

## 3.13 TRAFFIC, TRANSPORTATION, AND CIRCULATION

This section describes the existing transportation system near the project site and evaluates the potential impacts on the system associated with future annexation and development of the SOIA area (or “project site”). Roadway, transit, bicycle, and pedestrian components of the overall transportation system are included in the analysis. This section also describes the analysis techniques, assumptions, and results used to identify potential significant impacts of the project on the transportation system. Transportation and circulation impacts are described and assessed, and mitigation measures are recommended for impacts identified as significant or potentially significant.

The Sacramento County Department of Transportation submitted a letter on the Notice of Preparation that provides general comments regarding the future development of the SOIA area and funding for future operation and maintenance of roadways, as well as specific recommendations regarding the traffic study. The recommended roadways for evaluation are addressed in this section.

### 3.13.1 Environmental Setting

This section describes the existing environmental setting, which is the baseline scenario upon which project-specific impacts are evaluated. The baseline for this study represents conditions based on data collection and field observations conducted in April 2017.

#### PROJECT STUDY AREA

The study area was developed based on consideration of the following factors: the project’s expected travel characteristics (including number of vehicle trips and directionality of those trips), primary travel routes to/from the project vicinity, and a project-area trip assignment using a modified version of the Sacramento Area Council of Government’s (SACOG) SACMET regional travel demand forecasting model. Exhibit 3.13-1 shows the study area, project site, and 30 study roadways (including segments of State Route [SR] 99 and Interstate [I] 5) selected for analysis. The study area also includes bicycle, pedestrian, and transit facilities near the project.

#### EXISTING ROADWAY NETWORK

Key roadways within this system that would serve trips associated with the project are described below. Exhibit 3.13-2 shows the number of lanes on area roadways.

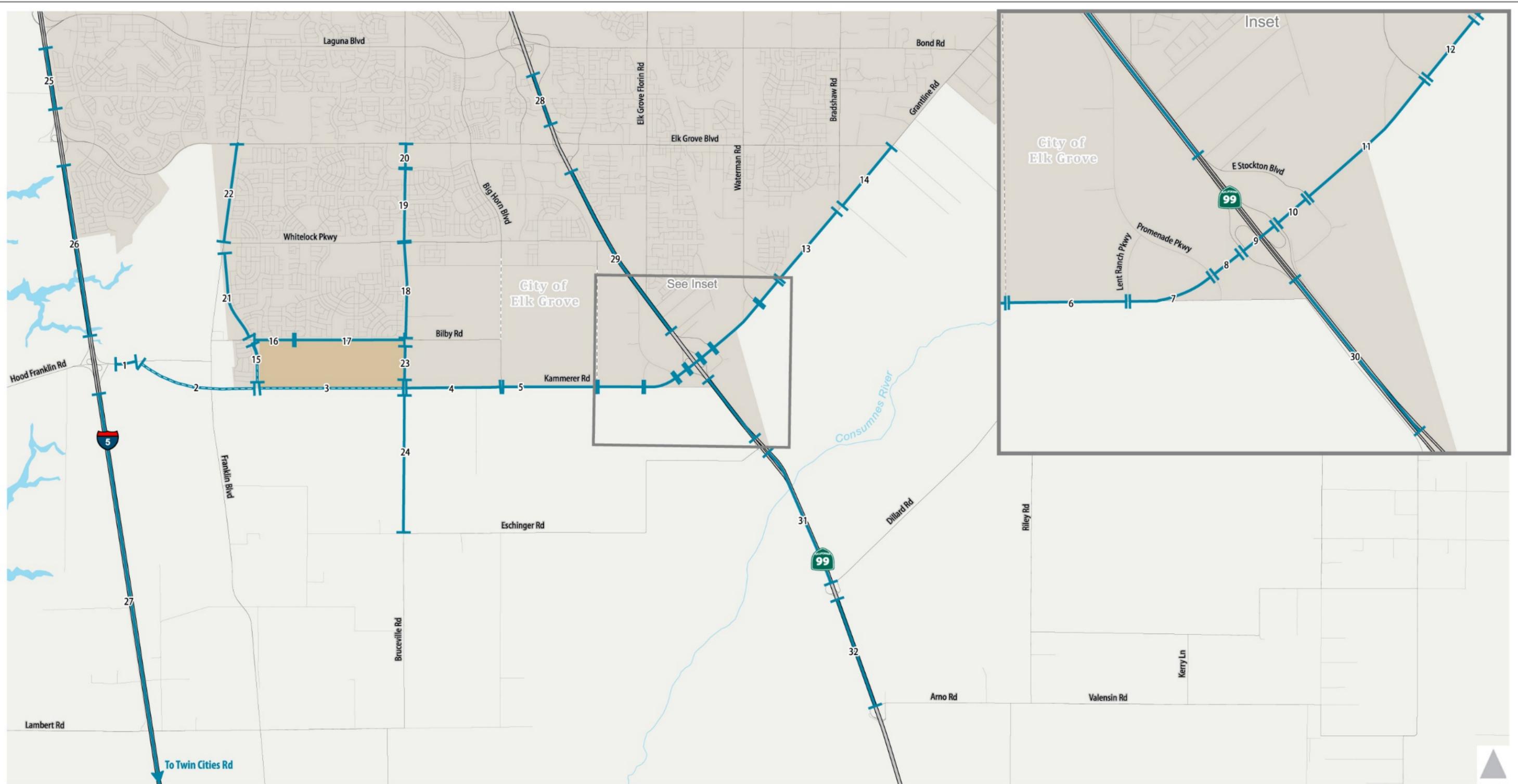
- ▲ Bilby Road is an east-west two-lane collector roadway that extends from Franklin Boulevard to Bruceville Road in the east. Bilby Road is designated in the City of Elk Grove General Plan as a two-lane collector between and Bruceville Road and as a four-lane arterial east of Bruceville Road to Promenade Parkway.
- ▲ Bruceville Road is a north-south road extending from Valley Hi Drive near the Kaiser-Permanente complex in unincorporated Sacramento County south through Elk Grove into San Joaquin County. Bruceville Road is four lanes between Sheldon Road and Laguna Boulevard, six lanes between Laguna Boulevard and Elk Grove Boulevard, four lanes between Elk Grove Boulevard and Whitelock Parkway, and two lanes south of Whitelock Parkway. Bruceville Road is designated as a six-lane arterial in the City of Elk Grove General Plan.
- ▲ Franklin Boulevard is a north-south roadway that extends from Twin Cities Road (south of the project) to the City of Sacramento in the North. Franklin Boulevard is a two-lane rural road between Lambert Road and Hood-Franklin Road and is outside the County’s Urban Services Boundary. In the City of Elk Grove,

Franklin Boulevard is two lanes to Whitelock Parkway and four lanes between Whitelock Parkway and Elk Grove Boulevard. Franklin Boulevard is designated as a six-lane arterial in the General Plan.

- ▲ Grant Line Road traverses Elk Grove in a southwest to northeast direction. Grant Line Road extends from SR 99 through Elk Grove to White Rock Road in Rancho Cordova. Grant Line Road is six lanes between SR 99 and East Stockton Boulevard, and four lanes between East Stockton Boulevard and Waterman Road with a grade-separated crossing of the Union Pacific Railroad. Grant Line Road is two lanes east of Waterman Road. Grant line Road is designated as an eight-lane arterial between SR 99 and Bradshaw Road and as a six-lane arterial east of Bradshaw Road. Grant Line Road is also part of the Capital SouthEast Connector project.
- ▲ Hood-Franklin Road is an east-west two-lane rural roadway that extends from Franklin Boulevard/River Road in the west. It provides access from the project area to I-5. Hood-Franklin Road is located outside the County's Urban Services Boundary. Hood-Franklin Road has a Type L-9 partial cloverleaf interchange at I-5 with a two-lane overcrossing. Hood Franklin Road is designated as a post 2030 thoroughfare in the Sacramento County General Plan and as a six-lane arterial in the City of Elk Grove General Plan. A portion of Hood-Franklin Road is near the I-5 interchange is part of the Capital SouthEast Connector project.
- ▲ Kammerer Road is an east-west road extending from Bruceville Road to West Stockton Boulevard. Kammerer Road is two lanes from just west of Lent Ranch Parkway to Bruceville Road. Kammerer Road is part of the Capital SouthEast Connector project and is designated in the City of Elk Grove General Plan as an eight-lane arterial from SR 99 to Lent Ranch Parkway and as a six-lane arterial from Lent Ranch Parkway to Franklin Boulevard. The Elk Grove General Plan includes the extension of Kammerer Road from Bruceville Road to Franklin Boulevard. The Capital SouthEast Connector Joint Powers Authority (Connector JPA), City of Elk Grove, and Sacramento County are coordinating on the proposed Kammerer Road Extension Project that is located south of the project site and would consist of a four-lane expressway with a Class 1 bicycle and pedestrian trail along the expressway.
- ▲ Willard Parkway is a north-south road that extends from Whitelock Parkway to south of Bilby Road. Willard Parkway is generally four lanes. Willard Parkway is designated in the City of Elk Grove General Plan as a six-lane arterial that will connect to the planned extension of Kammerer Road to Hood Franklin Road.
- ▲ State Route 99 (SR 99) is a north-south freeway that provides a connection between all of the major cities in the Central Valley, from Sacramento and Stockton in the north to the cities of Modesto, Merced, Fresno, and Bakersfield in the south. Access to SR 99 is provided through interchanges at Grant Line Road, Elk Grove Boulevard, Laguna Boulevard/Bond Road, and Sheldon Road. This section of SR 99 has two mainline travel lanes and one high occupancy vehicle (HOV) lane in either direction with a posted speed limit of 65 mph.
- ▲ Interstate 5 (I-5) is a north-south freeway that traverses California and is a major national freeway that connects between Mexico and Canada. Near the Hood Franklin Road interchange, I-5 is a four-lane freeway.

## TRAFFIC DATA COLLECTION

Peak hour Intersection and roadway segment counts were collected in April 2015 and August 2014, respectively. During all counts, weather conditions were generally dry, no unusual traffic patterns were observed, and the Elk Grove Unified School District was in session. The weekday AM peak hour occurs between 7:00 and 9:00 a.m. and the PM peak hour occurs between 4:00 and 6:00 p.m. In addition to collecting vehicle turning movements at the study intersections, all intersection counts included pedestrian and bicycle activity.



- 1 Study Roadway Segment
- 2 Future Study Roadway Segment
- Future Roadway Segment
- Proposed Bilby Ridge Sphere of Influence

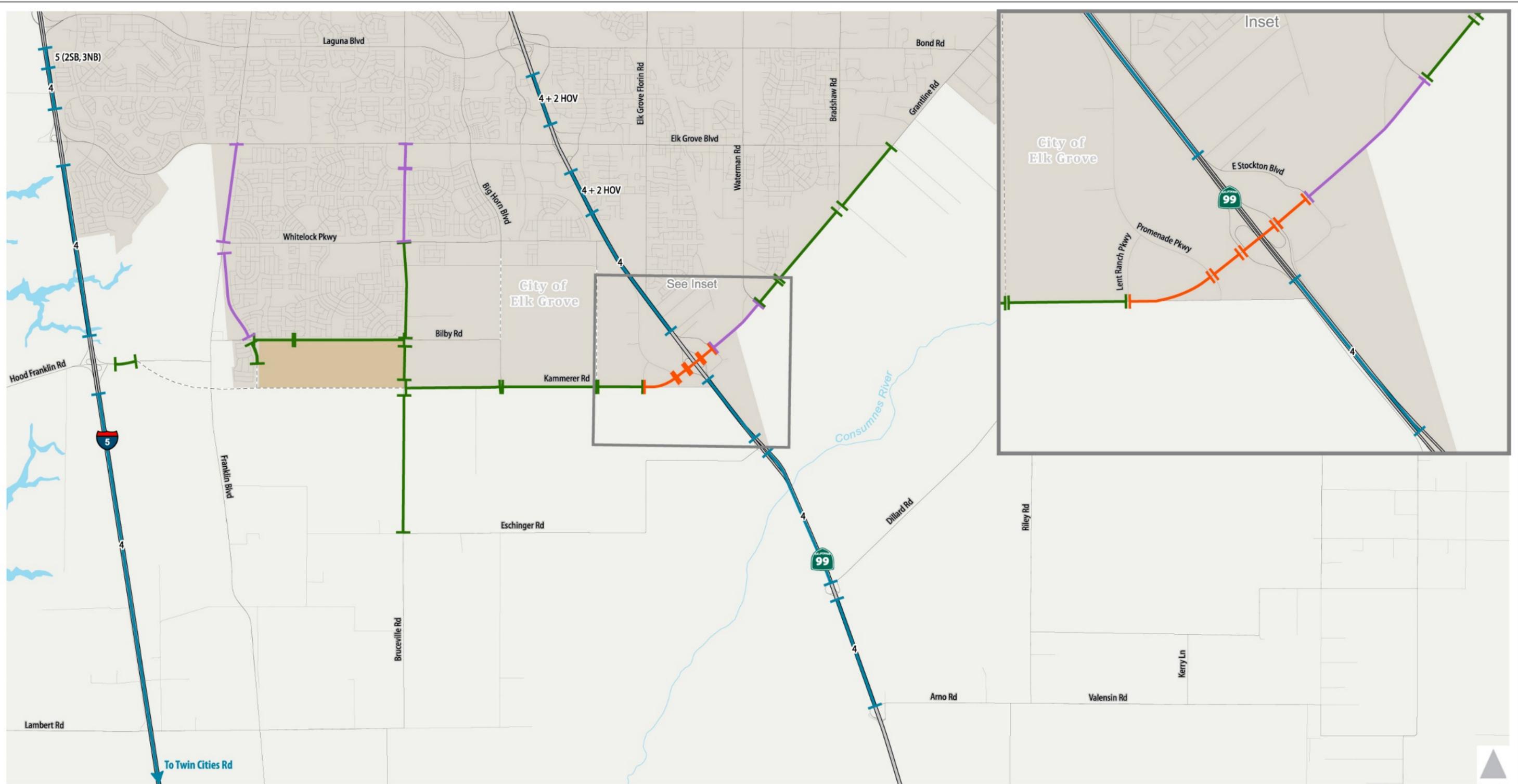
Source: Fehr & Peers 2017  
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Exhibit 3.13-1

Study Area







- | | Roadway Segment (2 Lanes)
- | | Roadway Segment (4 Lanes)
- | | Roadway Segment (6 Lanes)
- (x) Freeway Segment Number of Lanes
- Future Roadway Segment
- Proposed Bilby Ridge Sphere of Influence

Source: Fehr & Peers 2017  
X16010132 01.004

Exhibit 3.13-2

Roadway Lanes (Two-Way Total) - Existing Conditions





## STUDY PERIODS

The traffic analysis presented below includes analysis of daily and peak hour conditions. Based on the traffic data collection, the AM peak hour within most of the study area occurred from 7:15 to 8:15 a.m., and the PM peak hour within the entire study area occurred from 4:45 to 5:45 p.m.

