0
B	10.1 – 20.0
C	20.1 – 35.0
D	35.1 – 55.0
E	55.1 – 80.0
F	Greater than 80.0

Source: Highway Capacity Manual (Transportation Research Board, 2000)

Roadways

Roadways segments were analyzed by comparing average daily traffic volumes to capacity thresholds presented in the City of Elk Grove's *Traffic Impact Analysis Guidelines* (July 2000). Consistent with the assumptions in the City's General Plan background report, all study roadways were assumed to have moderate access control. **Table 4.4-2** shows daily volume thresholds for each LOS category for two-, four-, and six-lane roadways with moderate access control.

TABLE 4.4-2
LEVEL OF SERVICE DEFINITIONS FOR STUDY ROADWAYS

Number of Lanes[1]	Maximum Daily Volume				
	LOS A	LOS B	LOS C	LOS D	LOS E
2	10,800	12,600	14,400	16,200	18,000
4	21,600	25,200	28,800	32,400	36,000
6	32,400	37,800	43,200	48,600	54,000

Source: City of Elk Grove's Traffic Impact Analysis Guidelines, July 2000

1 Elk Grove GP Background Report shows all study roadways segments with moderate access control.

STUDY AREA

The project site is on the southeast corner of the intersection of Elk Grove Boulevard and Bruceville Road. Seven roadway segments and seven intersections were selected for analysis based on their proximity to the project site and expected usage by project traffic. **Figure 4.4-1** displays the study area roadways and location of the project. **Figure 4.4-2** displays the existing number of lanes on study roadways. All studied facilities currently operate at level of service (LOS) D or better with the exception of the Elk Grove Boulevard/SR 99 Southbound (SB) Ramps intersection, which operates at LOS E during the PM peak hour.

Study Intersections

1) Elk Grove Boulevard/Bruceville Road
2) Elk Grove Boulevard/Big Horn Boulevard
3) Elk Grove Boulevard/Laguna Springs Drive
4) Elk Grove Boulevard/Auto Center Drive
5) Elk Grove Boulevard/SR 99 Southbound (SB) Ramps
6) Elk Grove Boulevard/SR 99 Northbound (NB) Ramp
7) Elk Grove Boulevard/East Stockton Boulevard

Study Roadway Segments

1) Bruceville Road – Laguna Boulevard to Elk Grove Boulevard
2) Bruceville Road – Elk Grove Boulevard to Whitelock Parkway
3) Big Horn Boulevard – Laguna Boulevard to Elk Grove Boulevard
4) Elk Grove Boulevard – Bruceville Road to Big Horn Boulevard
5) Elk Grove Boulevard – Big Horn Boulevard to Laguna Springs Drive
6) Elk Grove Boulevard – Laguna Springs Drive to SR 99
7) Elk Grove Boulevard – SR 99 to East Stockton Boulevard

Roadway System

State Route (SR) 99 is a north-south freeway within the project vicinity with interchanges at Grant Line Road, Elk Grove Boulevard, and Laguna Boulevard. The freeway consists of two lanes in each direction from south of Grant Line Road to north of Elk Grove Boulevard, where a high occupancy vehicle (HOV) lane is added in each direction.

Bruceville Road is a north-south arterial that begins at Mack Road in the City of Sacramento and extends southerly into Elk Grove and beyond. Bruceville Road is currently four lanes (two in each direction) through its intersection with Elk Grove Boulevard; it narrows to two lanes south of Backer Ranch Road/Civic Center Drive. Bruceville Road continues as a two-lane arterial to Kammerer Road.

Elk Grove Boulevard is an east-west arterial that connects Interstate 5 (I-5) in the west with SR 99 and Grant Line Road in the east. It consists of four to six lanes. Six-lane portions include the segment between Harbour Point Drive (just east of I-5) to Laguna Lake Way and McKenna Drive (just west of Bruceville Road) to SR 99. Elk Grove Boulevard is six lanes adjacent to the project site.

Big Horn Boulevard is a four-lane arterial connecting Franklin Boulevard and Whitelock Parkway. Big Horn Boulevard is an east-west arterial from Franklin Boulevard to Bruceville Road and then bends south to connect with Whitelock Parkway.

Intersection Operations

Figure 4.4-3 displays the existing AM and PM peak hour traffic volumes at the study intersections. This figure also shows the existing lane configurations and traffic control at each intersection. As shown, all seven of the intersections are signalized. **Table 4.4-3** summarizes the results of an isolated intersection analysis. As the table indicates, the Elk Grove Boulevard/SR 99 SB Ramps intersection operates unacceptably during the PM peak hour. The analysis identified that all other intersections operate at LOS D or better during both peak hours. Refer to **Appendix D** for technical calculations.

TABLE 4.4-3
INTERSECTION CONTROL DELAY AND LEVEL OF SERVICE – EXISTING CONDITIONS

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]
1. Elk Grove Boulevard/Bruceville Road	Signal	47	D	41	D
2. Elk Grove Boulevard/Big Horn Boulevard	Signal	22	C	22	C
3. Elk Grove Boulevard/Laguna Springs Drive	Signal	8	A	14	B
4. Elk Grove Boulevard/Auto Center Drive	Signal	27	C	40	D
5. Elk Grove Boulevard/SR 99 SB Ramps	Signal	31	C	80	E
6. Elk Grove Boulevard/SR 99 NB On-Ramp	Signal	8	A	8	A
7. Elk Grove Boulevard/East Stockton Boulevard	Signal	35	C	47	D

Source: Fehr & Peers Traffic Impact Analysis, 2008

1 Overall average intersection control delay is reported in seconds per vehicle.

2 Level of service based on Highway Capacity Manual (Transportation Research Board, 2000).

Note: Shading indicates that the intersection operates unacceptably based on the significance criteria.

Roadway Segment Operations

Figure 4.4-4 shows the existing average daily traffic (ADT) volume on the study roadway segments. **Table 4.4-4** displays roadway segment daily volumes, level of service, and volume-to-capacity (V/C) ratios. As shown, Elk Grove Boulevard carries the heaviest daily volumes, ranging from 37,000 vehicles per day (VPD) to 42,000 VPD. All study roadway segments operate at LOS C or better conditions.

