

3.14 TRANSPORTATION

This section summarizes the assumed land use scenario for the SOIA Area, the development of traffic volume forecasts, and the analysis of transportation and traffic impacts associated with implementation of the proposed project. The following scenarios are analyzed in this section:

- ▶ **Existing Conditions** – represents the baseline condition upon which project impacts are measured. The baseline condition represents conditions in fall 2014, which, for most of the studied roadway segments were obtained from the City of Elk Grove Average Daily Traffic (ADT) Volumes (Elk Grove 2014a). The segment volumes that were not available in the City’s 2014 ADT database were obtained from a 2011 study of the possible impacts of development within the SOIA Area and surrounding areas under a previous SOIA proposal.
- ▶ **Existing Plus Project Conditions** – reflects changes in traffic and circulation conditions associated with implementation of the proposed project.

3.17.1 ENVIRONMENTAL SETTING

The SOIA Area is located south of existing City of Elk Grove boundaries (Exhibit 2-1). Roadways are the primary existing type of transportation facility within the SOIA Area. The existing roadway network consists of freeways, thoroughfares, arterials, collectors, and rural roadways. Railroads and related facilities are also present in the vicinity of the SOI Area and are generally used for movement of goods. A description of the major transportation facilities, major roadway segments, current traffic volumes, and alternative transportation modes is provided below.

STUDY AREA

The following 21 roadway and 11 freeway segments (Exhibit 3.14-1) were selected for analysis based on their proximity to the SOIA Area and the expected use of these facilities if the SOIA Area is developed in the future. The roadway and freeway segments identified below represent the study area for the transportation analysis summarized in this EIR.

Roadway Segments

1. Elk Grove Boulevard from Interstate 5 (I-5) to Harbour Point Drive
2. Elk Grove Boulevard from Harbour Point Drive to Franklin Boulevard
3. Elk Grove Boulevard from Franklin Boulevard to Bruceville Road
4. Elk Grove Boulevard from Bruceville Road to Laguna Springs Drive
5. Elk Grove Boulevard from Laguna Springs Drive to State Route 99
6. Elk Grove Boulevard from State Route 99 (SR 99) to East Stockton Boulevard
7. Elk Grove Boulevard from East Stockton Boulevard to Elk Grove Florin Road
8. Elk Grove Boulevard from Elk Grove Florin Road to Waterman Road
9. Grant Line Road from Promenade Parkway to East Stockton Boulevard
10. Grant Line Road from East Stockton Boulevard to Waterman Road
11. Grant Line Road from Waterman Road to Elk Grove Boulevard
12. Bilby Road from Franklin Boulevard to Bruceville Road

13. Kammerer Road from Bruceville Road to Promenade Parkway
14. Eschinger Road from Bruceville Road to SR 99
15. Dillard Road from SR 99 to Wilton Road
16. Lambert Road from I-5 to Bruceville Road
17. Franklin Boulevard from Elk Grove Boulevard to Whitelock Parkway
18. Bruceville Road from Elk Grove Boulevard to Whitelock Parkway
19. Bruceville Road from Whitelock Parkway to Kammerer Road
20. Bruceville Road from Kammerer Road to Eschinger Road
21. Bruceville Road from Eschinger Road to Lambert Road

Freeway Segments

1. I-5 from Twin Cities Road to Hood Franklin Road
2. I-5 from Hood Franklin Road to Elk Grove Boulevard
3. I-5 from Elk Grove Boulevard to Laguna Boulevard
4. I-5 from Laguna Boulevard to north of Laguna Boulevard
5. SR 99 from Mingo Road to Arno Road
6. SR 99 from Arno Road to Dillard Road
7. SR 99 from Dillard Road to Eschinger Road
8. SR 99 from Eschinger Road to Grant Line Road
9. SR 99 from Grant Line Road to Elk Grove Boulevard
10. SR 99 from Elk Grove Boulevard to Laguna Boulevard/Bond Road
11. SR 99 from Laguna Boulevard/Bond Road to north of Laguna Boulevard/ Bond Road