## ROADWAY SYSTEM

All roadway and freeway segments were analyzed by comparing average daily traffic volumes (two-way total) to the capacity thresholds presented in Table 3.13-1. In addition, roadway segments on Grant Line Road and Kammerer Road, which are part of the Capital Southeast Connector, were also analyzed using peak hour directional volumes.

The daily volume capacity thresholds for arterials and rural facilities are from the Sacramento County's July 2004 Traffic Impact Analysis Guidelines. The capacity thresholds for freeways are from the City of Elk Grove's July 2000 Traffic Impact Analysis Guidelines. These thresholds are used to identify the need for new or upgraded facilities. For freeway segments with high occupancy vehicle lanes, the analysis is based on the traffic volume in the general-purpose lanes only.

Under existing conditions, the peak hour roadway segments are consistent with the City of Elk Grove General Plan transportation impact analysis peak hour directional capacity thresholds, which applied a capacity of 990 vehicles per hour per lane for arterials and 2,200 vehicles per hour per lane for freeways. The peak hour service volume thresholds for the Capital Southeast Connector segments (i.e., analyzed under cumulative conditions) are from the Capital SouthEast Connector Planning and Evaluating Traffic Conditions White Paper, January 2017. The Capital SouthEast Connector Planning and Evaluating Traffic Conditions White Paper recommends operational analysis of roadways segments when the service volume exceed 85 percent of the roadways LOS E service volume of the ultimate roadway facility.

In most cases, the results are representative of observed conditions. However, analysis results may not be representative of peak travel conditions where the presence of closely spaced intersections on arterial roadways or bottlenecks on freeway segments result in vehicle queuing and reduced travel speeds. As appropriate, these conditions are noted and discussed.

## Level of Service Definitions

Level of service (LOS) is a qualitative 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.

**Table 3.13-1 Roadway Level of Service Definitions**

Facility Type	Number of Lanes	Maximum Volume Threshold					
		LOS A	LOS B	LOS C	LOS D	LOS E	
Daily Volume Thresholds (Two-way Total)							
Arterial	Low Access Control <sup>1</sup>	2	9,000	10,500	12,000	13,500	15,000
		4	18,000	21,000	24,000	27,000	30,000
		6	27,000	31,500	36,000	40,500	45,000
	Moderate Access Control <sup>2</sup>	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
	High Access Control <sup>3</sup>	2	12,000	14,000	16,000	18,000	20,000
		4	24,000	28,000	32,000	36,000	40,000
		6	36,000	42,000	48,000	54,000	60,000
Rural	2-Lane Highway	2	2,400	4,800	7,900	13,500	22,900
	2-Lane road Paved Shoulders	2	2,200	4,300	7,100	12,200	20,000
	2-Lane road No Shoulders	2	1,800	3,600	5,900	10,100	17,000
Freeway <sup>4</sup>	4	28,000	43,200	61,600	74,400	80,000	
	6	42,000	64,800	92,400	111,600	120,000	
	8	56,000	86,400	123,200	148,800	160,000	
Peak Hour Directional Volume Thresholds							
Connector Segments <sup>5</sup>	Expressway	2	85% of LOS E Service Volume				3,290
	Arterial	2					1,550
		3					2,330

**Note:**

- 1 Low access control roads generally have frequent driveways and speeds of 25 to 35 mph.
- 2 Medium access control roads generally have limited driveways and speeds of 30 to 35 mph.
- 3 High-access control roads generally have no driveways and speeds of 35 to 50 mph.
- 4 Freeway capacities from City of Elk Grove Traffic Impact Analysis Guidelines.
- 5 Peak hour directional volume thresholds from Capital SouthEast Connector Planning and Evaluating Traffic Conditions White Paper, January 25, 2017.

**Source:**

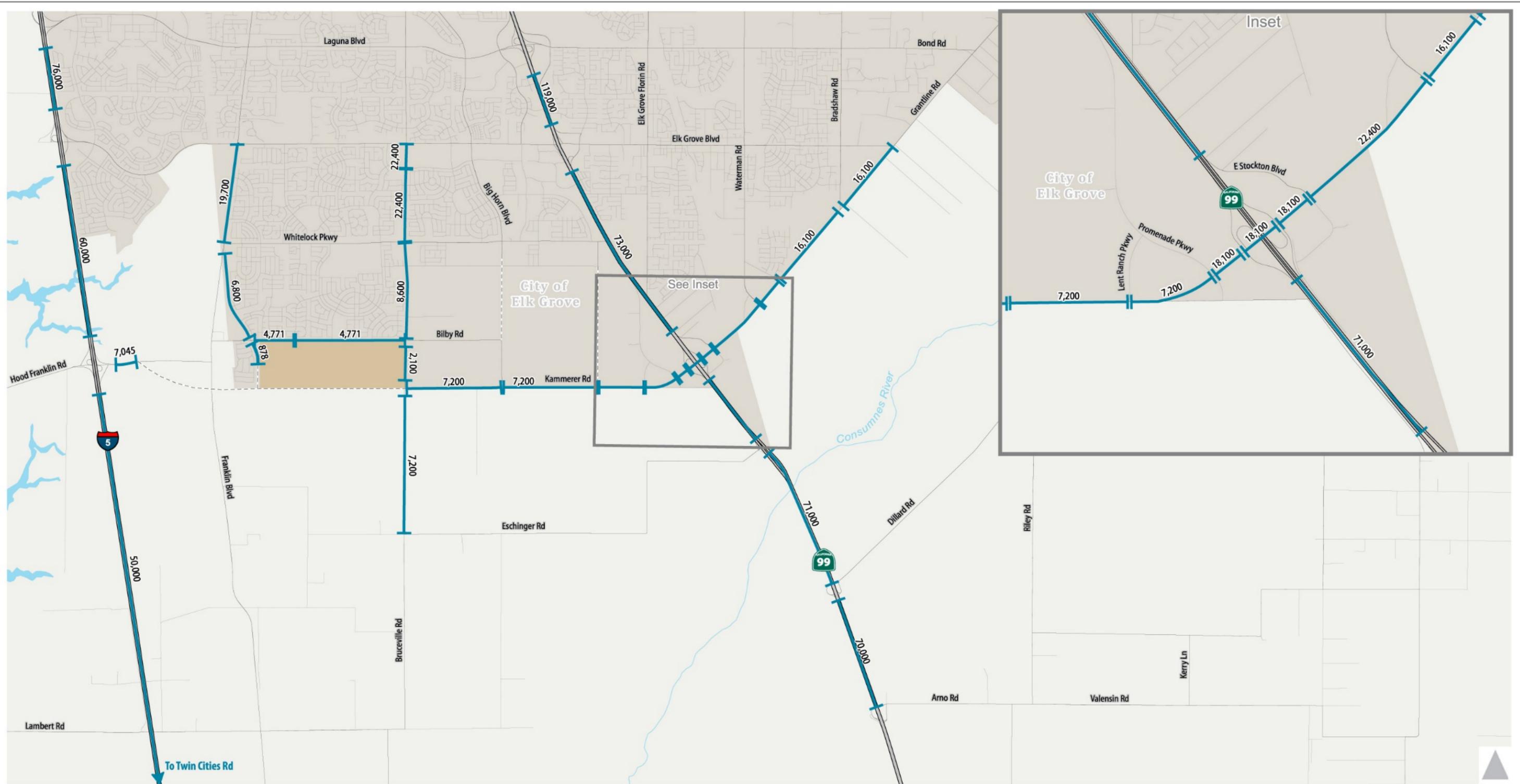
Sacramento County Traffic Impact Analysis Guidelines, 2004  
 City of Elk Grove Traffic Impact Analysis Guidelines, 2000  
 Capital SouthEast Connector Planning and Evaluating Traffic Conditions White Paper, January 25, 2017.

### Existing Traffic Volumes

Exhibit 3.13-3 displays existing daily roadway segment volumes (two-way total) and Exhibit 3.13-4 depicts AM and PM peak hour directional roadway segment volumes.

### Existing Roadway Segment Operations

Table 3.13-2 displays existing daily roadway segment operation and Table 3.13-3 displays existing peak-hour directional roadway segment operations.



- x,xxx Average Daily Traffic (ADT)
- Future Roadway Segment
- Proposed Bilby Ridge Sphere of Influence

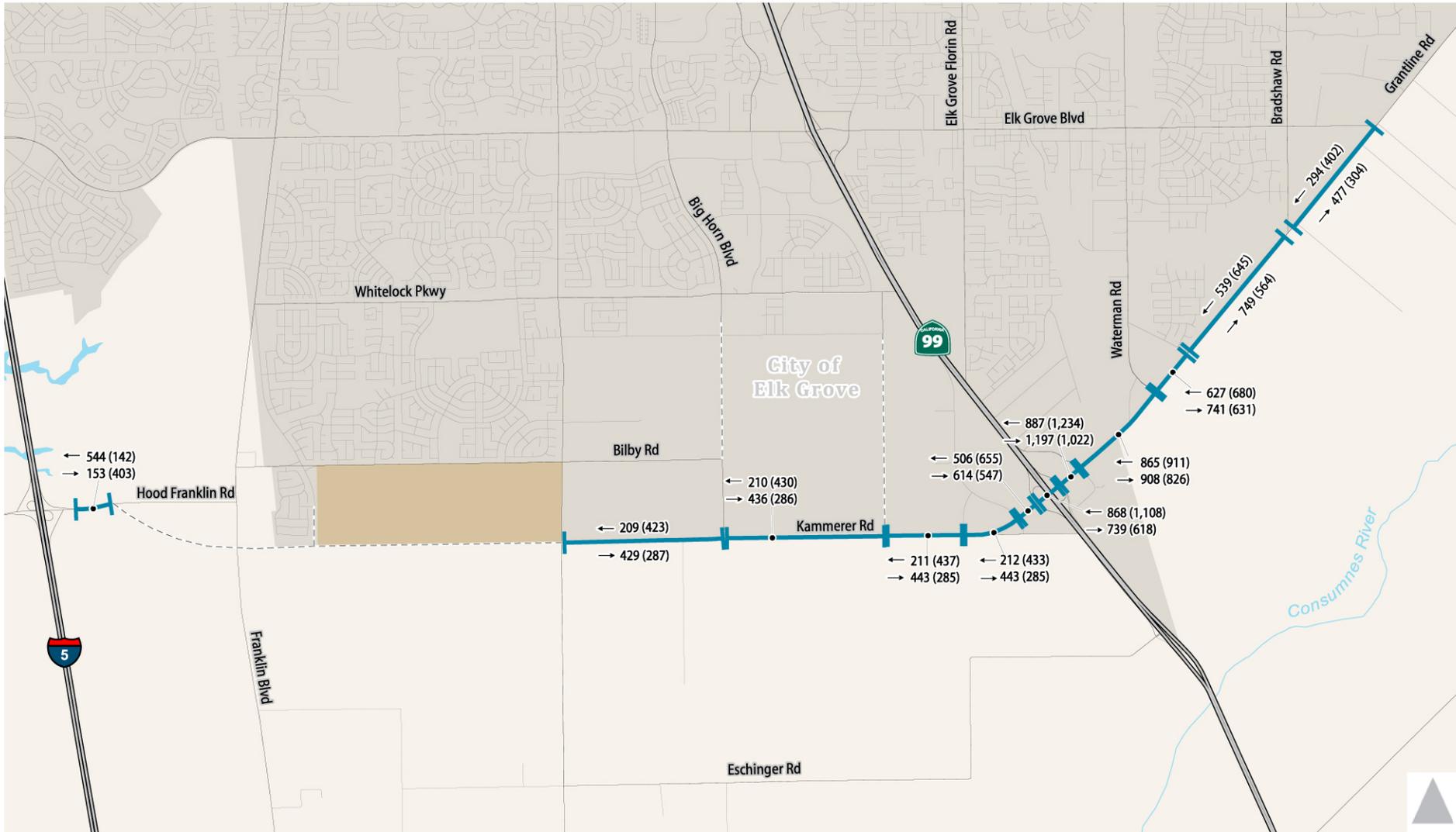
Source: Fehr & Peers 2017  
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Exhibit 3.13-3

Average Daily Traffic Volumes – Existing Conditions







← AM (PM) Peak Hour Traffic Volume  
 → AM (PM)  
 - - - - - Future Roadway Segment  
 Proposed Bilby Ridge Sphere of Influence