TABLE 4.4-4
ROADWAY LEVEL OF SERVICE – EXISTING CONDITIONS

Road Segment	Volume	Level of Service	V/C Ratio
1. Bruceville Road – Laguna Boulevard to Elk Grove Boulevard	21,700	B	0.60
2. Bruceville Road – Elk Grove Boulevard to Whitelock Parkway	24,700	B	0.69
3. Big Horn Boulevard – Laguna Boulevard to Elk Grove Boulevard	8,500	A	0.24
4. Elk Grove Boulevard – Bruceville Road to Big Horn Boulevard	40,700	C	0.75
5. Elk Grove Boulevard – Big Horn Boulevard to Laguna Springs Drive	39,500	C	0.73
6. Elk Grove Boulevard – Laguna Springs Drive to SR 99	42,000	C	0.78
7. Elk Grove Boulevard – SR 99 to East Stockton Boulevard	37,000	B	0.69

Source: Fehr & Peers Traffic Impact Analysis, 2008

Note: Level of service based on V/C thresholds established in Elk Grove General Plan.

The isolated intersection analysis used for this study does not consider the effect of vehicle queuing on intersection operations along Elk Grove Boulevard. A simulation analysis of Elk Grove corridor operations (east of Laguna Springs Drive) found that drivers experience unacceptable LOS E and F conditions and vehicle queues that routinely exceed storage and obstruct adjacent intersections. This condition is exacerbated by poor lane utilization of the eastbound and westbound through-lanes along Elk Grove Boulevard in this area. The following conditions contribute to the poor lane utilization along the corridor:

- The transition from three to two through lanes east of East Stockton Boulevard (eastbound) and west of Auto Center Drive (westbound)
- The close spacing between the ramp-terminal intersections
- The controlled eastbound Elk Grove Boulevard to northbound SR 99 on-ramp movement
- Inefficient traffic signal coordination

The City of Elk Grove has planned improvements to address these existing corridor operational deficiencies. These improvements include reconstructing the Elk Grove/SR 99 northbound interchange to include a loop onramp from East Stockton Boulevard and widening sections of Elk Grove Boulevard to improve lane utilization.

Bicycle and Pedestrian Facilities

Bicycle and pedestrian facilities exist throughout the vicinity of the project site. Crosswalks are generally provided at signalized intersections, and sidewalks exist along the frontage of most developed properties. Class II (on-street with signing and striping) bike lanes are provided on Elk Grove Boulevard, Big Horn Boulevard, and portions of Bruceville Road. A Class I bike path exists from Laguna Boulevard to Elk Grove Boulevard between Big Horn Boulevard and Laguna Springs Drive. A Class I bike path is a bike path separated from the city streets.

Transit Service

The City of Elk Grove operates fixed-route bus service (e-tran) within the project vicinity. Numerous routes are available, including Big Horn Boulevard (Route 162), Bruceville Road (Routes 156, 161), Elk Grove Boulevard (Routes 66, 70,155, 156, 304), and Laguna Springs Drive (Routes 52, 162). Routes 66, 156, 161, and 304 each have stops at the Bruceville Road/Elk Grove Boulevard intersection. Given the proximity of the site to existing transit lines, it is likely that some patrons will utilize transit service to access the project site.

4.4.2 REGULATORY FRAMEWORK

STATE

The California Department of Transportation (Caltrans) operates and maintains State Route 99 (SR 99), Interstate 5 (I-5), State Route 16 (SR 16), and State Route 160 (SR 160), which provide regional access to the City of Elk Grove and the adjacent areas. Additionally, the Caltrans Division of Planning has four major functions: the Office of Advance Planning, Regional Planning/Metropolitan Planning Organization, Local Assistance/IGR/CEQA, and System Planning Public Transportation.

The Office of System Planning Public Transportation prepares Transportation Concept Reports in coordination with the regional planning partners and other District Divisions. The Transportation Concept Reports (TCRs) are long-term planning documents which evaluate current and projected conditions along specified routes. The TCRs establish 20-year planning visions and concepts and recommend long-term improvements to achieve the concept. The TCRs also reflect the plans of the applicable Regional Transportation Planning Agencies (RTPAs, SACOG) and Metropolitan Planning Organizations (MPOs) for managing local and regional travel demand on state routes. Caltrans has established a Concept LOS for all roadways under their jurisdiction.[1] The Concept LOS assumes a 20-year horizon and that improvement to the identified facility will occur. The Concept LOS for SR 99 from Eschinger Road to Elk Grove Boulevard is LOS F and from Elk Grove Boulevard to Stockton Boulevard is LOS E.

LOCAL

City of Elk Grove General Plan

The City of Elk Grove General Plan provides the following policies to address traffic and circulation issues such as LOS standards, roadway funding, growth impacts, road standards, transit, and access. **Table 4.4-5** identifies General Plan policies for transportation and circulation

[1] Concept LOS is defined by Caltrans as the highest and best level of service that can be achieved in the 20-year planning period based on the concept facility.

that are relevant to the proposed project. While this EIR analyzes the project's consistency with the General Plan pursuant to CEQA Section 15125(d), it is the Elk Grove City Council that will make the determination of the project's consistency with the General Plan.

TABLE 4.4-5
PROJECT CONSISTENCY WITH GENERAL PLAN TRANSPORTATION AND CIRCULATION POLICIES

General Plan Policies	Consistency with General Plan	Analysis
Policy CI-13 The City shall require that all roadways and intersections in Elk Grove operate at a minimum Level of Service "D" at all times.	Yes, with mitigation	As shown in Figure 4.4-7, all study roadway segments would continue to operate acceptably with the addition of the project. Three roadway segments along Elk Grove Boulevard, between Wymark Drive and SR 99, would worsen from LOS C to LOS D conditions with the addition of traffic generated by the proposed project. The addition of trips generated by the proposed project would result in a significant impact at the Elk Grove Boulevard/SR 99 Southbound Ramps intersection. The widening of the SR 99 off-ramp at Elk Grove Boulevard is a condition of the Laguna Ridge Specific Plan, which encompasses the project. The widening of this off-ramp will restore average delay at the intersection to 81 seconds during the PM peak hour. As shown in Table 4.4.8 and 4.4.9, all other intersection and roadway operations will not be increased beyond LOS D. Under cumulative conditions, the majority of surrounding identified roadways and intersections exceed LOS D (see Table 4.4-11 and 4.4-12); however the only project-related decrease in level of service is the Elk Grove Blvd./Bruceville Road intersection. Mitigation measure MM 4.4.8 reduces the project's impact to this intersection to a less than significant level..
Policy CI-15 Development projects shall be required to provide funding or to construct roadway/intersection improvements to implement the City's Circulation Master Plan. The payment of establishing traffic impact or similar fees shall be considered to provide compliance with the requirements of this policy with regard to those facilities included in the fee program, provided that the City finds that the fee adequately funds all required roadway and intersection improvements. If payment of established fees is used to provide compliance with this policy, the City may also require the payment of additional fees if necessary to cover the fair share cost of facilities not included in the fee program.	Yes	The project will be required to pay development impact fees through the City's Capital Facilities Fee or the Elk Grove Roadway Fee. The project will also be required to pay its fair share cost toward the coordination of the Elk Grove Boulevard/SR 99 SB Ramps intersection with the Elk Grove Boulevard/East Stockton Boulevard, Elk Grove Boulevard/SR 99 NB On-Ramp, and Elk Grove Boulevard/Auto Center Drive intersections as part of the ongoing Elk Grove Boulevard Intelligent Transportation Systems (ITS) Improvements project.