EXISTING CONDITIONS

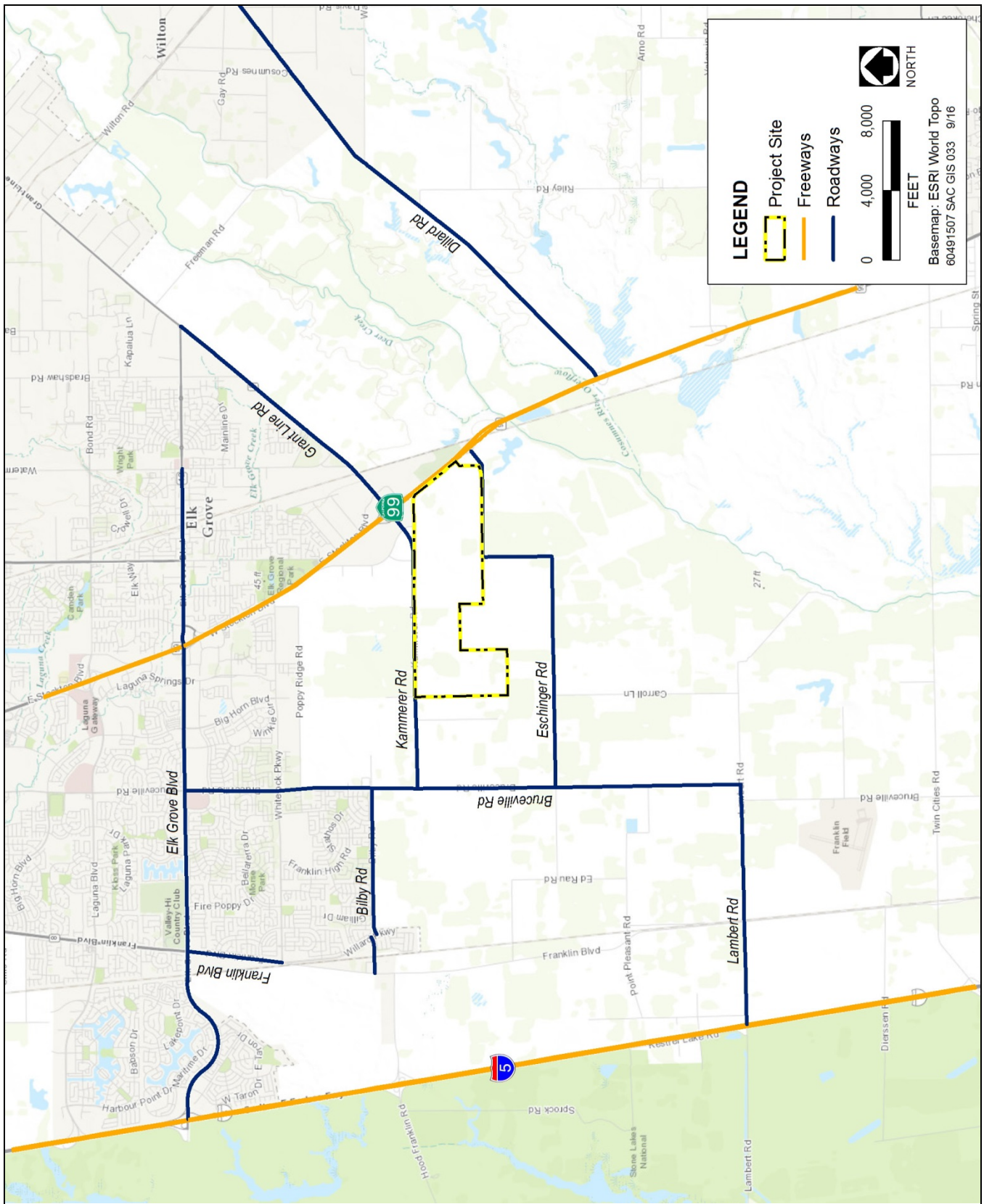
The existing physical and operating characteristics of the roadway system, transit system, and bicycle/pedestrian system are described in this section to provide a context for understanding the severity of impacts caused by the proposed project and future annexation and urbanization activities that could be experienced in the SOIA Area.

Roadway System

Implementation of the proposed project will most directly affect roadways under the jurisdiction of the County of Sacramento and the City of Elk Grove. SR 99 and I-5 will also serve the SOIA Area.