Source: Fehr & Peers 2017  
X16010132 01 006

Exhibit 3.13-4

Peak Hour Traffic Volumes – Existing Conditions



**Table 3.13-2 Daily Roadway Segment Operations – Existing Conditions**

Roadway Segment	Threshold LOS	Lanes (Two-Way Total) <sup>1</sup>	Daily Capacity	Daily Volume	LOS	V/C Ratio
1. Hood Franklin Rd - I-5 NB Ramps to Kammerer Rd	D	2	17,000	7,045	D	0.41
2. Kammerer Rd - Hood Franklin Rd to Willard Pkwy	-	-	-	-	-	-
3. Kammerer Rd - Willard Pkwy to Bruceville Rd	-	-	-	-	-	-
4. Kammerer Rd - Bruceville Rd to Big Horn Blvd	D	2	18,000	7,200	A	0.40
5. Kammerer Rd - Big Horn Blvd to Lotz Pkwy	D	2	18,000	7,200	A	0.40
6. Kammerer Rd - Lotz Pkwy to Lent Ranch Pkwy	D	2	18,000	7,200	A	0.40
7. Kammerer Rd - Lent Ranch Pkwy to Promenade Pkwy	D	6	54,000	7,200	A	0.13
8. Kammerer Rd - Promenade Pkwy to SR 99 SB Ramps	D	6	54,000	18,100	A	0.34
9. Grant Line Rd - SR 99 SB Ramps to SR 99 NB Ramps	D	6	54,000	18,100	A	0.34
10. Grant Line Rd - SR 99 NB Ramps to Survey Rd-E. Stockton Blvd	D	6	54,000	18,100	A	0.34
11. Grant Line Rd - Survey Rd-E. Stockton Blvd to Waterman Rd	D	4	36,000	22,400	B	0.62
12. Grant Line Rd - Waterman Rd to Mosher Rd	D	2	18,000	16,100	D	0.89
13. Grant Line Rd - Mosher Rd to Bradshaw Rd	D	2	18,000	16,100	D	0.89
14. Grant Line Rd - Bradshaw Rd to Elk Grove Blvd	D	2	18,000	16,100	D	0.89
15. Willard Pkwy - Kammerer Rd to Bilby Rd	D	2	18,000	878	A	0.05
16. Bilby Rd - Willard Pkwy to Coop Dr	D	2	18,000	4,771	A	0.27
17. Bilby Rd - Coop Dr to Bruceville Rd	D	2	18,000	4,771	A	0.27
18. Bruceville Rd - Bilby Rd to Whitelock Pkwy	D	2	18,000	8,600	A	0.48
19. Bruceville Rd - Whitelock Pkwy to Backer Ranch Rd-Civic Center Dr	D	4	36,000	22,400	B	0.62
20. Bruceville Rd - Backer Ranch Rd-Civic Center Dr to Elk Grove Blvd	D	4	36,000	22,400	B	0.62
21. Willard Pkwy - Bilby Rd (West) to Franklin Blvd	D	4	36,000	6,800	A	0.19
22. Franklin Rd - Whitelock Pkwy to Elk Grove Blvd	D	4	36,000	19,700	A	0.55
23. Bruceville Rd - Bilby Rd to Kammerer Rd	D	4	18,000	7,200	A	0.40
24. Bruceville Rd - Kammerer Rd to Eschinger Rd	D	2	17,000	2,100	B	0.12
25. I-5 Mainline - Elk Grove Blvd to Laguna Blvd	E	4	80,000	76,000	E	0.95
26. I-5 Mainline - Hood Franklin Rd to Elk Grove Blvd	E	4	80,000	60,000	C	0.75
27. I-5 Mainline - Twin Cities Rd to Hood Franklin Rd	E	4	80,000	50,000	C	0.63
28. SR 99 Mainline - Elk Grove Blvd to Laguna Blvd-Bond Rd	E	4	80,000	119,000	<b>F</b>	<b>1.49</b>
29. SR 99 Mainline - Grant Line Rd to Elk Grove Blvd	E	4	80,000	73,000	D	0.91
30. SR 99 Mainline - Eschinger Rd to Grant Line Rd	E	4	80,000	71,000	D	0.89
31. SR 99 Mainline - Eschinger Rd to Dillard Rd	E	4	80,000	71,000	D	0.89
32. SR 99 Mainline - Arno Rd to Dillard Rd	E	4	80,000	70,000	D	0.88

Notes: **Bold** indicates level of service worse than threshold level of service. LOS = level of service. V/C = volume-to-capacity.

<sup>1</sup> The number of lanes listed for I-5 and SR 99 freeway segments are the two-way total of mainline general-purpose lanes.

Source: compiled by Fehr & Peers, 2017

**Table 3.13-3 Peak Hour Directional Roadway Segment Operations – Existing Conditions**

Roadway	From	To	LOS Threshold	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
						Volume	LOS	VC Ratio	Volume	LOS	VC Ratio
1. Hood Franklin Rd	I-5 NB Ramps	Kammerer Rd	D	1	990	153	A	0.15	403	A	0.41
	Kammerer Rd	I-5 NB Ramps	D	1	990	544	A	0.55	142	A	0.14
2. Kammerer Rd	Hood Franklin Rd	Willard Pkwy	-	-	-	-	-	-	-	-	-
	Willard Pkwy	Hood Franklin Rd	-	-	-	-	-	-	-	-	-
3. Kammerer Rd	Willard Pkwy	Bruceville Rd	-	-	-	-	-	-	-	-	-
	Bruceville Rd	Willard Pkwy	-	-	-	-	-	-	-	-	-
4. Kammerer Rd	Bruceville Rd	Big Horn Blvd	D	1	990	429	A	0.43	287	A	0.29
	Big Horn Blvd	Bruceville Rd	D	1	990	209	A	0.21	423	A	0.43
5. Kammerer Rd	Big Horn Blvd	Lotz Pkwy	D	1	990	436	A	0.44	286	A	0.29
	Lotz Pkwy	Big Horn Blvd	D	1	990	210	A	0.21	430	A	0.43
6. Kammerer Rd	Lotz Pkwy	Lent Ranch Pkwy	D	1	990	443	A	0.45	285	A	0.29
	Lent Ranch Pkwy	Lotz Pkwy	D	1	990	211	A	0.21	437	A	0.44
7. Kammerer Rd	Lent Ranch Pkwy	Promenade Pkwy	D	3	2,970	443	A	0.15	285	A	0.10
	Promenade Pkwy	Lent Ranch Pkwy	D	3	2,970	212	A	0.07	433	A	0.15
8. Kammerer Rd	Promenade Pkwy	SR 99 SB Ramps	D	3	2,970	614	A	0.21	547	A	0.18
	SR 99 SB Ramps	Promenade Pkwy	D	3	2,970	506	A	0.17	655	A	0.22
9. Grant Line Rd	SR 99 SB Ramps	SR 99 NB Ramps	D	3	2,970	739	A	0.25	618	A	0.21
	SR 99 NB Ramps	SR 99 SB Ramps	D	3	2,970	868	A	0.29	1,108	A	0.37
10. Grant Line Rd	SR 99 NB Ramps	Survey Rd-E. Stockton Blvd	D	3	2,970	1,197	A	0.40	1,022	A	0.34
	Survey Rd-E. Stockton Blvd	SR 99 NB Ramps	D	3	2,970	887	A	0.30	1,234	A	0.42
11. Grant Line Rd	Survey Rd-E. Stockton Blvd	Waterman Rd	D	2	1,980	908	A	0.46	826	A	0.42
	Waterman Rd	Survey Rd-E. Stockton Blvd	D	2	1,980	865	A	0.44	911	A	0.46
12. Grant Line Rd	Waterman Rd	Mosher Rd	D	1	990	741	C	0.75	631	B	0.64
	Mosher Rd	Waterman Rd	D	1	990	627	B	0.63	680	B	0.69
13. Grant Line Rd	Mosher Rd	Bradshaw Rd	D	1	990	749	C	0.76	564	A	0.57
	Bradshaw Rd	Mosher Rd	D	1	990	539	A	0.54	645	B	0.65
14. Grant Line Rd	Bradshaw Rd	Elk Grove Blvd	D	1	990	477	A	0.48	304	A	0.31
	Elk Grove Blvd	Bradshaw Rd	D	1	990	294	A	0.30	402	A	0.41

Note: LOS = level of service. V/C = volume-to-capacity.

Source: compiled by Fehr & Peers, 2017

All roadway segments operate at LOS D or better based on both the daily (two-way total) and peak hour directional roadway segment threshold presented in Table 3.13-2 and Table 3.13-3, respectively. However, as shown in Table 3.13-2, the segment of SR 99 between Elk Grove Boulevard and Laguna Boulevard

operates at LOS F. In addition, the segment of I 5 between Elk Grove Boulevard and Laguna Boulevard operates at LOS E (VC of 0.95).

The roadway segment analysis documented in Table 3.13-2 does not capture localized congestion because of operational effects of closely spaced intersections (long vehicle queues, low vehicle speed, and long delay), experienced near freeway interchanges. Similarly, peak period operations on SR 99 and I-5 may be worse than reported because of reoccurring bottlenecks. As documented in the California Department of Transportation (CalTrans) Mobility Performance Report (Caltrans 2011), several bottleneck locations exist on SR 99 that meter traffic northbound in the morning and southbound in the evening, which cause congested conditions (i.e., vehicle speed of 35 miles per hour or less) and vehicle queuing on northbound SR 99 during the AM peak period. Similarly, bottlenecks on southbound SR 99 in the evening meter traffic on SR 99 through Elk Grove.

## Vehicle Miles Traveled

As discussed under Section 3.13.2, “Regulatory Framework,” implementation of Senate Bill 743 will involve adoption of updates to the CEQA Guidelines to identify the use of vehicle miles traveled (VMT) as the primary metric used to identify transportation impacts. The City of Elk Grove is also proposing the establishment of VMT standards in its General Plan Update. As part of the City’s development of VMT standards, the City has identified the following 2015 average daily VMT per service population by land use types shown in Table 3.13-4

**Table 3.13-4 City of Elk Grove Vehicle Miles Traveled Baseline (2015) by Land Use Designation**

Land Use Designation	Average Daily VMT per Service Population
<b>Commercial and Employment Land Use Designations</b>	
Community Commercial	81.4
Regional Commercial	48.1
Employment Center	14
Light Industrial/Flex	30.8
Light Industrial	49.7
Heavy Industrial	36.6
<b>Mixed Use Land Use Designations</b>	
Village Center Mixed Use	32
Residential Mixed Use	20.6 <sup>1</sup>
<b>Public/Quasi Public and Open Space Land Use Designations<sup>2</sup></b>	
Public Services	23.5
<b>Residential Land Use Designations</b>	
Rural Residential	23.6
Estate Residential	18.8 <sup>1</sup>
Low Density Residential	14.1
Medium Density Residential	12.9
High Density Residential	9.2 <sup>1</sup>
<b>Other Land Use Designations</b>	
Agriculture	35.9

Source: City of Elk Grove General Plan Update, Introduction of Draft Mobility Policies and Process, Table 1 (City of Elk Grove 2017a)

<sup>1</sup> The City had limited operating land uses of this type in 2015. Therefore, the baseline 2015 VMT numbers for these land use designations were extrapolated based on most similar land uses.

<sup>2</sup> Parks and Open Space and Resource Management and Conservation land use designations are not anticipated to produce significant VMT, as they have no residents and limited to no employees.

The SACOG 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) protects that the regional weekday VMT in 2036 will be 74,519,700 miles (SACOG 2016).

## TRANSIT SYSTEM

Based on the 2009-2013 American Community Survey, about 2 percent of Elk Grove residents use public transit to travel to work. In Elk Grove, fewer residents use public transportation to get to work compared to California residents overall (about 5 percent).

The City of Elk Grove is served by its own transit system, e-Tran, including e-Tran neighborhood shuttle service (ez-tran), limited local transit service, and commuter routes. Local transit service is provided on weekdays (six routes) and weekends (three routes). e-Tran provides nine commuter routes that operate mid-week, including two reverse commuter routes. The current e-Trans system map is shown in Exhibit 3.13-5. The Purple Line Route, which travels on Bilby Road, provides service to passengers with employment destinations in Downtown Sacramento. The Purple Line Route is the closest service to the project site.

The route is open to the general public and will deviate up to a mile from the route for and e-van pick-up/drip-off. The Purple Line is a pilot route and will continue based on ridership levels.

The City of Elk Grove is studying the potential for a multi-modal facility to provide access to the e-Tran express bus, Regional Transit Light Rail, future bus rapid transit, and commuter rail. The City has identified four potential sites for a multi-modal facility: southwest corner of Elk Grove Boulevard and Franklin Boulevard intersection, west of the Willard Parkway and Matina Drive intersection, southeast corner of Elk Grove Boulevard and Big Horn Boulevard intersection, and the southeast corner of the Grant Line Road and Disposal Lane intersection (City of Elk Grove 2017b).

## BICYCLE AND PEDESTRIAN FACILITIES

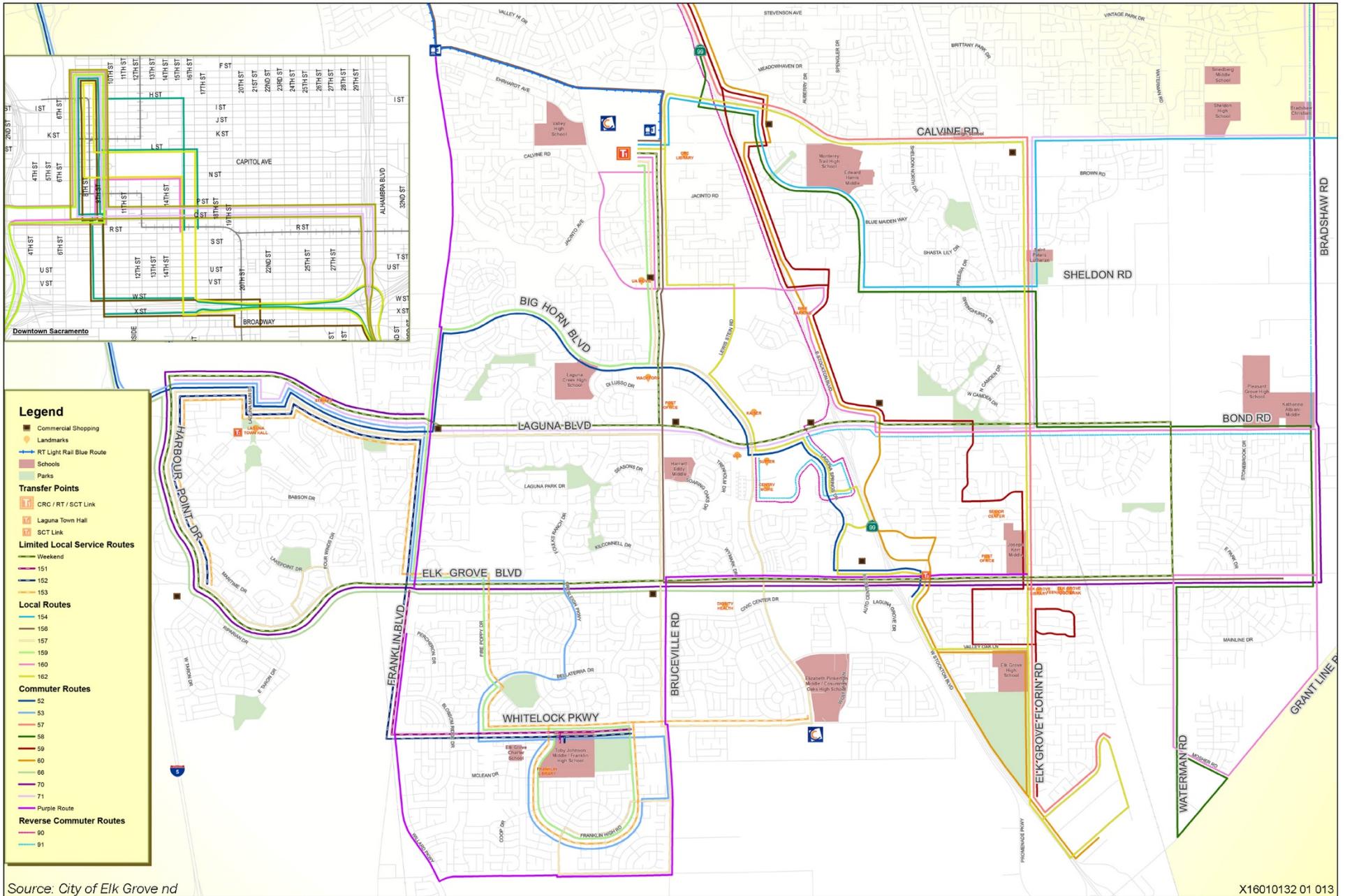
Based on the 2009-2013 American Community Survey, in Elk Grove and the State of California, most residents commute by automobile (drive alone or in carpool) to get to work. In Elk Grove, fewer Elk Grove residents (about 1 percent) rely on active transportation including walking and bicycling to work than the state as a whole (about 4 percent).