General Plan Policies	Consistency with General Plan	Analysis
Policy CI-16 Where a development project is required to perform new roadway construction or road widening, the entire roadway shall be completed to its planned width from curb-to-curb prior to the operation of the project for which the improvements were constructed, unless otherwise approved by the City Engineer. Such roadway construction shall also provide facilities adequate to ensure pedestrian safety as determined by the City Engineer.	Yes	The proposed project requests a change in land use and zoning designations, but there are no development plans associated with the project at this time. Subsequent development projects on the project site will be required to construct all roadways within the project site to ultimate width, including landscape corridors, paseos, and pedestrian paths to accommodate pedestrians.
Policy CI-23 All public streets should have sufficient width to provide for parking on both sides of the street and enough remaining pavement width to provide for fire emergency vehicle access.	Yes	All future development on the project site would be required to construct all public streets within the project to meet City standards regarding width and emergency access.

4.4.3 PROJECT IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G thresholds of significance. A transportation/circulation impact is considered significant if it would result in any of the following:

1) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections).

2) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

5) Result in inadequate emergency access.

6) Result in inadequate parking capacity.

7) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Conditions without and with the project have been compared to identify significant impacts according to the following criteria specific to the project area.

Roadway System

An impact is considered significant on roadways and intersections if the project causes the facility to change from LOS D or better to LOS E or F. For facilities that are, or will be (in the cumulative conditions), operating at unacceptable levels of service without the project, an impact is considered significant if the project:

1) Increases the delay at study intersections by more than five seconds.
2) Increases the volume-to-capacity (V/C) ratio by 0.05 or more on a roadway.

Transit System

An impact is considered significant if implementation of the project will disrupt or interfere with existing or planned transit operations or transit facilities.

Bicycle/Pedestrian System

An impact is considered significant if implementation of the project will disrupt or interfere with existing or planned bicycle or pedestrian facilities.

METHODOLOGY

The analysis contained in this section is based on the *Traffic Impact Analysis for the Laguna Ridge Town Center Project* prepared by Fehr & Peers Associates in January 2008. The Traffic Impact Analysis analyzed the traffic impact of the land use reconfiguration of the proposed General Plan Amendment, Specific Plan Amendment, and Rezone. The LRSP EIR identified traffic impacts associated with the development of the project site with commercial and residential uses. The traffic impact analysis for the Laguna Ridge Town Center project addresses increase in severity or significance of impacts that were disclosed in the LRSP EIR, as well as whether there would be any new significant impacts not identified in the LRSP EIR.

Traffic operations have been quantified through the determination of "level of service" (LOS). Level of service is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment representing progressively worsening traffic conditions.

Fehr & Peers used the base year (2005) version of the SACMET regional travel demand model to estimate the geographic distribution of trips generated by the new uses included in the proposed land use reconfiguration. The SACMET distribution was then modified based on an inspection of existing travel patterns in the area and trip distribution patterns anticipated for similar projects.

EXISTING PLUS PROJECT CONDITIONS

The Laguna Ridge Town Center project includes a General Plan Amendment, Specific Plan Amendment, and Rezone to increase the commercial area on the project site, which is within the Laguna Ridge Specific Plan area. The project proposes an additional 23.2 acres of land zoned SC for a total of 79.7± acres of SC in the project area. Recently, a medical user has expressed interest in the purchase of 28 acres of SC-designated land in the Specific Plan area with the intent of developing up to 364,000 square feet of medical offices. Medical offices are an allowed use under the SC designation. This change will result in a loss of 11.8 acres of RD-10 and 12.5 acres of RD-15. Additionally, RD-20 zoning will be increased by 1.1 acres.

Table 4.4-6 shows the uses that would be permitted under the proposed General Plan Amendment, Specific Plan Amendment, and Rezone. The following analysis focuses on the traffic impacts of the new uses added by the proposed project and assumes the future purchase of 28 acres of SC-designated land for the future development of up to 364,000 square feet of medical offices. This was assumed due to the interest of the above-mentioned medical user and the fact that medical offices are a high intensity use and would account for a worst-case impact scenario compared with other uses allowed on SC-designated lands.

TABLE 4.4-6
LAGUNA RIDGE TOWN CENTER USES ANALYZED

Land Use	Existing Land Use (Acres)	Proposed Land Use (Acres)	Project Uses Analyzed
RD-10	11.8	----	----
RD-15	12.5	----	----
RD-20	14.5	15.6	1.1
SC	56.5	51.7	----
SC (Potential future medical use)	----	28.0	28.0

Source: *Fehr & Peers Traffic Impact Analysis, 2008*

Site Access

Figure 4.4-5 displays the project site and specifies the new uses proposed by the land use reconfiguration. As shown in **Figure 4.4-5**, the parcels included in the proposed project would be accessed via Wymark Drive (to the east) and Civic Center Drive (to the south), as well as a right-in/right-out access via Elk Grove Boulevard.

Trip Generation

The peak hour and daily trip generation of the proposed project is estimated using trip rates published in *Trip Generation* (Institute of Transportation Engineers, 2003). **Table 4.4-7** displays the expected trip generation. As shown, the project would generate approximately 13,300 trips per day, including 910 trips during the AM peak hour and 1,370 trips during the PM peak hour, in addition to the trips analyzed in the Laguna Ridge Specific Plan EIR.

TABLE 4.4-7
PROJECT TRIP GENERATION

Land Use	Quantity	ITE Category	Trip Rates[1]			Trips[2]		
			Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour	PM Peak Hour
Medical Offices	364,000 sq ft	ITE 720	36.13	2.48	3.72	13,151	903	1,354
Low-Rise Apartments	22 units	ITE 221	6.59	0.46	0.58	145	10	13
Total New Trips						**13,296**	**913**	**1,367**

Source: *Fehr & Peers Traffic Impact Analysis, 2008*

[1] Trip Generation, 7th Edition (ITE, 2003) was used to develop trip generation rates.

[2] No internalization of trips or passby trips was assumed in this analysis.

Figure 4.4-6 shows the expected trip distribution for land uses added by the project. As shown, 42 percent of trips are expected to be oriented to/from the northwest on Elk Grove Boulevard and Bruceville Road. Another 13 percent of trips are expected to travel south along Bruceville Road at the western boundary of the project. About 45 percent of trips would traverse east along the northern boundary the project site, along Elk Grove Boulevard or Civic Center Drive.

Traffic Forecasts

Project trips were assigned to the study roadways and intersections based on the trip generation and distribution assumptions described above. Project trips were added to the existing traffic volumes. The resulting daily roadway segment volume and level of service forecasts are shown on **Figure 4.4-7**. **Figure 4.4-8** shows AM and PM peak hour intersection traffic volume forecasts.

Levels of Service

As shown in **Figure 4.4-7**, all study roadway segments would continue to operate acceptably with the addition of the project. Three roadway segments along Elk Grove Boulevard, between Wymark Drive and SR 99, would worsen from LOS C to LOS D conditions with the addition of traffic generated by the rezone. **Table 4.4-8** displays roadway segment daily volumes, level of service, and V/C ratios under existing and existing plus project conditions. The study intersections were analyzed under existing plus project conditions using the procedures described above. **Table 4.4-9** shows the results of the isolated intersection analysis, and **Appendix D** contains the technical calculations. As shown, the addition of trips generated by the project would result in a significant impact at the Elk Grove Boulevard/SR 99 SB Ramps intersection. The following section describes mitigation measures for this impact.

TABLE 4-4-8
ROADWAY LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS

Intersection	Existing Conditions			Existing Plus Project		
	Volume	LOS[1]	V/C	Volume	LOS[1]	V/C
1. Bruceville Road – Laguna Boulevard to Elk Grove Boulevard	21,700	B	0.60	24,400	B	0.68
2. Bruceville Road – Elk Grove Boulevard to Whitelock Parkway	24,700	B	0.69	28,300	C	0.79
3. Big Horn Boulevard – Laguna Boulevard to Elk Grove Boulevard	8,500	A	0.24	9,400	A	0.26
4. Elk Grove Boulevard – Bruceville Road to Wymark Drive	40,700	C	0.75	42,700	C	0.79
5. Elk Grove Boulevard – Wymark Drive to Big Horn Boulevard	40,700	C	0.75	44,000	D	0.82
6. Elk Grove Boulevard – Big Horn Boulevard to Laguna Springs Drive	39,500	C	0.73	43,900	D	0.81
7. Elk Grove Boulevard – Laguna Springs Drive to SR 99	42,000	C	0.78	46,800	D	0.87
8. Elk Grove Boulevard – SR 99 to East Stockton Boulevard	37,000	B	0.69	39,200	C	0.73

Source: *Fehr & Peers Traffic Impact Analysis, 2008*

[1] *Level of service based on V/C thresholds established in Elk Grove General Plan*

TABLE 4.4-9
INTERSECTION CONTROL DELAY AND LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS

Intersection	Traffic Control	Existing Conditions				Existing Plus Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]
1. Elk Grove Boulevard /Bruceville Road	Signal	47	D	41	D	51	D	44	D
2. Elk Grove Boulevard/Big Horn Boulevard	Signal	22	C	22	C	33	C	34	C
3. Elk Grove Boulevard /Laguna Springs Drive[3]	Signal	8	A	14	B	9	A	13	B
4. Elk Grove Boulevard /Auto Center Drive	Signal	27	C	40	D	26	C	46	D
5. Elk Grove Boulevard /SR 99 SB Ramps	Signal	31	C	80	E	47	D	**124**	**F**
6. Elk Grove Boulevard/SR 99 NB On-Ramp	Signal	8	A	8	A	8	A	9	A
7. Elk Grove Boulevard/East Stockton Boulevard	Signal	35	C	47	D	37	D	51	D

Source: Fehr & Peers Traffic Impact Analysis, 2008

1 Overall average intersection control delay is reported in seconds per vehicle.

2 Level of service based on Highway Capacity Manual (Transportation Research Board, 2000).

3 Laguna Springs Drive is assumed to be improved to a four-legged intersection under existing plus project conditions in order to provide project access.

Note: Shading indicates that the intersection operates unacceptably based on the significance criteria. Bold indicates a significant impact.

PROJECT IMPACTS AND MITIGATION MEASURES

Elk Grove Boulevard/SR 99 Southbound Ramps Intersection

Impact 4.4.1 The addition of project traffic to existing traffic would increase the average delay at the Elk Grove Boulevard/SR 99 Southbound Ramps intersection by more than five seconds. Since this intersection operates unacceptably (LOS E) under existing conditions, this is considered a **significant** impact.

As shown in **Table 4.4-9** the Elk Grove Boulevard/SR 99 Southbound Ramps intersection operates at LOS E in the PM peak under existing conditions. The Elk Grove Boulevard/SR 99 Southbound Ramps intersection is estimated to operate at LOS F with implementation of the proposed project. Conceptual development envisioned for the site would cause this intersection to operate at a LOS F in the PM peak hour with the addition of traffic generated by conceptual development. This would exacerbate existing unacceptable operations at the Elk Grove Boulevard/SR 99 Southbound Ramps.

The Laguna Ridge Specific Plan EIR (SCH# 2000082139) identified that the LRSP would have a significant impact on operations at this intersection and identified mitigation measure MM 4.2.2e to address the impact. The widening of the SR 99 off-ramp at Elk Grove Boulevard is under construction as a condition of the Laguna Ridge Specific Plan. The widening of this off-ramp will restore average delay at the intersection to 81 seconds during the PM peak hour. This is within five seconds of the "no project" or existing delay. Therefore, this impact is considered **less than significant**.

Mitigation Measures

None required.

Elk Grove Boulevard intersection with Bruceville Road, Big Horn Boulevard, Laguna Springs Drive, Auto Center Drive, SR 99 Northbound Ramps, and East Stockton Boulevard

Impact 4.4.2 With the additional traffic of the proposed project, Elk Grove Boulevard intersections with Bruceville Road, Big Horn Boulevard, Laguna Springs Drive, Auto Center Drive, SR 99 Northbound Ramps, and East Stockton Boulevard would continue to operate acceptably at LOS D or better in the AM and PM peak hour. This impact is considered **less than significant**.