Most of the bike paths in the city limits are Class II lanes, which are located on existing streets or highways and are striped for one-way bicycle travel. Below are descriptions of bicycle paths and their classifications.

- ▲ **Class I** Bike Paths provide a completely separated right-of-way for the exclusive use of bicycles and pedestrian with cross-flow minimized.
- ▲ **Class II** Bike Lanes are striped lanes for one-way bike travel on a street or highway.
- ▲ **Class III** Bike Routes provide for shared use with pedestrians or motor vehicle traffic.

The City adopted the City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan (BPTMP) in July 2014. The BPTMP identifies existing facilities opportunities, constraints and destination points for bicycle users and pedestrians in the City of Elk Grove. Existing bicycle facilities, including Class I Bikeways (Multi-Use Trails) that accommodate pedestrians, documented in the BPMP are shown in Exhibit 3.13-6 (Figure 4.3 of the BPTMP).

Sidewalks exist on the north side of Bilby Road and generally along improved roadway frontages on Willard Parkway, Franklin Boulevard, and Bruceville Road.



Source: City of Elk Grove nd

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**Exhibit 3.13-5**

**e-Trans System Map**





## 3.13.2 Regulatory Framework

### FEDERAL

No federal plans, policies, regulations, or laws are applicable to the project.

### STATE

#### State Route 99 & Interstate 5 Corridor System Management Plan

In 2009, Caltrans released the *State Route 99 & Interstate 5 Corridor System Management Plan* (CSMP) that includes portions of SR 99 and I-5 within the study area. Table 7 of this report documents the following existing operations on SR 99 and I-5 within the study area:

- ▲ SR 99 (San Joaquin County Line to Elk Grove Boulevard) – LOS D
- ▲ SR 99 (Elk Grove Boulevard to Mack Road) – LOS F
- ▲ I-5 (Hood-Franklin Road to Laguna Boulevard) – LOS D

The report also indicates a Concept LOS F for both facilities in the study area. The concept LOS represents the minimum acceptable service conditions over the next 20 years.

#### Senate Bill 743

Senate Bill 743, passed in 2013, requires the California Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." OPR is currently updating its CEQA Guidelines to implement SB 743 and is proposing that vehicle miles traveled (VMT) be the primary metric used to identify transportation impacts.

### LOCAL

The project site lies within the jurisdictional boundaries of Sacramento County; therefore, the County's policies would apply. Furthermore, if the SOIA is approved, it would likely lead to annexation to the City of Elk Grove. Thus, applicable policies of the City of Elk Grove's General Plan are described below.

#### Metropolitan Transportation Plan/Sustainable Communities Strategy

The SACOG is responsible for the preparation of, and updates to, the MTP/SCS (SACOG 2016) and the corresponding Metropolitan Transportation Improvement Program (MTIP) for the six-county Sacramento region. The MTP/SCS provides a 20-year transportation vision and corresponding list of projects. The MTIP identifies short-term projects (7-year horizon) in more detail. The current MTP/SCS was adopted by the SACOG board in 2016.

#### I-5 Freeway Subregional Corridor Mitigation Program

The I-5 Freeway Subregional Corridor Mitigation Program (SCMP) is a voluntary development impact fee for new developments within the I-5 corridor between Elk Grove, Downtown Sacramento, and West Sacramento that is intended to be used to construct a set of transportation improvements identified in the SACOG 2016 MTP/SCS. Under the SCMP, a project applicant whose project would generate vehicle trips over the threshold could choose to either pay the fee, which would constitute mitigation of their development project's impacts on the freeway mainline, or conduct a Traffic Impact Study, which would evaluate that project's impact on the freeway system and identify mitigation for those impacts.

According to the *Draft Final Nexus Study for the I-5 Freeway Subregional Corridor Mitigation Program* (DKS Associates 2016), the following roadway improvements would be partially funded by the plan (with the remainder coming from other sources):

- ▲ Construction of HOV lanes on I-5 from Elk Grove to US 50.

Page 36 of the study specifies that “Caltrans would consider the fees as an adequate mitigation for freeway mainline impacts.” Table 18 on Page 32 of the Nexus Study shows the proposed fee per dwelling unit, and per thousand square feet of non-residential space.

### **Sacramento County General Plan of 2005-2030**

The Circulation Element of the Sacramento County General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following LOS policy is relevant to this study:

- ▲ **Policy CI-10:** Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadway and LOS E on urban roadway, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service boundary are considered rural.

### **The City of Elk Grove General Plan**

The Circulation Element of the General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following policies are relevant to this study:

- ▲ **Policy CI-1:** Circulation planning for all modes of travel (vehicle, transit, bicycle, pedestrian, etc.) shall be coordinated with efforts to reduce air pollution.
- ▲ **Policy CI-2:** The City shall coordinate and participate with the City of Sacramento, Sacramento County and Caltrans on roadway improvements that are shared by the jurisdictions in order to improve operations. This may include joint transportation planning efforts, roadway construction, and funding.
- ▲ **Policy CI-3:** The City’s efforts to encourage alternative modes of transportation will therefore focus on incentives to reduce vehicle use, rather than disincentives (which are generally intended to make driving and parking less convenient, more costly, or both). Incentives may include:
  - preferential carpool and vanpool parking,
  - bus turnouts, and
  - pedestrian-friendly project designs.
- ▲ **Policy CI-4:** Specific Plans, Special Planning Areas, and development projects shall be designed to promote pedestrian movement through direct, safe, and pleasant routes that connect destinations inside and outside the plan project area.
- ▲ **Policy CI-5:** The City shall encourage the use of transportation alternatives that reduce the use of personal motor vehicles.
- ▲ **Policy CI-6:** The City shall require that transit service is provided in all areas of Elk Grove, including rural areas, so that transit dependent residents of those areas are not cut off from community services, events, and activities.
- ▲ **Policy CI-8:** The City shall encourage the extension of bus rapid transit and/or light rail service to the planned office and retail areas north of Kammerer Road and west of Highway 99.

- ▲ **Policy CI-10:** The City shall implement the roadway master plan shown in Figure CI-2. The following policies apply to selected roadways:
  - The City shall use the latest version of Caltrans' "Transportation Concept Report" for I-5 and Hwy 99 to determine the planned width of these freeways.
  - "Expanded right-of-way" indicates roadway on which sufficient width is provided for middle two-way turn lane and/or expanded turn pockets at roadway intersections.
  - The City may make improvements to roadways in the Rural Area, when warranted, consistent with the provisions of the Rural Roads Improvement Policy.
  - Improvements to Grant Line Road shall consider regional planning activities and projects (e.g., the Capital SouthEast Connector) and should be considered after effects to the Rural Area have been identified. To the extent feasible, these effects shall be addressed as part of facility design.
- ▲ **CI-10 – Action 1** Require the dedication of right of way and the installation of roadway improvements as part of the review and approval of development projects. The City shall require the dedication of major road rights of way (general, arterials and thoroughfares) at the earliest opportunity in the development process in order to implement this policy.
- ▲ **Policy CI-11:** The City shall assist Caltrans in implementing improvements to I-5 and Hwy 99 within the city.
- ▲ **Policy CI-12:** The City supports efforts to develop the Capital SouthEast Connector, providing a regional roadway connection from Interstate 5, and State Route 99 in Elk Grove to Highway 50. The City recognizes the adopted conceptual route alignment for the Capital SouthEast Connector, utilizing Kammerer Road and Grant line Road through the City.
- ▲ **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. The City acknowledges that the Capital SouthEast Connector has identified higher LOS standards for certain segments. The City will strive to achieve these standards to the extent feasible and will work with the JPA as necessary.
- ▲ **Policy CI-14:** The City recognizes that Level of Service D may not be achieved on some roadway segments, and may also not be achieved at some intersection. Roadway on which LOS D is projected to be exceeded are shown in the General Plan Background Report, based on the latest traffic modeling conducted by the City. On these roadways, the City shall ensure that improvements to construct the ultimate roadway system as show in this Circulation Element are completed, with the recognition that maintenance of the desired level of service may not be achievable.
- ▲ **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 established traffic impact or similar fees shall be considered to provide compliance with the requirement 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 require the payment of additional fees if necessary to cover the fair share cost of facilities not included in the fee program.
- ▲ **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 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.

- ▲ **Policy CI-21:** The City shall require the installation of traffic pre-emption devices for emergency vehicles (police and fire) at all newly constructed intersections, and shall seek to retrofit all existing intersections to incorporate these features.
- ▲ **Policy CI-22:** Where traffic calming devices or techniques are employed, the City shall coordinate design and implementation with the Elk Grove Police Department and the Elk Grove Community Services District to ensure adequate access for police and fire vehicles.
- ▲ **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.

#### **City of Elk Grove General Plan Update**

The City is developing VMT standards and thresholds of significance to be incorporated into the proposed General Plan Update and the City's Traffic Analysis Guidelines. Draft City mobility policies identify a proposed VMT target of a 15 percent reduction from 2015 VMT conditions (City of Elk Grove 2017a).

### **3.13.3 Environmental Impacts and Mitigation Measures**

#### **ANALYSIS METHODOLOGY**

The transportation and circulation analysis methodology uses the anticipated travel characteristics of the development anticipated in the conceptual land use plan (see Exhibit 2-4 and Table 2-1), trip generation and mode split assumptions, and vehicle trip distribution, as described below.

As identified in Chapter 2, "Project Description," the SOIA would expand the City of Elk Grove's sphere of influence to include this project. Approval of this project would not modify the existing Sacramento County agricultural land use designations and zoning for the SOIA and would not entitle any development. Future development would occur at a later date if LAFCo approves annexation of the SOIA to the City. Development is not expected to occur in the SOIA for some time as the City of Elk Grove currently has entitled and unbuilt residential capacity to meet its housing needs beyond the year 2025. Therefore, this traffic impact analysis utilizes year 2036 conditions to quantify traffic impacts of the project in comparison to both year 2036 conditions and existing conditions.

#### **Travel Demand Forecasting**

A modified version of SACOG's MTP/SCS travel demand forecasting (TDF) model was used to develop daily, AM, and PM peak hour traffic volumes for the study facilities. The official version of the base year model is generally representative of 2012 conditions and the future year model has a 2036 forecast year. However, as is standard practice with large area travel demand models, a thorough model review was completed and the model was refined to ensure that it produced reasonable results in the study area. The following refinements were implemented in the study area:

- ▲ added roadway network detail;
- ▲ updated land use to reflect 2015 conditions in the study area;
- ▲ refined the traffic analysis zones (TAZs) to get more refined loading of trips in the study area;
- ▲ updated network attributes in the study area to reflect existing conditions (e.g., verified roadway network speeds, number of lanes on the roadway, and roadway capacities to reflect existing conditions);
- ▲ updated the future year roadway network in the study area to reflect the SACOG MTP/SCS constrained roadway network; and

- ▲ updated the future land use information to reflect approved and reasonably foreseeable projects in the study area.

Exhibit 3.13-7 shows number of travel lanes (two-way total) on study roadways under cumulative conditions. Specific information related to the model’s performance is described below.

**Base Year Model Validation**

Before any model can be applied for use in a major specific plan application, it should be evaluated against specific validation criteria identified by Caltrans, the Federal Highways Administration (FHWA), and the California Transportation Commission (CTC). These criteria were developed to ensure that a model is developed such that it can accurately forecast existing conditions based on land use and roadway network information, which improves the model’s ability to accurately forecast future conditions. The state-of-the-practice for developing defensible forecasts for changes in the roadway network and/or changes in proposed land use is to use a valid base year model.

The first step of any model validation is to ensure that the model generally produces similar results to existing counts. Please note that, because the model is being used to generate AM peak hour and PM peak hour forecasts, the model must be valid at study facilities for both time periods.

Key metrics for model validation guidelines are described below:

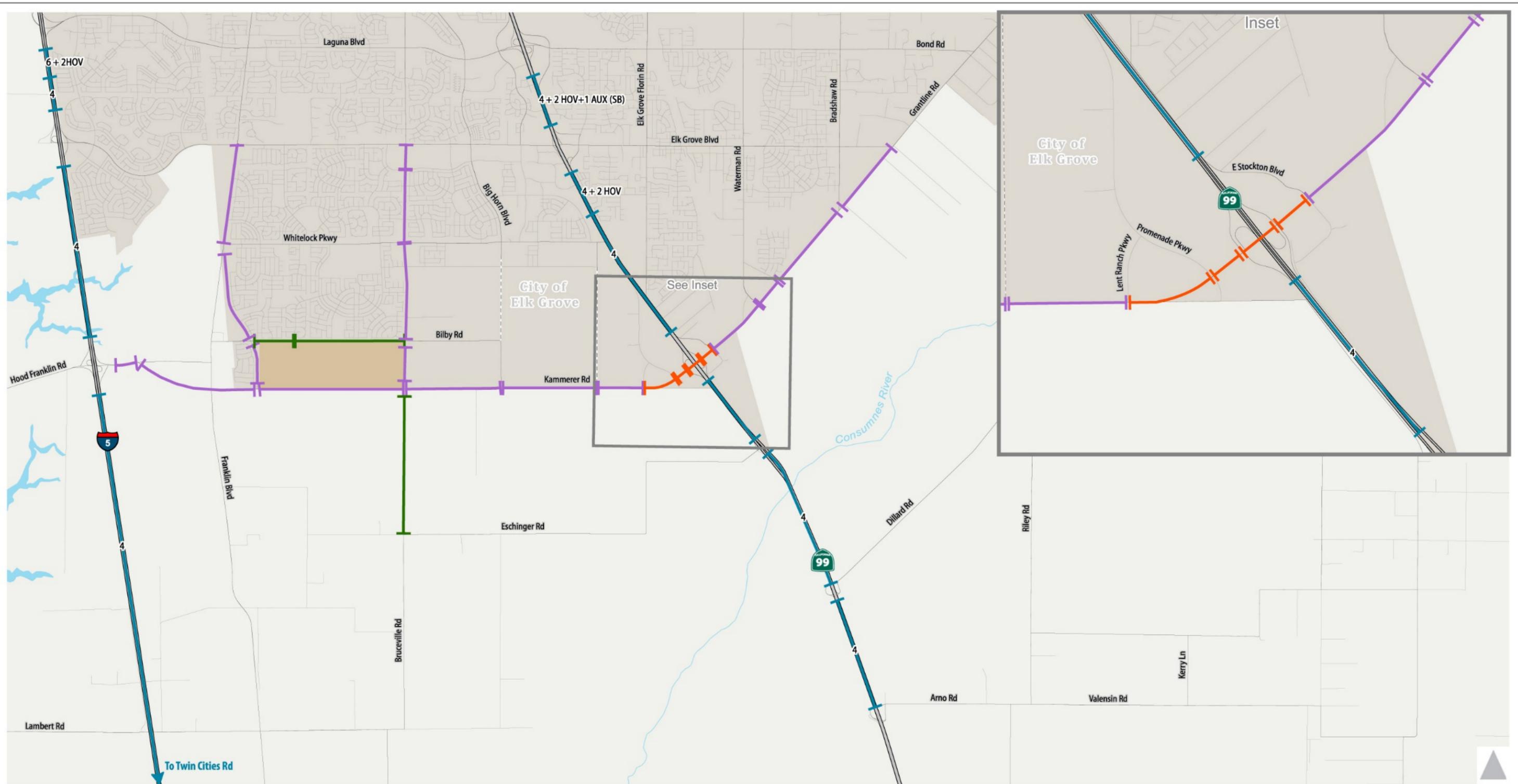
- ▲ The volume-to-count ratio is computed by dividing the volume assigned by the model and the actual traffic count for individual roadways (or intersections). The volume-to-count ratio should be less than 10 percent.
- ▲ The deviation is the difference between the model volume and the actual count divided by the actual count. Caltrans provides guidance on the maximum allowable deviation by facility type (e.g., lower-volume roadways can have a higher deviation than higher-volume roadways). 75 percent of the study facilities should be within the maximum allowable deviation.
- ▲ The correlation coefficient estimates the correlation between the actual traffic counts and the estimated traffic volumes from the model. The correlation coefficient should be greater than 0.88.
- ▲ The percent Root Mean Square Error (RMSE) is the square root of the model volume minus the actual count squared divided by the number of counts. It is a measure similar to standard deviation in that it assesses the accuracy of the entire model. The RMSE should be less than 40 percent.
- ▲ The model validation statistics are summarized in Table 3.13-5. As shown in Table 3.13-5, the model meets or exceeds the identified model validation target criteria in the study area. As such, the model is deemed appropriate for use in this assessment.

**Table 3.13-5 Travel Demand Forecasting Model Sub-Area Validation**

Performance Metric	Target Criteria	Peak Hour Model Validation	
		AM	PM
Model to Count Ratio	Between 0.90 and 1.10	0.91	0.95
Percent Within Maximum Deviation	> 75%	91%	91%
Percent Root Mean Square Error	< 40%	22%	19%
Correlation Coefficient	> 0.88	0.93	0.94

Notes: Validation based on 35 count locations.

Source: compiled by Fehr & Peers 2017



- Roadway Segment (2 Lanes)
- Roadway Segment (4 Lanes)
- Roadway Segment (6 Lanes)
- Future Roadway Segment
- Proposed Bilby Ridge Sphere of Influence
- Freeway Segment Number of Lanes

Source: Fehr & Peers 2017  
X16010132 01.007

Exhibit 3.13-7

Roadway Lanes (Two-Way Total) - Cumulative Conditions





### **Traffic Volume Forecast Development**

The TDF model was used to develop traffic volume forecasts for project buildout conditions under cumulative conditions. The future year TDF model was modified to reflect buildout development levels in the City of Elk Grove under its General Plan, including buildout of the Laguna Ridge Specific Plan, Sterling Meadows, the Southeast Policy Area, and buildout of the following projects considered to be reasonably foreseeable:

- ▲ Wilton Rancheria Casino Resort Project,
- ▲ Elk Grove Multi-Sport Park Complex,
- ▲ Kammerer Road/Highway 99 Sphere of Influence Amendment, and
- ▲ Elk Grove Promenade (previously referred to as Lent Ranch Mall).

Year 2036 levels of development are assumed outside the City of Elk Grove. Project land use inputs used for analysis are shown in Table 3.13-6. The project land uses were added to the cumulative year traffic model to develop traffic volume forecasts under cumulative conditions without and with the project.

**Table 3.13-6 Bilby Ridge Sphere of Influence Amendment Travel Forecasting Model Land Use Inputs**

Households		Employment					K-12 Enrollment
		Retail	Non-Retail			Manufacturing Other	
Single Family	Multi-Family		General Office	Medical Office	Education		
1,848	-	611	650	108	50	-	1,000
Notes:							
Source: compiled by Fehr & Peers 2017							

All forecasts are adjusted using a growth increment method (i.e., the difference method) that adds the growth in forecasts travel demand to existing traffic counts. The base year TDF model transportation network (in the study area) was modified to account of changes to the network that have occurred between 2012 and 2015 (i.e., when the traffic counts were collected). The 2036 transportation network is consistent with programmed improvements listed in the Final MTP/SCS 2016 project list.

### **Project Trip Generation**

After the changes described above were completed, the modified TDF model was run for each analysis scenario. The TDF model accounts for the interaction of land uses in the project and in the region. For example, by design, land use diversity (i.e., a mix of residential, employment, and shopping uses), would result in trips that remain within the project site, trips being made by non-automobile modes (i.e., walk and bike trips), or result in shorter trips and reduced vehicle travel.

Table 3.13-7 summarizes trip generation for the anticipated level of development following potential annexation, based on the trip generation from the modified SACMET TDF model, which was used for the transportation analysis. For comparison, Table 3.13-8 summarizes trip generation based on published sources. The trip generation rates identified in Table 3.13-8 are average rates for the land use categories referenced. As shown in Table 3.3-8, the trip generation estimated using published trip generation rates is comparable to the trip generation from the modified SACMT TDF model and are well within the range of potential trip generation rates for each land use category.

**Table 3.13-7 Bilby Ridge Vehicle Trip Generation – Modified SACMET TDF Model**

Development		Total Vehicle Trips <sup>1</sup>		
		Daily	AM	PM
Build-out	Total Trips	34,529	2,730	3,097
	Internal Trips	3,926	2,439	2,739
	External Trips	30,603	2,439	2,739

Notes:  
<sup>1</sup>Trip generation is based on the Bilby Ridge Modified SACMET TDF model.  
 Source: compiled by Fehr & Peers 2017

**Table 3.13-8 Bilby Ridge Vehicle Trip Generation – Published Rates**

ITE Land Use	Quantity	Units	Trip Rate			Trips		
			Daily	AM	PM	Daily	AM	PM
Single Family Detached Housing (210)	1,846	Dwelling Units	9.52	0.75	1.00	17,574	1,384	1,846
General Office Building (710)	159.2	1,000 SF	11.03	1.56	1.49	1,756	249	237
Shopping Center (820)	399.2	1,000 SF	42.70	0.96	3.71	17,045	384	1,481
Elementary School (520)	50	Employees	15.71	5.33	1.76	786	267	88
Total Trips						37,161	2,284	3,652
Internal Trips <sup>1</sup>						5,867	471	928
External Trips						31,294	1,813	2,724

Notes: Trip generation is based on the trip equations from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (9<sup>th</sup> Edition).  
<sup>1</sup>Internal trips based on MXD+  
 Source: compiled by Fehr & Peers 2017

In reviewing the traffic volume forecasts, different scenarios such as cumulative no project versus cumulative plus project should be treated as different “snapshots” of the future. When changing land uses or roadway networks between future scenarios, the model produces a new set of forecasts reflecting different trip distribution and trip assignment results based on the changed input. This capability of the model recognizes that travel patterns under existing conditions or 20 or more years in the future would likely be different if a significant roadway link is excluded or a major new land-use development is added. Under this approach, the project’s traffic is not added to a fixed amount of traffic under the no project scenario. Therefore, the project may contribute traffic to many roadways under the cumulative no project and cumulative plus project scenarios, but may not necessarily result in higher volumes on a roadway segment when compared to the no project scenarios, and therefore not cause an impact.

**Project Vehicle Trip Distribution**

The following summarizes the general trip distribution with build-out of the Bilby Ridge project site consistent with the conceptual land use plan:

- ▲ To/From the North – 51 percent
- ▲ To/From the South – 1 percent
- ▲ To/From the East – 36 percent

- ▲ To/From the West – 12 percent

### **Traffic Volume Forecasts**

The traffic volume forecasts, developed using the methodology discussed above, are presented in the following exhibits.

- ▲ Exhibit 3.13-8 displays cumulative daily roadway segment volumes (two-way total).
- ▲ Exhibit 3.13-9 displays cumulative AM and PM peak hour directional roadway segment volumes.
- ▲ Exhibit 3.13-10 displays cumulative plus project daily roadway segment volumes (two-way total).
- ▲ Exhibit 3.13-11 displays cumulative plus project AM and PM peak hour directional roadway segment volumes.

## **THRESHOLDS OF SIGNIFICANCE**

The significance criteria used to evaluate the project impacts to transportation and traffic under CEQA are based on Appendix G of the CEQA Guidelines, and thresholds of significance adopted by Sacramento County and the City of Elk Grove in applicable general plans and previous environmental documents.

### **Roadways**

Roadway system thresholds for Sacramento County and City of Elk Grove facilities are summarized below. The impact analysis also qualitatively evaluates potential transportation impacts from project VMT in relation to SACOG 2016 MTP/SCS VMT reduction efforts and future VMT thresholds anticipated under the City of Elk Grove General Plan Update. No numeric thresholds have been adopted by the state, SACOG, or the City of Elk Grove as of the preparation of this Draft EIR.

#### **Sacramento County**

The following thresholds of significance were used to determine if an impact is significant and requires mitigation:

- ▲ A project is considered to have a significant effect if it would:
  - Result in a roadway operating at an acceptable LOS (i.e., LOS E in urban areas and LOS D in rural areas) to deteriorate to an unacceptable LOS.
  - Increase the volume-to-capacity ratio (V/C) by more than 0.05 at a roadway that is operating at an acceptable LOS (i.e., LOS E in urban areas and LOS D in rural areas) without the project.

#### **City of Elk Grove**

An impact to a roadway segment is considered significant, and mitigation measures must be identified when:

- ▲ The traffic generated by the project degrades the LOS from an acceptable LOS D or better (without the project) to an unacceptable LOS E or LOS F (with the project). For facilities that are or will be (cumulative condition), operating at unacceptable levels of service without the project, an impact is considered significant if the project: 1) increases average delay at intersections by more than 5 seconds, or 2) increases the V/C ratio by 0.05 or more on a roadway.

### **Freeway Facilities**

An impact is considered significant on freeway facilities if the project causes the facility to change from acceptable to unacceptable LOS.

For facilities, which are or will be (in the cumulative condition), operating at unacceptable LOS without the project, an impact is considered significant if the project:

- ▲ increases the V/C ratio on a freeway mainline segment or freeway ramp junction by 0.05, or
- ▲ increases the number of peak hour vehicles on a freeway mainline segment or freeway ramp junction ramp junction by more than 5 percent.

According to the Guide for the Preparation of Traffic Impact Studies (Caltrans 2001), Caltrans strives to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities; therefore, LOS D was selected as the minimum standard for all study freeway facilities.