As shown in **Table 4.4-9**, all intersections would operates at LOS D or above in the PM peak hour.

The project will cause the Elk Grove/East Stockton Boulevard intersection to worsen from a LOS C to a LOS D in the AM peak hour. All other Elk Grove Boulevard intersections studied would continue to operate in both the AM and PM peak hours at the same LOS as with the existing conditions. General Plan Policy CI-13 requires that the City shall require that all roadways and intersections in Elk Grove operate at a minimum LOS D at all times. These project intersections would still operate acceptably at LOS D or better during both peak hours. Therefore, the project traffic impact at the Elk Grove Boulevard intersections with Bruceville Road, Big Horn Boulevard, Laguna Springs Drive, Auto Center Drive, SR 99 Northbound Ramps, and East Stockton Boulevard is considered **less than significant**.

Mitigation Measure

None required.

Potential to Exceed an Established LOS on Roadway Segments

Impact 4.4.3 The addition of project traffic to existing traffic would increase the average delay along roadway segments within the project area. Since these roadways operate at an acceptable (LOS D) under existing conditions, this is considered to be a **less than significant** impact.

As shown in **Figure 4.4-7**, all study roadway segments would continue to operate acceptably with the addition of the project. Three roadway segments along Elk Grove Boulevard, between Wymark Drive and SR 99, would worsen from LOS C to LOS D conditions with the addition of traffic generated by the rezone. **Table 4.4-8** displays roadway segment daily volumes, level of service, and V/C ratios under existing and existing plus project conditions. As mentioned above, General Plan Policy CI-13 requires a LOS D at all times along roadways and intersections in Elk Grove. These project roadway segments would still operate at an acceptable LOS D or better during both peak hours; therefore, this impact is considered to be **less than significant**.

Mitigation Measures

None required.

Potential Conflicts with Pedestrian and Bicycle Uses

Impact 4.4.4 Implementation of the proposed project would have the potential to create conflicts between project traffic and pedestrians/bicycles. This is considered a **less than significant** impact.

The proposed project is located within the Laguna Ridge Specific Plan. The LRSP EIR identified this impact as 4.2.2 and concluded that this impact would be less than significant. The LRSP includes provisions for bicycle and pedestrian facilities, which are identified in the *Final Environmental Impact Report for the 2010 Sacramento City/County Bikeway Master Plan* (July 1993). Major and minor arterials, commercial streets, and primary residential streets within the Specific Plan area are required to have detached sidewalks separated from the roadway by landscaped planters. Major and minor arterials and commercial streets are required to have on-street Class II bike lanes. Future development of the project site would be required to adhere to these standards. Therefore, the proposed project would not disrupt or interfere with existing or planned bicycle and pedestrian facilities. This impact is considered **less than significant**.

Mitigation Measures

None required.

Potential Conflicts with City Transit System

Impact 4.4.5 Implementation of the proposed project would have the potential to create conflicts between project traffic and the City transit system. This is considered a **less than significant** impact.

The proposed project is located within the Laguna Ridge Specific Plan. The LRSP EIR identified this impact as 4.2.8 and included MM 4.2.8 would reduce the impact to less than significant. Regional Transit (RT) maintains a 20-year master plan of transit facilities for the Sacramento region. This plan and the City's General Plan show that feeder bus service will be provided on (1) Elk Grove Boulevard between SR 99 and the UPRR, and (2) Bruceville Road between Poppy Ridge Road and Laguna Boulevard. All major arterial and collector streets in the Specific Plan area are required to be designed to accommodate transit facilities such as turnouts, bus stops, and shelters. Bus turnouts are required to be provided on all arterial streets within the Specific Plan. The project would not disrupt or interfere with existing or planned transit operations or facilities of the City of Elk Grove e-tran. Therefore, this impact is considered to be **less than significant**.

Mitigation Measures

None required.

4.4.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

TRAFFIC MODEL ASSUMPTIONS AND FORECASTING METHODOLOGIES

Weekday and peak hour traffic volume forecasts under cumulative conditions were developed for study roadways and intersections using a modified version (v.01) of the SACMET regional travel demand model. This version of SACMET contains the latest land uses for the Laguna Ridge Specific Plan, Sutter Health Elk Grove campus, the Southeast Policy Area, and Elk Grove Marketplace retail parcels.

This version of the SACMET model also assumes full buildout of the roadway network identified in the City of Elk Grove General Plan (refer to **Figure 4.4-9** for the cumulative roadway network). Key roadway improvements within the project vicinity are identified below:

- Bruceville Road constructed as a six-lane arterial from Kammerer Road to north of Big Horn Boulevard
- Laguna Springs Drive constructed as a four-lane arterial from Elk Grove Boulevard to Laguna Boulevard
- Big Horn Boulevard constructed as a four-lane arterial from Elk Grove Boulevard to Kammerer Road
- Elk Grove Boulevard widened to six lanes from west of Bruceville Road to the Elk Grove Boulevard/East Stockton Boulevard intersection.

CUMULATIVE NO PROJECT CONDITIONS

Traffic Forecasts

The cumulative "no project" traffic volume forecasts for daily, AM peak hour, and PM peak hour conditions were developed by adding the difference between the cumulative and base year traffic model forecasts to the existing count. In some instances, modifications to the traffic model's forecasts were necessary to more accurately forecast the amount of traffic entering/exiting specific parcels (e.g., the existing Wal-Mart center on Elk Grove Boulevard) for which the trip generation characteristics are known.

Figure 4.4-10 displays the daily roadway segment traffic volume and level of service forecasts under cumulative no project conditions. **Table 4.4-11** identifies cumulative LOS conditions for study roadway segments under no project and with project conditions. **Figure 4.4-11** shows the cumulative no project peak hour traffic forecasts and lane configurations at study intersections. **Table 4.4-12** identifies cumulative LOS conditions for study intersections under no project and with project conditions.

CUMULATIVE PLUS PROJECT CONDITIONS

Trip Generation

Similar to existing plus project conditions, the peak hour and daily trip generation of the project under cumulative conditions was estimated using trip rates published in *Trip Generation* (Institute of Transportation Engineers, 2003). **Table 4.4-10** displays the expected trip generation. As the table shows, the proposed land use reconfiguration would generate approximately 12,200 daily trips, including 880 trips during the AM peak and 260 trips during the PM peak. The total number of new external trips generated by the project is slightly lower under cumulative conditions than under existing conditions. This is because cumulative conditions assume buildout of the Laguna Ridge Specific Plan which provides opportunities for trip internalization (e.g., trip-making which remains internal to the site and does not use external roadways).