### **Bicycle/Pedestrian/Transit Facilities**

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

### **Transportation Hazards**

An impact is considered significant if the project would substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

### **Emergency Access**

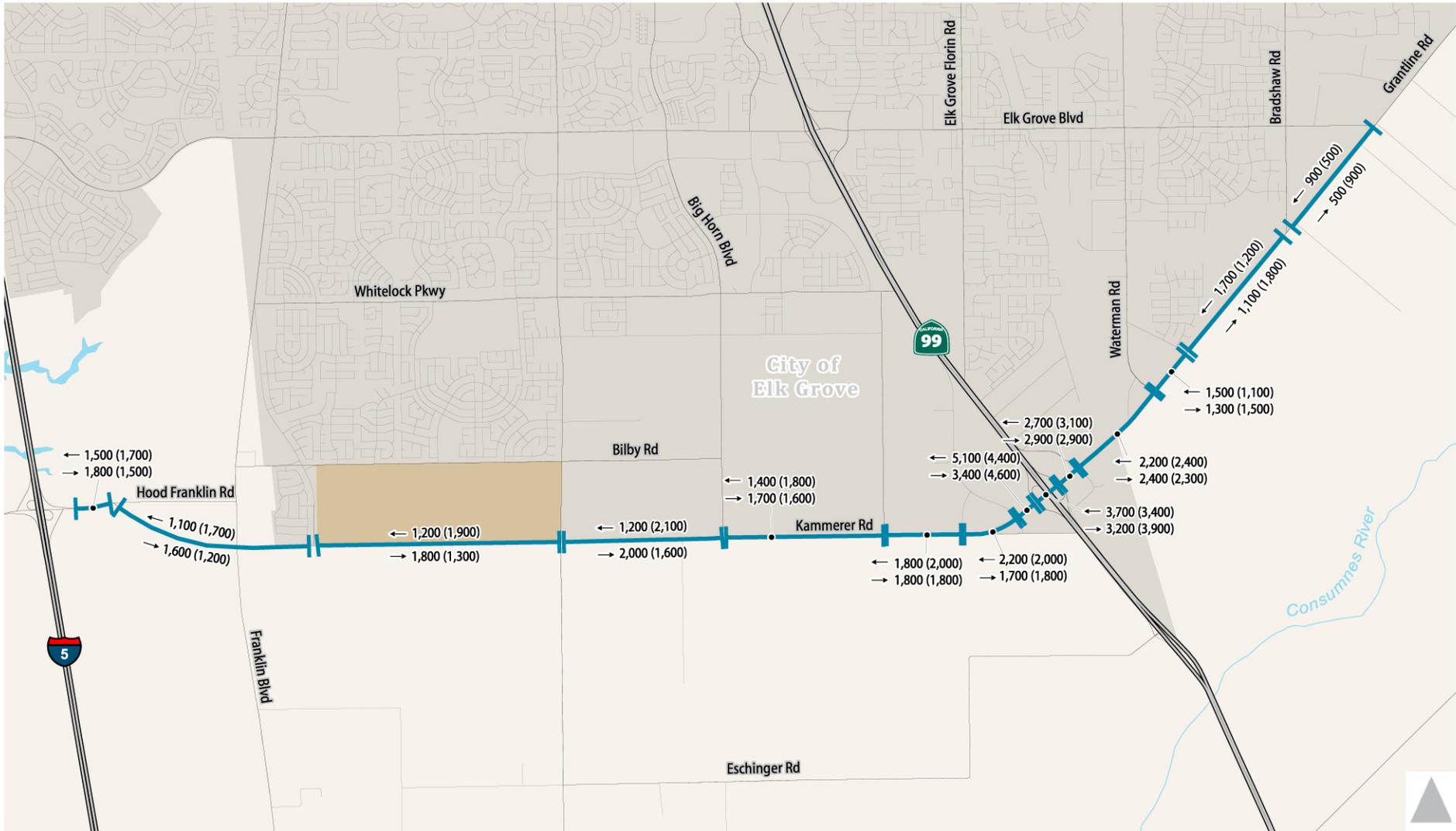
An impact to emergency access are considered significant if the project would result in inadequate emergency access.

## **ISSUES NOT EVALUATED FURTHER**

The closest public airport is Franklin Field, a small airport located 4 miles south of the SOIA area. While there is record of a private airport (Flying B Ranch Airport) 2 miles south of the SOIA area, it appears to be no longer in operation. The project would not have impacts on air traffic, and would not result in incompatible uses in the study area. This issue is not discussed further in this Draft EIR.







← AM (PM)  
→ AM (PM) Peak Hour Traffic Volume

Proposed Bilby Ridge Sphere of Influence

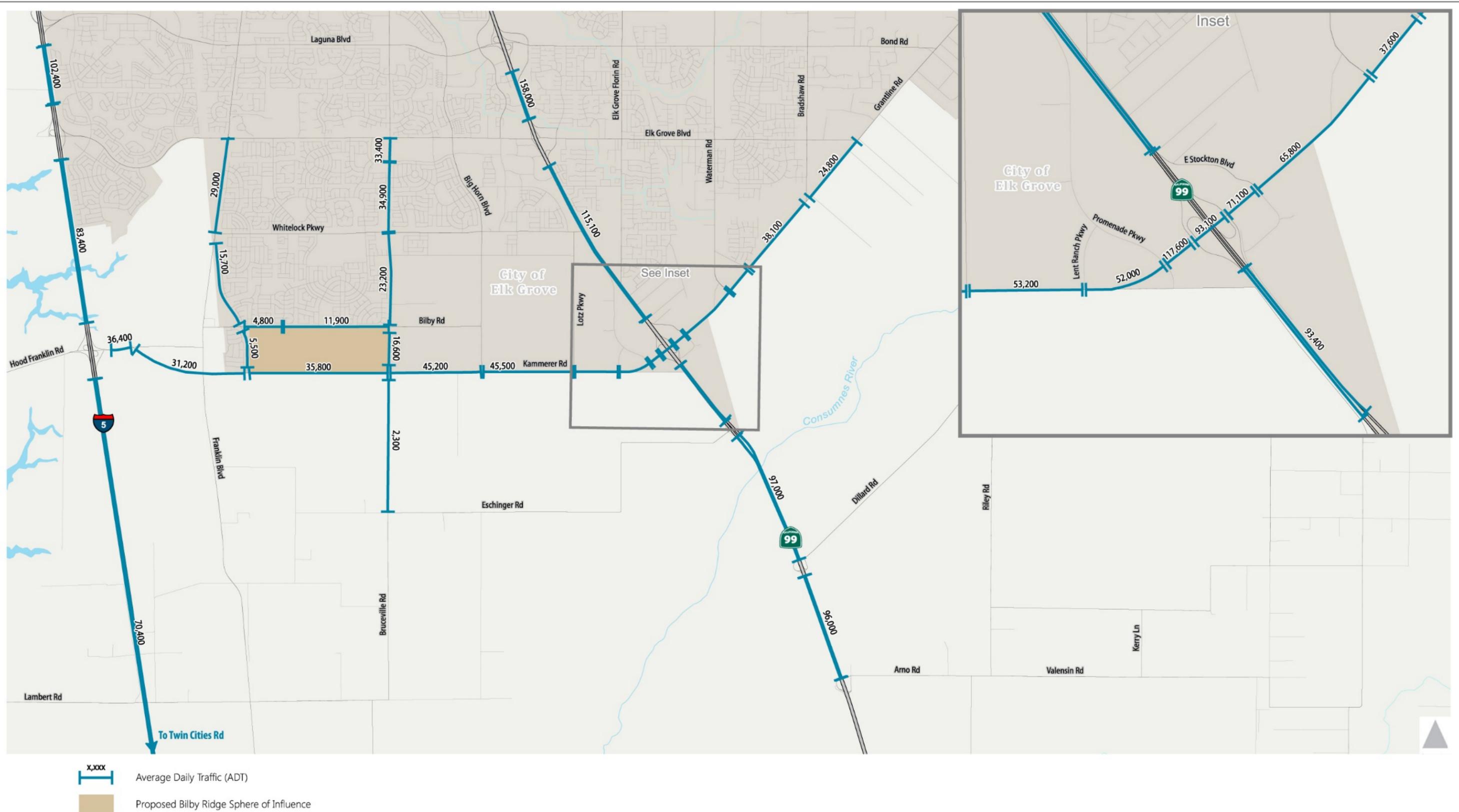
Source: Fehr & Peers 2017  
X16010132 01 009

Exhibit 3.13-9

Peak Hour Traffic Volumes – Cumulative Conditions



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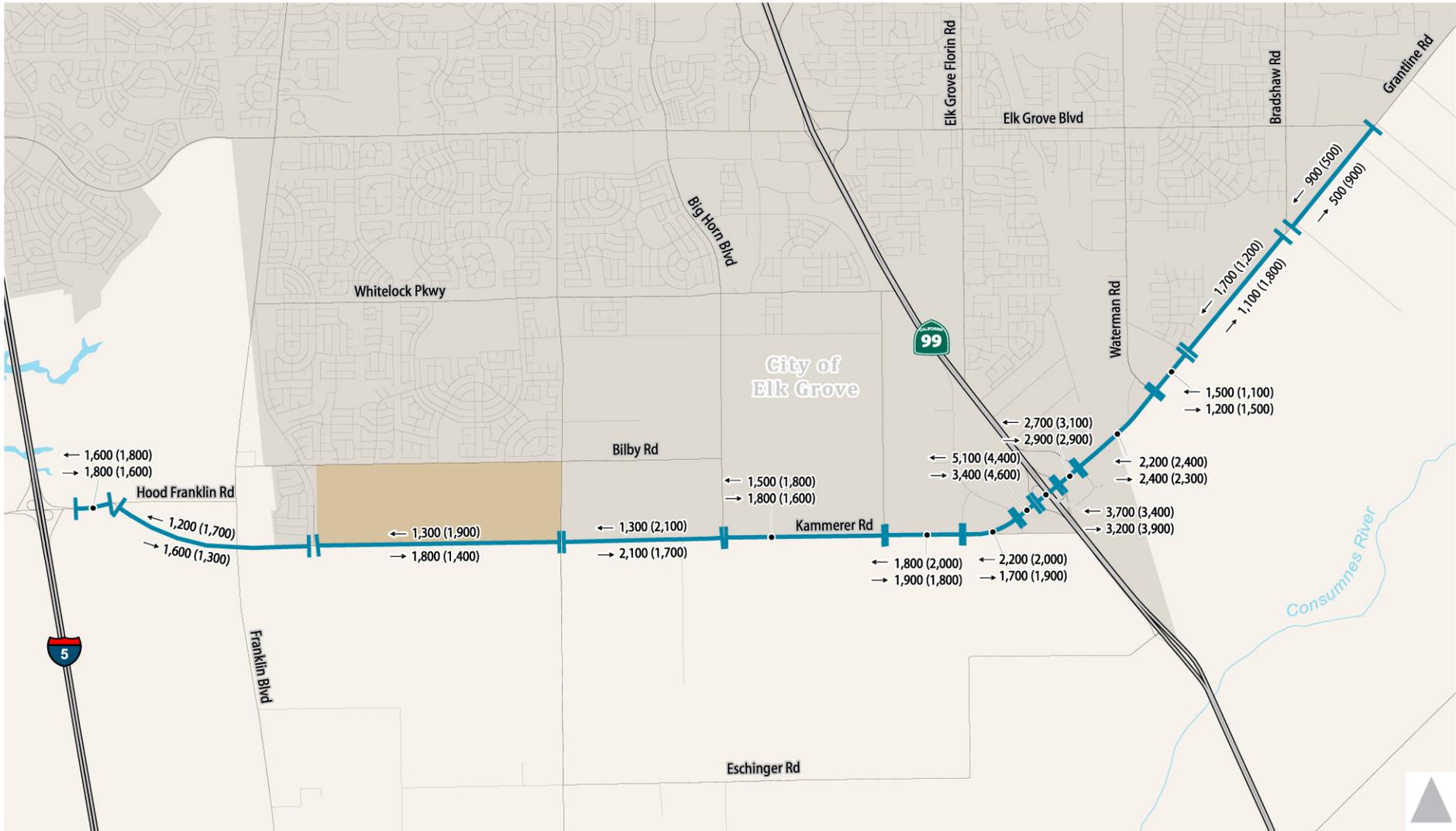
Source: Fehr & Peers 2017  
X16010132 01 010

Exhibit 3.13-10

Average Daily Traffic Volumes – Cumulative Plus Project Conditions







← AM (PM) Peak Hour Traffic Volume  
 → AM (PM)

Proposed Bilby Ridge Sphere of Influence

Source: Fehr & Peers 2017  
 X16010132 01 011

Exhibit 3.13-11

Peak Hour Traffic Volumes – Cumulative Plus Project Conditions



## IMPACT ANALYSIS

### Impact 3.13-1: Impacts to Roadway Operation.

Approval of the SOIA and future development of the SOIA area upon annexation could result in unacceptable operations and add traffic to study roadway segments that are projected to operate unacceptably. Potential future development of the SOIA area would also result in an increase in VMT in the project area. This would be a **significant** impact.

#### Traffic Operations

The SOIA would not directly result in additional traffic on area roadways. Rather, by amending the City of Elk Grove's SOI and providing a conceptual land use plan, the project would inform long-term planning. Through this process, roadway upgrades could be planned and funded prior to annexation or subsequent development.

The following addresses the potential for development of the SOIA area consistent with the conceptual land use plan, which may indirectly result from approval of the SOIA, to adversely affect roadway operation. Because annexation and development of the area is not anticipated in the near term, analysis of the development's effects on existing conditions would not adequately address potential effects. For this reason, the development's effects on future (2036) conditions have been evaluated.

Table 3.13-9 summarizes roadway segment operations based on daily (two-way total) roadway segment traffic volume forecasts. Under cumulative no project conditions, all study roadway segments on Kammerer Road and Grant Line Road between Bruceville Road and Bradshaw Road would operate unacceptably based on the daily roadway segment operations analysis.