TABLE 4.4-10
PROJECT TRIP GENERATION – CUMULATIVE CONDITIONS

Land Use	Quantity	ITE Category	Trip Rates[1]			Trips		
			Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour	PM Peak Hour
Medical Offices	364,000 sq feet	ITE 720	36.13	2.48	3.72	13,151	903	1,354
Low-Rise Apartments	22 units	ITE 221	6.59	0.46	0.58	145	10	13
					Gross Trips	13,296	913	1,367
					Internal Trips[2]	(1,064)	(37)	(109)
					Total New Trips	12,233	876	1,257

Source: *Fehr & Peers Traffic Impact Analysis, 2008*

[1] Trip Generation, 7th Edition (ITE, 2003) was used to develop trip generation rates.

[2] Some trips are internalized under cumulative plus project conditions due to the buildout of other Laguna Ridge Town Center uses.

Trip Distribution

Fehr & Peers used the following sources to develop the geographic distribution of trips generated by the project:

- Project trip distribution forecasted in SACMET cumulative year model when project land uses are added to the network
- Survey of trip distribution for similar projects near to the study area
- Input by City staff

Figure 4.4-12 shows the expected trip distribution for the project under cumulative conditions. As shown, 36 percent of trips are expected to be oriented to/from the northwest on Elk Grove Boulevard and Bruceville Road. Another 15 percent of trips are expected to head south along Bruceville Road. About half of the trips generated by the proposed land use reconfiguration would head east along Elk Grove Boulevard or Civic Center Drive.

Traffic Forecasts

The cumulative "plus project" traffic forecasts for daily, AM peak hour, and PM peak hour conditions were developed by manually assigning project trips to the cumulative roadway network using the trip distribution shown in **Figure 4.4-12**. Project trips were then added to the traffic volumes forecasted under cumulative "no project" conditions. **Figure 4.4-13** displays the daily roadway segment volume and level of service forecasts under cumulative "plus project" conditions. **Figure 4.4-14** shows cumulative "plus project" peak hour traffic forecasts and lane configurations at intersections.

Levels of Service

Under cumulative "no project" conditions, the roadway segments along Elk Grove Boulevard west of Big Horn Boulevard and east of Laguna Springs Drive would operate unacceptably. As shown in **Table 4.4-11**, the addition of project trips would exacerbate unacceptable conditions and increase the V/C by 0.05 or more on the following segment:

- Elk Grove Boulevard – Laguna Springs Drive to SR 99 – LOS F conditions exacerbated

TABLE 4.4-11
ROADWAY LEVEL OF SERVICE – CUMULATIVE CONDITIONS

Roadway	Cumulative No Project Conditions			Cumulative Plus Project Conditions		
	Volume	LOS[1]	V/C	Volume	LOS[1]	V/C
1. Bruceville Road – Laguna Boulevard to Elk Grove Boulevard	45,500	D	0.84	47,600	D	0.88
2. Bruceville Road – Elk Grove Boulevard to Whitelock Parkway	28,400	A	0.53	31,100	A	0.58
3. Big Horn Boulevard – Laguna Boulevard to Elk Grove Boulevard	30,000	D	0.83	31,700	D	0.88
4. Elk Grove Boulevard – Bruceville Road to Wymark Drive	61,500	E	0.98	63,200	F	1.00
5. Elk Grove Boulevard – Wymark Drive to Big Horn Boulevard[2]	60,000	E	0.95	62,800	E	1.00
6. Elk Grove Boulevard – Big Horn Boulevard to Laguna Springs Drive	48,700	C	0.77	51,100	D	0.81
7. Elk Grove Boulevard – Laguna Springs Drive to SR 99	77,000	F	1.43	**79,800**	**F**	**1.48**
8. Elk Grove Boulevard – SR 99 to East Stockton Boulevard	50,900	E	0.94	52,700	E	0.98

Source: *Fehr & Peers Traffic Impact Analysis, 2008*

[1] *Level of service based on V/C thresholds established in Elk Grove General Plan*

[2] *Increase in V/C ratio is 0.044, less than 0.05 V/C threshold for a significant impact as established in the General Plan.*

Note: *Shading indicates that the segment operates unacceptably based on the significance criteria. Bold indicates a significant impact.*

The study intersections were analyzed under cumulative conditions using the procedures described above. **Table 4.4-12** shows the results of the isolated intersection analysis. Technical calculations are provided in **Appendix D**. As shown, the addition of project trips would add more than five seconds of delay and impact the following study intersections:

- Elk Grove Boulevard/Bruceville Road
- Elk Grove Boulevard/Big Horn Boulevard
- Elk Grove Boulevard/Laguna Springs Drive
- Elk Grove Boulevard/Auto Center Drive
- Elk Grove Boulevard/SR 99 Southbound Ramps
- Elk Grove Boulevard/East Stockton Boulevard

TABLE 4.4-12
INTERSECTION CONTROL DELAY AND LEVEL OF SERVICE – CUMULATIVE CONDITIONS

Intersection	Traffic Control	Cumulative No Project Conditions				Cumulative Plus Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]
1. Elk Grove Boulevard /Bruceville Road	Signal	95	F	106	F	**102**	**F**	**122**	**F**
2. Elk Grove Boulevard /Big Horn Boulevard	Signal	50	D	69	E	**60**	**E**	**81**	**F**
3. Elk Grove Boulevard /Laguna Springs Drive[3]	Signal	110	F	154	F	**117**	**F**	**173**	**F**
4. Elk Grove Boulevard/Auto Center Drive	Signal	158	F	117	F	163	F	**134**	**F**
5. Elk Grove Boulevard/SR 99 SB Ramps	Signal	102	F	132	F	**108**	**F**	**152**	**F**
6. Elk Grove Boulevard/SR 99 NB On-Ramp	Signal	23	C	38	D	25	C	43	D
7. Elk Grove Boulevard/East Stockton Boulevard	Signal	87	F	79	E	**94**	**F**	**90**	**F**

Source: *Fehr & Peers Traffic Impact Analysis, 2008*

[1] *Overall average intersection control delay is reported in seconds per vehicle.*

[2] *Level of service based on Highway Capacity Manual (Transportation Research Board, 2000).*

[3] *This intersection is improved to include four legs under existing plus project conditions.*

Note: *Shading indicates that the intersection operates unacceptably based on the significance criteria. Bold indicates a significant impact.*

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Operations on Elk Grove Boulevard between Laguna Springs Drive and SR 99 and between Wymark Drive and Big Horn Boulevard

Impact 4.4.6 The addition of project traffic to cumulative volumes would increase the volume to capacity ratio on Elk Grove Boulevard between Laguna Springs Drive and SR 99 and between Wymark Drive and Big Horn Boulevard by at least 0.05. Since these roadway segments currently operate unacceptably

(LOS F and LOS E respectively) under cumulative no project conditions, the project would have a **cumulatively considerable** contribution to this **significant and unavoidable** impact.

Table 4.4-11 compares roadway segment LOS and volume to capacity ratio under cumulative conditions throughout the project vicinity. As shown in **Table 4.4-11**, the addition of traffic associated with conceptual development allowed under the proposed project would exacerbate the unacceptable LOS on Elk Grove Boulevard between Laguna Springs Drive and SR 99 and between Wymark Drive and Big Horn Boulevard. The road segment between Laguna Springs Drive and SR 99 operates at LOS F under cumulative conditions. The road segment between Wymark Drive and Big Horn Boulevard operates at LOS E under cumulative conditions. With implementation of the proposed project, Elk Grove Boulevard between Laguna Springs Drive and SR 99 is estimated to continue to operate at LOS F yet with an increase in V/C ratio more than the 0.05 V/C threshold. Elk Grove Boulevard between Wymark Drive and Big Horn Boulevard is estimated to continue to operate at LOS E yet with an increase in V/C ratio more than the 0.05 V/C threshold. This is a **significant** impact.

Mitigation Measures

There are no feasible mitigation measures to fully mitigate this impact under cumulative conditions. This impact could be partially mitigated by extending the existing auxiliary lane on eastbound Elk Grove Boulevard from Laguna Springs Drive to SR 99. However, because the City would have to acquire right-of-way on the south side of Elk Grove Boulevard along the entire segment and would impact existing development, this mitigation is considered infeasible. Therefore, the operational deficiencies under cumulative conditions are considered **cumulatively considerable** and **significant and unavoidable**.

Operations on Bruceville Road between Elk Grove Boulevard and Whitelock Parkway, Big Horn Boulevard between Laguna Boulevard and Elk Grove Boulevard, and Elk Grove Boulevard between Big Horn Boulevard and Laguna Springs Drive

Impact 4.4.7 The addition of project traffic to cumulative volumes would increase the volume to capacity ratio on Elk Grove Boulevard between Big Horn Boulevard and Laguna Springs Drive by 0.04. The addition of project traffic to cumulative volumes would increase the volume to capacity ratio on Big Horn Boulevard between Laguna Boulevard and Elk Grove Boulevard as well as Bruceville Road between Elk Grove Boulevard and Whitelock Parkway by 0.05. Since these roadway segments would continue to operate acceptably (LOS D or better) under cumulative plus project conditions, this is considered a **less than cumulatively significant** impact.

As mentioned above, **Table 4.4-11** compares roadway segment LOS and volume to capacity ratio under cumulative conditions throughout the project vicinity. As shown in **Table 4.4-11**, the addition of traffic associated with conceptual development allowed under the proposed project would not exacerbate the LOS on Bruceville Road between Elk Grove Boulevard and Whitelock Parkway, Big Horn Boulevard between Laguna Boulevard and Elk Grove Boulevard, and Elk Grove Boulevard between Big Horn Boulevard and Laguna Springs Drive. These road segments operate at LOS D or better under cumulative conditions. With implementation of the proposed project, these segments will continue to operate at LOS D or better resulting in a **less than cumulatively significant** impact.

Mitigation Measure

None required.

Operations at Elk Grove Boulevard/Bruceville Road Intersection

Impact 4.4.8 The addition of project traffic to cumulative no project volumes would increase the average delay at the Elk Grove Boulevard/Bruceville Road intersection by more than five seconds. Since this intersection operates unacceptably (LOS F) under cumulative no project conditions, this is considered a **significant** impact.

Table 4.4-12 compares intersection control delay and LOS ratio under cumulative conditions throughout the project vicinity. As shown in **Table 4.4-12**, the addition of traffic associated with conceptual development allowed under the proposed project would exacerbate the unacceptable LOS at the Elk Grove Boulevard/Bruceville Road intersection with the addition of project traffic. This intersection operates at LOS F under cumulative no project conditions. With implementation of the proposed project, the Elk Grove Boulevard/Bruceville Road intersection is estimated to also operate at LOS F yet with an increase in delay more than the five second threshold. This is considered a **significant** impact.

Mitigation Measures

MM 4.4.8 The westbound right turn at the Elk Grove Boulevard/Bruceville Road intersection shall be converted into an overlapping phase.

Timing/Implementation: *Prior to issuance of building permits for any development on the project site.*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning*

Implementation of mitigation measure **MM 4.4.8** would reduce this impact to **less than significant** and the project's contribution to **less than cumulatively considerable**.

Cumulative Operations at Intersections in the Project Vicinity

Impact 4.4.9 The addition of project traffic to cumulative no project volumes would increase the average delay at multiple project vicinity intersections by more than five seconds. Since these intersections operates unacceptably (LOS F or LOS E) under cumulative no project conditions, the project would have a **cumulatively considerable** contribution to this **significant and unavoidable** impact.

Table 4.4-12 above compares intersection control delay and LOS ratio under cumulative conditions throughout the project vicinity. As shown in **Table 4.4-12**, the addition of traffic associated with conceptual development allowed under the proposed project would exacerbate the unacceptable LOS at several intersections in the vicinity of the project with the addition of project traffic. While the Elk Grove Boulevard/SR 99 NB On-Ramp intersection would not be considerably impacted by the project, the intersections of Elk Grove Boulevard/Big Horn Boulevard, Elk Grove Boulevard/Laguna Springs Drive, Elk Grove Boulevard/Auto Center Drive, Elk Grove Boulevard/SR 99 SB Ramps, and Elk Grove Boulevard/East Stockton Boulevard would

operate unacceptably. These intersections and their LOS under cumulative no project and cumulative with project conditions are as follows:

Elk Grove Boulevard/Big Horn Boulevard intersection: The addition of project traffic to cumulative no project volumes would increase the average delay at this intersection by more than five seconds. Since this intersection operates unacceptably (LOS E) under cumulative no project conditions, this is considered a significant impact.