**Table 3.13-9 Daily Roadway Segment Operations – Cumulative Plus Project Conditions**

Roadway Segment	Threshold LOS	Lanes (Two-Way Total) <sup>1</sup>	Daily Capacity	Cumulative No Project Conditions			Cumulative Plus Project Conditions		
				Daily Volume	LOS	V/C Ratio	Daily Volume	LOS	V/C Ratio
1. Hood Franklin Rd - I-5 NB Ramps to Kammerer Rd	D	4	40,000	34,400	D	0.86	36,400	<u>E</u>	<u>0.91</u>
2. Kammerer Rd - Hood Franklin Rd to Willard Pkwy	D	4	40,000	29,100	C	0.73	31,200	C	0.78
3. Kammerer Rd - Willard Pkwy to Bruceville Rd	D	4	40,000	32,500	D	0.81	35,800	D	0.90
4. Kammerer Rd - Bruceville Rd to Big Horn Blvd	D	4	36,000	41,400	F	<b>1.15</b>	45,200	<u>F</u>	<u>1.26</u>
5. Kammerer Rd - Big Horn Blvd to Lotz Pkwy	D	4	36,000	43,700	F	<b>1.21</b>	45,500	<u>F</u>	<u>1.26</u>
6. Kammerer Rd - Lotz Pkwy to Lent Ranch Pkwy	D	4	36,000	52,600	F	<b>1.46</b>	53,200	F	<b>1.48</b>
7. Kammerer Rd - Lent Ranch Pkwy to Promenade Pkwy	D	6	54,000	51,400	E	<b>0.95</b>	52,000	E	<b>0.96</b>
8. Kammerer Rd - Promenade Pkwy to SR 99 SB Ramps	D	6	54,000	117,000	F	<b>2.17</b>	117,600	F	<b>2.18</b>
9. Grant Line Rd - SR 99 SB Ramps to SR 99 NB Ramps	D	6	54,000	92,800	F	<b>1.72</b>	93,100	F	<b>1.72</b>
10. Grant Line Rd - SR 99 NB Ramps to Survey Rd-E. Stockton Blvd	D	6	54,000	71,000	F	<b>1.31</b>	71,100	F	<b>1.32</b>

**Table 3.13-9 Daily Roadway Segment Operations – Cumulative Plus Project Conditions**

Roadway Segment	Threshold LOS	Lanes (Two-Way Total) <sup>1</sup>	Daily Capacity	Cumulative No Project Conditions			Cumulative Plus Project Conditions		
				Daily Volume	LOS	V/C Ratio	Daily Volume	LOS	V/C Ratio
11. Grant Line Rd - Survey Rd-E. Stockton Blvd to Waterman Rd	D	4	36,000	65,600	F	<b>1.82</b>	65,800	F	<b>1.83</b>
12. Grant Line Rd - Waterman Rd to Mosher Rd	D	4	36,000	37,600	F	<b>1.04</b>	37,600	F	<b>1.04</b>
13. Grant Line Rd - Mosher Rd to Bradshaw Rd	D	4	36,000	37,900	F	<b>1.05</b>	38,100	F	<b>1.06</b>
14. Grant Line Rd - Bradshaw Rd to Elk Grove Blvd	D	4	36,000	24,700	B	0.69	24,800	B	0.69
15. Willard Pkwy - Kammerer Rd to Bilby Rd	D	4	36,000	4,300	A	0.12	5,500	A	0.15
16. Bilby Rd - Willard Pkwy to Coop Dr	D	4	18,000	3,700	A	0.21	4,800	A	0.27
17. Bilby Rd - Coop Dr to Bruceville Rd	D	4	18,000	8,800	A	0.49	11,900	B	0.66
18. Bruceville Rd - Bilby Rd to Whitelock Pkwy	D	4	36,000	20,600	A	0.57	23,200	B	0.64
19. Bruceville Rd - Whitelock Pkwy to Backer Ranch Rd-Civic Center Dr	D	4	36,000	31,800	D	0.88	34,900	<u>E</u>	<u>0.97</u>
20. Bruceville Rd - Backer Ranch Rd-Civic Center Dr to Elk Grove Blvd	D	4	36,000	31,100	D	0.86	33,400	<u>E</u>	<u>0.93</u>
21. Willard Pkwy - Bilby Rd to Franklin Blvd	D	4	36,000	13,400	A	0.37	15,700	A	0.44
22. Franklin Rd - Whitelock Pkwy to Elk Grove Blvd	D	4	36,000	27,300	C	0.76	29,000	D	0.81
23. Bruceville Rd - Bilby Rd to Kammerer Rd	D	4	36,000	18,700	A	0.52	16,600	A	0.46
24. Bruceville Rd - Kammerer Rd to Eschinger Rd	D	2	17,000	2,300	B	0.14	2,300	B	0.14
25. I-5 Mainline - Elk Grove Blvd to Laguna Blvd	E	4	80,000	101,100	F	<b>1.26</b>	102,400	<u>F</u>	<u>1.28</u>
26. I-5 Mainline - Hood Franklin Rd to Elk Grove Blvd	E	4	80,000	81,800	F	<b>1.02</b>	83,400	<u>F</u>	<u>1.04</u>
27. I-5 Mainline - Twin Cities Rd to Hood Franklin Rd	E	4	80,000	70,400	D	0.88	70,400	D	0.88
28. SR 99 Mainline - Elk Grove Blvd to Laguna Blvd-Bond Rd	E	4 +1 AUX	90,000	156,000	F	<b>1.73</b>	158,000	<u>F</u>	<u>1.76</u>
29. SR 99 Mainline - Grant Line Rd to Elk Grove Blvd	E	4	80,000	115,300	F	<b>1.44</b>	115,100	F	<b>1.44</b>
30. SR 99 Mainline - Eschinger Rd to Grant Line Rd	E	4	80,000	93,100	F	<b>1.16</b>	93,400	<u>F</u>	<u>1.17</u>
31. SR 99 Mainline - Eschinger Rd to Dillard Rd	E	4	80,000	96,800	F	<b>1.21</b>	97,000	<u>F</u>	<u>1.21</u>
32. SR 99 Mainline - Arno Rd to Dillard Rd	E	4	80,000	95,800	F	<b>1.20</b>	96,000	<u>F</u>	<u>1.20</u>

Notes: **Bold** indicates level of service worse than threshold level of service. **Bold and underline** indicates a significant impact as compared to cumulative no project conditions. LOS = level of service. V/C = volume-to-capacity. AUX = auxiliary lane.

<sup>1</sup> The number of lanes listed for I-5 and SR 99 freeway segments are the two-way total of mainline general-purpose lanes.

Source: compiled by Fehr & Peers 2017

As shown in Table 3.13-9, the addition of traffic from development of the project area would result in unacceptable operations on Hood Franklin Road and segments of Bruceville Road north of Whitelock Parkway under cumulative conditions as well as compared to existing level of service operations (see Table 3.13-2). In addition, the development would exacerbate unacceptable operations under cumulative no project conditions on Kammerer Road and Grant Line Road between Bruceville Road and Bradshaw Road,

which would result in impacts on two of these segments, based on established significance criteria. These roadway operation impacts may also affect the response times for emergency vehicles and law enforcement. These roadway segments would also worsen in operation as compared to existing conditions.

The roadway analysis based on peak hour directional volumes, shown in Table 3.13-10, is consistent with the results presented in Table 3.13-9. A notable difference is the segment of Hood Franklin Road, which would operate acceptably based on the peak hour directional analysis. No significant peak hour directional level of service impacts would occur under existing conditions (see Table 3.13-3).

**Table 3.13-10 Peak Hour Directional Roadway Segment Operations – Cumulative Plus Project Conditions**

Roadway	From	To	Threshold LOS	Lanes (One-Way)	Peak Hour Capacity	Cumulative No Project Conditions						Cumulative Plus Project Conditions Peak Hour					
						AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
						Volume	LOS	V/C Ratio	Volume	LOS	V/C Ratio	Volume	LOS	V/C Ratio	Volume	LOS	V/C Ratio
1. Hood Franklin Rd	I-5 NB Ramps	Kammerer Rd	D	2	3,870	1,800	A	0.47	1,500	A	0.39	1,800	A	0.47	1,600	A	0.41
	Kammerer Rd	I-5 NB Ramps	D	2	3,870	1,500	A	0.39	1,700	A	0.44	1,600	A	0.41	1,800	A	0.47
2. Kammerer Rd	Hood Franklin Rd	Willard Pkwy	D	2	3,870	1,600	A	0.41	1,200	A	0.31	1,600	A	0.41	1,300	A	0.34
	Willard Pkwy	Hood Franklin Rd	D	2	3,870	1,100	A	0.28	1,700	A	0.44	1,200	A	0.31	1,700	A	0.44
3. Kammerer Rd	Willard Pkwy	Bruceville Rd	D	2	3,870	1,800	A	0.47	1,300	A	0.34	1,800	A	0.47	1,400	A	0.36
	Bruceville Rd	Willard Pkwy	D	2	3,870	1,200	A	0.31	1,900	A	0.49	1,300	A	0.34	1,900	A	0.49
4. Kammerer Rd	Bruceville Rd	Big Horn Blvd	D	2	1,820	2,000	F	<b>1.10</b>	1,600	D	0.88	2,100	F	<b>1.15</b>	1,700	E	<b>0.93</b>
	Big Horn Blvd	Bruceville Rd	D	2	1,820	1,200	B	0.66	2,100	F	<b>1.15</b>	1,300	C	0.71	2,100	F	<b>1.15</b>
5. Kammerer Rd	Big Horn Blvd	Lotz Pkwy	D	2	1,820	1,700	E	<b>0.93</b>	1,600	D	0.88	1,800	E	<b>0.99</b>	1,600	D	0.88
	Lotz Pkwy	Big Horn Blvd	D	2	1,820	1,400	C	0.77	1,800	E	<b>0.99</b>	1,500	D	0.82	1,800	E	<b>0.99</b>
6. Kammerer Rd	Lotz Pkwy	Lent Ranch Pkwy	D	2	1,820	1,800	E	<b>0.99</b>	1,800	E	<b>0.99</b>	1,900	F	<b>1.04</b>	1,800	E	<b>0.99</b>
	Lent Ranch Pkwy	Lotz Pkwy	D	2	1,820	1,800	E	<b>0.99</b>	2,000	F	<b>1.10</b>	1,800	E	<b>0.99</b>	2,000	F	<b>1.10</b>
7. Kammerer Rd	Lent Ranch Pkwy	Promenade Pkwy	D	3	2,740	1,700	B	0.62	1,800	B	0.66	1,700	B	0.62	1,900	B	0.69
	Promenade Pkwy	Lent Ranch Pkwy	D	3	2,740	2,200	D	0.80	2,000	C	0.73	2,200	D	0.80	2,000	C	0.73
8. Kammerer Rd	Promenade Pkwy	SR 99 SB Ramps	D	3	2,740	3,400	F	<b>1.24</b>	4,600	F	<b>1.68</b>	3,400	F	<b>1.24</b>	4,600	F	<b>1.68</b>
	SR 99 SB Ramps	Promenade Pkwy	D	3	2,740	5,100	F	<b>1.86</b>	4,400	F	<b>1.61</b>	5,100	F	<b>1.86</b>	4,400	F	<b>1.61</b>
9. Grant Line Rd	SR 99 SB Ramps	SR 99 NB Ramps	D	3	2,740	3,200	F	<b>1.17</b>	3,900	F	<b>1.42</b>	3,200	F	<b>1.17</b>	3,900	F	<b>1.42</b>
	SR 99 NB Ramps	SR 99 SB Ramps	D	3	2,740	3,700	F	<b>1.35</b>	3,400	F	<b>1.24</b>	3,700	F	<b>1.35</b>	3,400	F	<b>1.24</b>
10. Grant Line Rd	SR 99 NB Ramps	Survey Rd-E. Stockton Blvd	D	3	2,740	2,900	F	<b>1.06</b>	2,900	F	<b>1.06</b>	2,900	F	<b>1.06</b>	2,900	F	<b>1.06</b>
	Survey Rd-E. Stockton Blvd	SR 99 NB Ramps	D	3	2,740	2,700	E	<b>0.99</b>	3,100	F	<b>1.13</b>	2,700	E	<b>0.99</b>	3,100	F	<b>1.13</b>
11. Grant Line Rd	Survey Rd-E. Stockton Blvd	Waterman Rd	D	2	1,820	2,400	F	<b>1.32</b>	2,300	F	<b>1.26</b>	2,400	F	<b>1.32</b>	2,300	F	<b>1.26</b>

**Table 3.13-10 Peak Hour Directional Roadway Segment Operations – Cumulative Plus Project Conditions**

Roadway	From	To	Threshold LOS	Lanes (One-Way)	Peak Hour Capacity	Cumulative No Project Conditions						Cumulative Plus Project Conditions Peak Hour					
						AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
						Volume	LOS	V/C Ratio	Volume	LOS	V/C Ratio	Volume	LOS	V/C Ratio	Volume	LOS	V/C Ratio
	Waterman Rd	Survey Rd-E. Stockton Blvd	D	2	1,820	2,200	F	<b>1.21</b>	2,400	F	<b>1.32</b>	2,200	F	<b>1.21</b>	2,400	F	<b>1.32</b>
12. Grant Line Rd	Waterman Rd	Mosher Rd	D	2	1,820	1,300	C	0.71	1,500	D	0.82	1,200	B	0.66	1,500	D	0.82
	Mosher Rd	Waterman Rd	D	2	1,820	1,500	D	0.82	1,100	B	0.60	1,500	D	0.82	1,100	B	0.60
13. Grant Line Rd	Mosher Rd	Bradshaw Rd	D	2	1,820	1,100	B	0.60	1,800	E	<b>0.99</b>	1,100	B	0.60	1,800	E	<b>0.99</b>
	Bradshaw Rd	Mosher Rd	D	2	1,820	1,700	E	<b>0.93</b>	1,200	B	0.66	1,700	E	<b>0.93</b>	1,200	B	0.66
14. Grant Line Rd	Bradshaw Rd	Elk Grove Blvd	D	2	1,820	500	A	0.27	900	A	0.49	500	A	0.27	900	A	0.49
	Elk Grove Blvd	Bradshaw Rd	D	2	1,820	900	A	0.49	500	A	0.27	900	A	0.49	500	A	0.27

Note: **Bold** indicates level of service worse than threshold level of service. **Bold and underlined** indicates a significant impact. LOS = level of service. V/C = volume-to-capacity.

<sup>1</sup> The number of lanes listed for I-5 and SR 99 freeway segments are the two-way total of mainline general-purpose lanes.

Source: compiled by Fehr & Peers 2017

Table 3.13-11 compares the MTP/SCS 2016 transportation network on Kammerer Road and Grant Line Road to the planned SouthEast Connector JPA and the City of Elk Grove General Plan.

**Table 3.13-11 Comparison of Planned Facilities for Kammerer and Grant Line Roads**

Source	Planned Network		
	Roadway	Segment	Facility
MTP/SCS 2016	Kammerer Road Grant Line Road	I-5 to Bruceville Road Bruceville Road to Lent Ranch Parkway Lent Ranch Parkway to E. Stockton Boulevard E. Stockton Boulevard to Bradshaw Road Bradshaw Road to Calvine Road	4-Lane Arterial 4-Lane Arterial 6-Lane Arterial 4-Lane Arterial 2-Lane Arterial
SouthEast Connector JPA (Interim Phase)	Kammerer Road Grant Line Road	I-5 to Bruceville Road Bruceville Road to Lent Ranch Parkway Lent Ranch Parkway to E. Stockton Boulevard E. Stockton Boulevard to Waterman Road Bradshaw Road to Calvine Road	2-Lane Expressway 2/5-Lane Arterial 6-Lane Arterial 4-Lane Arterial 2-Lane Arterial
SouthEast Connector JPA (Phase 1 Connector)	Kammerer Road Grant Line Road	I-5 to Bruceville Road Bruceville Road to Lent Ranch Parkway Lent Ranch Parkway to E. Stockton Boulevard E. Stockton Boulevard to Bradshaw Road Bradshaw Road to Calvine Road	4-Lane Expressway 4-Lane Thoroughfare 6-Lane Thoroughfare 4-Lane Thoroughfare 4-Lane Thoroughfare
SouthEast Connector JPA (Ultimate Connector)	Kammerer Road Grant Line Road	I-5 to Bruceville Road Bruceville Road to Lent Ranch Parkway Lent Ranch Parkway to E. Stockton Boulevard E. Stockton Boulevard to Bond Road Bond Road to Calvine Road	4-Lane Expressway 6-Lane Thoroughfare 6-Lane Thoroughfare 6-Lane Thoroughfare 4-Lane Thoroughfare
Elk Grove General Plan	Kammerer Road Grant Line Road	I-5 to Bruceville Road Bruceville Road to Lent Ranch Parkway Lent Ranch Parkway to E. Stockton Boulevard E. Stockton Boulevard to Bradshaw Road Bradshaw Road to Calvine Road	6-Lane Arterial 6-Lane Arterial 8-Lane Arterial 8-Lane Arterial 6-Lane Arterial

Unacceptable operations on these segments is due primarily to an imbalance between the constrained roadway network in the MTP/SCS (i.e., along this corridor) and the cumulative conditions population and employment growth levels, which includes 2036 development levels regionally and build-out of development projects considered to be reasonably foreseeable for the purposes of the CEQA analysis, that would have direct access to Kammerer Road and Grant Line Road. This would be a **significant** impact.

#### **Vehicle Miles Traveled**

The SACOG 2016 MTP/SCS identifies that the regional weekday VMT in 2012 was 57,009,900 miles (25.1 miles per capita) and would increase to 74,519,700 miles (24.2 miles per capita) by 2036 (SACOG 2016). Development under the SOIA conceptual land use plan is estimated to generate an annual VMT of 138,159,419 miles based on air quality modeling results from the California Emissions Estimator Model (CalEEMod) (see Section 3.3 "Air Quality," and Appendix B of this EIR). It should be noted that the CalEEMod estimates of VMT do not factor existing local land use conditions. This increase in VMT may be counter to SACOG 2016 MTP/SCS efforts to reduce per capita VMT as well as future thresholds to be established by the City of Elk Grove as part of its General Plan update process (City of Elk Grove 2017a). This would be a **significant** impact.

### **Mitigation Measure 3.13-1: Participation in transportation system improvements.**

At the time of any application to annex territory within the Bilby Ridge SOIA area, the City of Elk Grove shall consult with affected agencies to establish local and state highway transportation improvement plans and funding mechanisms to provide service levels consistent with the City's and County's general plans consistent with City of Elk Grove General Plan Policy CI-2. This shall include on-site transportation improvements for pedestrian, bicycle, and transit facilities that will interconnect with existing and planned City pedestrian, bicycle, and transit improvements consistent with the City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan. This will also include measures to achieve compliance with adopted VMT standards that may be established under the City of Elk Grove General Plan Update.

Future development within the SOIA area shall be responsible for constructing or contributing on a fair-share basis to roadway improvements necessary to serve development within the SOIA area. This may include participation in the I-5 Freeway Subregional Corridor Mitigation Program.

In addition, a detailed traffic study shall be completed after a more defined land use plan has been developed. Improvements needed from development in the SOIA area shall be established by subsequent traffic studies and LOS standards of affected agencies in effect at the time. Annexation and development activity within the SOIA area shall require the preparation of traffic impact report/s to establish the fair share and costing of required improvements. Evidence of compliance with this mitigation measure shall be provided in the annexation application to LAFCo.

#### **Significance after Mitigation**

To accommodate development of the project area in combination regional population and employment growth and reasonable foreseeable development, substantial roadway improvements would have to be constructed. Future development within the SOIA area would be responsible for constructing and/or funding on- and off-site roadway infrastructure including implementation of the planned improvements on the SouthEast Connector, consistent with the Ultimate Connector or planned improvements included in the City of Elk Grove General Plan. Mitigation of impacts to these roadway facilities may take the form of direct construction or payment of transportation impact fees.

The timing of improvements would be established by subsequent transportation impact analysis that is conducted for future development proposals or updates to transportation impact fee nexus studies. Improvements to these roadways would require coordination and adherence to regulatory standards of the SouthEast Connector JPA and Sacramento County.

Because the location and intensity of future development within the proposed expansion of the City's sphere of influence is not known at this time, including potential off-site infrastructure improvements, it is not possible to identify what improvements may be necessary to comply with LOS and VMT policies and standards of the relevant affected agencies. In some circumstances, improvements to facilities that could be affected by future development within the SOIA area may require coordination among multiple agencies (e.g., City of Elk Grove, Sacramento County, and Caltrans).

Potential significant environmental impacts from construction of off-site facilities could include, but would not be limited to, the following:

- ▲ Aesthetics: temporary and/or permanent alteration of public views from construction of improvements.
- ▲ Air Quality: air pollutant and toxic air contaminant emissions from construction activities that exceed thresholds recommended by the Sacramento Metropolitan Air Quality Management District.
- ▲ Archaeological, Historical, and Tribal Cultural Resources: damage or loss of significant cultural resources from construction activities.
- ▲ Biological Resources: loss of habitat and direct impacts to special status plant and animal species.

- ▲ Greenhouse Gases: temporary emission of greenhouse gases during construction.
- ▲ Hazards and Hazardous Materials: potential exposure or release of hazardous materials or contamination during construction.
- ▲ Hydrology and Water Quality: construction-related stormwater quality impacts.
- ▲ Noise: temporary excessive noise levels during construction on sensitive noise receptors.
- ▲ Transportation: temporary disruption of roadways and congestion from construction activities and equipment.

It cannot be determined at this time the extent of these impacts, and there is no additional feasible mitigation available to ensure that impacts would be avoided.

Implementation of this mitigation would reduce the impact; however, given the uncertainty of future potential land uses and participation of all agencies in the funding and development of roadway improvements, LAFCo finds that it is not now possible to define mitigation with certainty. With enforcement of the above mitigation measure, future development in the SOIA area and off-site improvements would be designed to minimize potential impacts. However, it is not possible to know at this time whether this mitigation would avoid a significant effect in every instance. Thus, this impact would be **significant and unavoidable**.

### **Impact 3.13-2: Impacts to Freeway Facilities.**

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Approval of the SOIA and future development of the SOIA area upon annexation would add traffic to segments of SR 99 and I-5 that are projected to operate unacceptably. This would be a **significant** impact.

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As documented under existing conditions, congested conditions occur on SR 99 and I-5 under existing conditions because of bottlenecks that cause vehicle queuing on SR 99 and I-5 during the morning and evening peak periods. The addition of traffic because of future development of the SOIA area upon annexation would exacerbate these conditions.

The City of Elk Grove's General Plan Policy CI-2 relates to coordination and participation with the City of Sacramento, Sacramento County, and Caltrans on roadway improvements that are shared by the jurisdictions to improve operations, including joint transportation planning efforts, roadway construction and funding. Consistent with Policy CI-2, the City should continue to work with Caltrans and other affected agencies to address operational conditions on SR 99 and I-5. This commitment to improving operation on SR 99 and I-5 in the City is also demonstrated with Policy CI-11, related to implementing improvements to I-5 and SR 99, and Policy CI-12, related to the Capital SouthEast Connector project.

Table 3.13-9 displays freeway segment operations on SR 99 and I-5 under cumulative conditions with the project and subsequent development of the project area. As shown, the addition of the project when considered with other planned and reasonable foreseeable development in the region would add traffic to the study freeway facilities that are projected to operate unacceptably at LOS F under both existing conditions (see Table 3.13-2) and cumulative conditions. This would be a **significant** impact.

### **Mitigation Measures**

Implement Mitigation Measure 3.13-1.

#### **Significance after Mitigation**

The SCMP is identified in Mitigation Measure 3.13-1. It is a voluntary development impact fee for new developments within the I-5 corridor between Elk Grove, Downtown Sacramento, and West Sacramento that is intended to be used to construct a set of transportation improvements identified in the SACOG 2016 MTP/SCS. Under the SCMP, a project applicant whose project would generate vehicle trips over the

threshold could choose to either pay the fee, which would constitute mitigation of their development project's impacts on the freeway mainline, or conduct a Traffic Impact Study, which would evaluate that project's impact on the freeway system and identify mitigation for those impacts.

According to the *Draft Final Nexus Study for the I-5 Freeway Subregional Corridor Mitigation Program* (DKS Associates, January 2016), the following roadway improvements would be partially funded by the plan (with the remainder coming from other sources):

- ▲ Construction of HOV lanes on I-5 from Elk Grove to US 50.

Page 36 of the study specifies that "Caltrans would consider the fees as an adequate mitigation for freeway mainline impacts." Table 18 on Page 32 of the Nexus Study shows the proposed fee per dwelling unit, and per thousand square feet of non-residential space.

However, even with payment of the SCMP fee and other improvements that would be identified under implementation of Mitigation Measure 3.13-1, there is no guarantee that the share of improvement funding from other development would be available and secured for the construction of identified improvements. In addition, because SR 99 and I-5 are under the jurisdiction of Caltrans, and these facilities are outside the City's jurisdiction to implement improvements, impacts to SR 99 and I-5 impacts would remain **significant and unavoidable**.

### **Impact 3.13-3: Impacts to Transit.**

Approval of the SOIA and future development of the SOIA area upon annexation would increase demand for public transit service. No transit services or facilities are currently planned for the SOIA area. This would be a **significant** impact.

Implementation of the project and subsequent development of the project area would increase demand for public transit service. No transit services or facilities are currently planned for the SOIA area. However, the City's General Plan includes policy that supports development of an integrated, multimodal circulation system to accommodate transit, including Policies CI-3, CI-4, CI-5, CI-6, and CI-7, which include actions to implement transportation alternatives to the automobile. The project and subsequent development of the project area would place development adjacent to developed areas of the City that are served by transit.

Funding for transit operations and maintenance includes two sources from the Transportation Development Act that are based in part on local sales tax revenue, with allocation based on population and transit operator revenue. Historically, Transportation Development Act funds have kept pace with inflation. In addition, because a portion of the funding is indexed to population, it is reasonable to expect that funding for expanded transit service would be available to maintain a balance of demand and capacity.

However, the SOIA includes no design provisions for the accommodation of transit services. This would be a **significant** impact.

### **Mitigation Measures**

Implement Mitigation Measure 3.13-1.

#### **Significance after Mitigation**

Mitigation Measure 3.13-1 would require future development of the SOIA area to identify transportation improvements for transit facilities (bus stops, shelters, turn-outs, and other related improvements) to accommodate the City of Elk Grove e-Tran transit services that may be extended from its current route along Bilby Road. The provision of transit facilities would ensure that City transit services can be effectively extended to the SOIA area upon annexation. Thus, transit service impacts would be mitigated to a **less-than-significant** level.

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### Impact 3.13-4: Impacts to Bicycle and Pedestrian Facilities

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Approval of the SOIA and future development of the SOIA area upon annexation would increase demand for bicycle and pedestrian facilities. This would be a **significant** impact.

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Development of the SOIA area would increase demand for bicycle and pedestrian facilities. Lying outside the City of Elk Grove, no bicycle or pedestrian facilities are currently planned for the Bilby Ridge SOIA area. There are numerous existing and proposed facilities adjacent to the project associated with the East Franklin Specific Plan, Laguna Ridge Specific Plan, and the Southeast Policy Area Community Plan (see Exhibit 3.13-6). However, it is not known how these facilities would connect and or interact with subsequent development in the Bilby Ridge SOIA. This would be a **significant** impact.

#### Mitigation Measures

Implement Mitigation Measure 3.13-1.

#### Significance after Mitigation

Implementation of Mitigation Measure 3.13-1 would require future development and the City of Elk Grove to implement the bicycle and pedestrian facilities necessary to support the increased demand in the project area and interconnect with existing City facilities consistent with the City's Bicycle, Pedestrian, and Trails Master Plan. This would ensure that bicycle and pedestrian facilities are available to future residents that would provide connection to other planned City facilities off-site. Therefore, this impact would be **less than significant** after mitigation.

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### Impact 3.13-5: Hazardous Design Features

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All roadway improvements associated with future development of the SOIA area would be constructed in accordance with applicable City, County, and Caltrans design and safety standards. Thus, the project would not increase hazards because of a design feature or incompatible uses. This would be a **less-than-significant** impact.

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Any future development within the SOIA area would be required to conform to the City of Elk Grove Improvement Standards; thus, ensuring adequate site distances, turning radii, and ingress/egress along all roadways. Additionally, Policy CI-2 of the City of Elk Grove General Plan indicates that the City shall coordinate and participate with the City of Sacramento, Sacramento County, and Caltrans on roadway improvements that are shared by the jurisdictions to improve operations. Therefore, any future roadway improvements would be constructed in accordance with City of Elk Grove, Sacramento County, and Caltrans roadway standards, as applicable. Thus, any future development within the SOIA area would not result in potential traffic related hazards. This impact would be **less than significant**.

#### Mitigation Measures

No mitigation required.

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### Impact 3.13-6: Impair Emergency Vehicle Access

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Emergency access would be subject to review by the City of Elk Grove and responsible emergency service agencies; thus, ensuring any future development with the SOIA area would be designed to meet all City of Elk Grove emergency access and design standards. Therefore, adequate emergency access would be provided. This would be a **less-than-significant** impact.

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Site-specific emergency access for any future development within the SOIA area would be evaluated upon submittal of a development application. Approval of a development application would require that the proposed development be designed to meet all City of Elk Grove design and safety standards as established by the City of Elk Grove Improvement Standards; thus, ensuring adequate emergency vehicle access. Additionally, the City of Elk Grove General Plan states that the City shall require the installation of traffic pre-

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emption devices for emergency vehicles (police and fire) at all newly constructed intersections (Policy CI-21); the City shall coordinate design and implementation with the Elk Grove Police Department and the Elk Grove CSD to ensure adequate access for police and fire vehicles (Policy CI-22); and 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 (Policy CI-23). Congestion and level of service issues related to roadway operations on response times is addressed under Impact 3.13-1 and 3.13-2. Therefore, adequate emergency access would be provided for any future development within the SOIA area. This impact would be **less than significant**.

### **Mitigation Measures**

No mitigation required.