Several improvements were analyzed in order to reduce the significance of the impact at this intersection, including constructing an additional eastbound left-turn lane and constructing an additional northbound through-lane. However, these improvements were unsuccessful in fully mitigating the impact at this intersection. Therefore, this intersection will operate unacceptably (LOS F) under the cumulative plus project conditions and is considered to be a significant impact.

Elk Grove Boulevard/Laguna Springs Drive intersection: The addition of project traffic to cumulative no project volumes would increase the average delay at the Elk Grove Boulevard/ Laguna Springs Drive intersection by more than five seconds. Since this intersection operates unacceptably (LOS F) under cumulative no project conditions, this is considered a significant impact.

Improvements were analyzed in order to reduce the significance of the impact at this intersection, such as constructing an additional northbound left-turn lane. However, in order to accommodate this improvement, the City would have to acquire additional right-of-way on the north side of the intersection. Because this improvement would impact the existing developments on the north side of the intersection, the improvement is considered infeasible. Therefore, this intersection will operate unacceptably (LOS F) under the cumulative plus project conditions and is considered to be a significant impact.

Elk Grove Boulevard/Auto Center Drive intersection: The addition of project traffic to cumulative no project traffic would increase the average delay at the Elk Grove Boulevard/Auto Center Drive intersection by more than five seconds. Since this intersection operates unacceptably (LOS F) under cumulative no project conditions, this is considered a significant impact.

Modifying the signal to provide an overlapping phase for the northbound right-turn lanes was analyzed. While this improvement reduced the significance of the impact, it did not fully mitigate the impact at this intersection. Moreover, implementation of overlap phasing for the northbound right-turn movement would require prohibiting U-turns on westbound Elk Grove Boulevard, which would divert traffic to Laguna Springs Drive. Because of the potential impact to Laguna Springs Drive, which is operating under cumulative conditions as a LOS D, this improvement is considered infeasible.

The significance of the impact could be reduced by requiring the project to pay its fair share cost toward the coordination of the Elk Grove Boulevard/Auto Center Drive intersection with the Elk Grove Boulevard/SR 99 SB Ramps, Elk Grove Boulevard/SR 99 NB On-Ramp, and Elk Grove Boulevard/East Stockton Boulevard intersections as part of the ongoing Elk Grove Boulevard Intelligent Transportation Systems (ITS) Improvements project. Implementation of mitigation measure **MM 4.4.9** would reduce this impact; however it would not reduce the project's contribution to less than cumulatively considerable.

Elk Grove Boulevard/SR 99 Southbound Ramps intersection: The addition of project traffic to cumulative no project traffic would increase the average delay at the Elk Grove Boulevard/SR

99 SB Ramps intersection by more than five seconds. Since this intersection operates unacceptably (LOS F) under cumulative no project conditions, this is considered a significant impact.

The operational impact of constructing an additional westbound left-turn lane, a planned but currently unfunded improvement to the intersection was analyzed. This improvement did not reduce overall delay at the intersection to a less than significant level under cumulative conditions. Due to right-of-way constraints at the intersection (which is adjacent to SR 99), no other physical improvements are considered feasible.

The significance of the impact could be reduced by requiring the project to pay its fair share cost toward the coordination of the Elk Grove Boulevard/SR 99 SB Ramps intersection with the Elk Grove Boulevard/East Stockton Boulevard, Elk Grove Boulevard/SR 99 NB On-Ramp, and Elk Grove Boulevard/Auto Center Drive intersections as part of the ongoing Elk Grove Boulevard Intelligent Transportation Systems (ITS) Improvements project. Implementation of mitigation measure **MM 4.4.9** would reduce this impact; however it would not reduce the project's contribution to less than cumulatively considerable.

Elk Grove Boulevard/East Stockton Boulevard intersection: The addition of project traffic to cumulative no project traffic would increase the average delay at the Elk Grove Boulevard/East Stockton Boulevard intersection by more than five seconds. Since this intersection operates unacceptably (LOS E) under cumulative no project conditions, this is considered a significant impact.

The significance of the impact could be reduced by requiring the project to pay its fair share cost toward the coordination of the Elk Grove Boulevard/East Stockton Boulevard intersection with the Elk Grove Boulevard/SR 99 NB On-Ramp, Elk Grove Boulevard/SR 99 SB Ramps, and Elk Grove Boulevard/Auto Center Drive intersections as part of the ongoing Elk Grove Boulevard Intelligent Transportation Systems (ITS) Improvements project. Implementation of mitigation measure **MM 4.4.9** would reduce this impact; however it would not reduce the project's contribution to less than cumulatively considerable.

Mitigation Measures

MM 4.4.9 The project is to pay its fair share cost toward the coordination of the Elk Grove Boulevard/East Stockton Boulevard intersection with the Elk Grove Boulevard/SR 99 NB On-Ramp, Elk Grove Boulevard/SR 99 SB Ramps, and Elk Grove Boulevard/Auto Center Drive intersections as part of the ongoing Elk Grove Boulevard Intelligent Transportation Systems (ITS) Improvements project.

Timing/Implementation: *The fair share of fees paid to be paid at the time of building permit issuance.*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning*

The addition of traffic associated with conceptual development allowed under the proposed project would exacerbate the unacceptable LOS at the intersections listed above. Although implementation of mitigation measure **MM 4.4.9** can be implemented to reduce the significance of these intersection impacts, impacts cannot be reduced to a less than significant level. Therefore project impacts to these intersections would be **cumulatively considerable** and **significant and unavoidable**.

REFERENCES

City of Elk Grove, 2003. City of Elk Grove General Plan Draft Environmental Impact Report. Elk Grove, CA. August, 2003.

City of Elk Grove, 2005. *City of Elk Grove General Plan, Circulation Element*. Elk Grove, CA. Adopted November 2003; amended January 2005.

City of Elk Grove, 2004. *Laguna Ridge Specific Plan*. City of Elk Grove Development Services, Planning. Elk Grove, CA. June 16, 2004.

City of Elk Grove, 2003. *Laguna Ridge Specific Plan Revised EIR*. City of Elk Grove Development Services, Planning. Elk Grove, CA. June 2003.

Fehr & Peers Transportation Consultants. 2008. *Traffic Impact Analysis* for the *Laguna Town Ridge Center Project Report*. Prepared for City of Elk Grove. January 31, 2008.