State Route 99 (SR 99)

SR 99 is a north–south freeway within the study area with interchanges at Laguna Boulevard, Elk Grove Boulevard, Grant Line Road, and Dillard Road. It consists of two lanes in each direction from south of Grant Line Road to just south of Elk Grove Boulevard, where a high occupancy vehicle (HOV) lane is added in each direction. The full-access SR 99/Grant Line Road interchange and the partial SR 99/Eschinger Road interchange (SB access only) would provide freeway access to and from the SOIA Area.



Source: AECOM 2016

Exhibit 3.14-1

Project Roadway Segments

Interstate 5 (I-5)

I-5 is a north–south freeway within the study area with interchanges at Hood-Franklin Road, Elk Grove Boulevard, and Laguna Boulevard. It consists of two lanes in each direction south of Laguna Boulevard and three lanes in each direction north of Laguna Boulevard. The full-access I-5/Hood-Franklin Road interchange would provide freeway access to the SOIA Area.

Elk Grove Boulevard

Elk Grove Boulevard is a major east–west roadway that extends from I-5 to Grant Line Road. Through the study area, Elk Grove Boulevard is generally a six-lane roadway from I-5 to SR 99 and a four-lane roadway from SR 99 to Elk Grove-Florin Road. East of Elk Grove-Florin Road, Elk Grove Boulevard narrows to two lanes.

Grant Line Road

Grant Line Road is a major north–south arterial that extends from SR 99 to White Rock Road in unincorporated Sacramento County. Grant Line Road has a Type L-9 partial cloverleaf¹ interchange at SR 99 with a six-lane overcrossing that can accommodate eight through lanes. Grant Line Road transitions to two lanes east of SR 99.

Bilby Road

Bilby Road is an east–west two-lane collector roadway that extends from Franklin Boulevard to Bruceville Road in the east.

Kammerer Road

Kammerer Road is an east–west roadway that extends from SR 99 to Bruceville Road. Kammerer Road has six lanes between SR 99 and Lent Ranch Parkway and narrows to a two-lane facility to the west.

Eschinger Road

Eschinger Road is an east–west, two-lane roadway between SR 99 and Bruceville Road. Eschinger Road is located outside the County’s Urban Services Boundary.

Dillard Road

Dillard Road is an east–west, two-lane rural roadway that extends from SR 99 in the west to Jackson Road in the east. Dillard Road is located outside the County’s Urban Services Boundary.

Lambert Road

Lambert Road is an east–west, two-lane rural roadway that extends from Bruceville Road west to River Road. Lambert Road is located outside the County’s Urban Services Boundary.

¹ The Type L-9, partial cloverleaf interchange, provides loop on-ramps in addition to the four diamond-type ramps. This interchange is suitable for large volume turning movements. Left-turn movements from the crossroads are eliminated, thereby permitting two-phase operation at the ramp intersections when signalized. Because of this feature, the Type L-9 interchange usually has capacity to handle the higher volume traffic on the crossroad. (Caltrans 2015)

Franklin Boulevard

Franklin Boulevard is a north–south roadway that extends from Twin Cities Road (south of the SOIA Area) to the city of Sacramento in the north. It 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 is a four-lane road between Whitelock Parkway and Elk Grove Boulevard.

Bruceville Road

Bruceville Road is a north–south roadway that extends from Desmond Road in southern Sacramento County north to Valley Hi Drive. From Lambert Road to Kammerer Road, Bruceville Road is a two- lane rural roadway and is outside the County’s Urban Services Boundary. In the City of Elk Grove, Bruceville Road is a two-lane arterial between Kammerer Road and Whitelock Parkway. North of Whitelock Parkway, Bruceville Road is four lanes.

Vehicle Miles Traveled (VMT)

Under Senate Bill 743 (SB 743), the focus of transportation analysis shifted from driver delay to travel demand. Measurements of transportation impacts may include vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. SB 743 directs the Governor’s Office of Planning and Research (OPR) to develop guidelines for assessing transportation-related impacts that “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses” (Public Resources Code Section 21099[b][1]). Vehicle miles traveled, or VMT, has long been a common metric to use to measure travel demand. A VMT is one vehicle traveling on a roadway for one mile. For this section and most of SACOG’s technical analysis, VMT is estimated and projected for a typical weekday, as defined in Chapter 5A of the 2036 MTP/SCS. Many communities have been estimating and developing policy related to VMT for years, including estimates and goals for VMT per person, VMT per employee, or other methods of normalization. SB 743 directs revisions to the CEQA Guidelines that would create criteria for assessing travel demand, such as “vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated” (Public Resources Code Section 21099[b][1]). Once the CEQA Guidelines are amended to include guidance for measuring travel demand, the Guidelines will recommend that delay related to congestion no longer be considered a significant impact under CEQA (OPR 2016). VMT has been a primary indicator of travel demand for decades for several reasons, including:

“First, it is relatively easy to measure by counting traffic on roadways at different locations. It is one of the few measures of transportation performance that has been consistently and comprehensively monitored and documented over time in the region... Second, VMT bears a direct relationship to vehicle emissions...Third, VMT can be influenced by policy in a number of different ways. By providing more attractive alternatives to driving alone, VMT can be reduced by shifting from vehicle to non-vehicle modes... or from low occupancy to higher occupancy... VMT can be influenced by land use patterns as well. A better mix of residential, employment, education, and service uses in an area can allow people to accomplish their daily activities with less driving, and consequently, less VMT. Fourth, VMT correlates with congestion... Finally, VMT correlates with frequency of traffic accidents” (SACOG 2016, Chapter 5b, page 76).

The Sacramento Area Council of Governments (SACOG) prepared a regional analysis of VMT and found average daily VMT for Sacramento County to be approximately 32,937,000. This travel demand is forecast to increase to

37,092,000 in 2020 and to 43,669,000 in 2036 under the Metropolitan Transportation Plan (MTP)/Sustainable Communities Strategy (SCS) (SACOG 2016).

Level of Service (LOS)

Roadway operating conditions are described using the concept of level of service (LOS). LOS is a qualitative measure of the effect of a number of factors, including speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort/convenience, and operation costs. LOS ranges from A to F, from the best to worst, which covers the entire range of traffic operations that might occur. In general, LOS A represents free-flow conditions with no congestion, LOS E describes conditions approaching or at maximum capacity, and LOS F represents severe congestion and delay under stop-and-go conditions.

For all roadways in the traffic analysis study area, a segment-based LOS was calculated by dividing the average weekday traffic volumes on a roadway segment by a planning-level daily capacity for that roadway segment to determine the volume/capacity ratio (v/c). The capacity thresholds for arterials and rural facilities are from the Sacramento County Traffic Impact Analysis Guidelines (2004). The capacity thresholds for freeways are from the City’s Traffic Impact Analysis Guidelines (2000²). These thresholds are used to identify the need for new or upgraded facilities. The daily segment-based analysis criteria used in the LOS analysis are consistent with the methodologies used in the environmental impact analyses on the General Plan Updates for Sacramento County and the City of Elk Grove, as well as by other jurisdictions in the region.

Consistent with assumptions in the City’s General Plan Background Report, study segments were analyzed using thresholds for arterial roadways with moderate access control. Table 3.14-1 shows daily volume thresholds for each LOS category for two-, four-, six-, and eight-lane roadways with moderate access control.

Facility Type	Number of Lanes	Maximum Daily Volume				
		LOS A	LOS B	LOS C	LOS D	LOS E
Arterial, Low Access Control ²	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
Arterial, Moderate Access Control ³	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
Arterial, High Access Control ⁴	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
Rural 2-Lane Road, 24 feet to 36 feet of pavement, paved shoulders	2	2,200	4,300	7,100	12,200	20,000
Rural 2-Lane Road, 24 feet to 36 feet of pavement, no shoulders	2	1,800	3,600	5,900	10,100	17,000
Freeway ⁵	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

Notes:
¹ Both number of lanes and daily volume thresholds are two-way totals.
² Low access control roads generally have frequent driveways and speeds of 25 to 35 mph.
³ Medium access control roads generally have limited driveways and speeds of 30 to 35 mph.
⁴ High access control roads generally have no driveways and speeds of 35 to 50 mph.
⁵ Freeway capacities from City of Elk Grove Traffic Impact Analysis Guidelines.
Sources: Sacramento County 2004; Elk Grove 2000; Fehr & Peers 2011

² The City of Elk Grove Traffic Impact Analysis Guidelines were adopted from Sacramento County. These guidelines use the highway capacities set forth in 1985 Highway Capacity Manual, which is more conservative than the more recent 2000 Highway Capacity Manual.

Table 3.14-2 summarizes study roadway and freeway segment operations under existing conditions, and includes the following information for each study roadway segment:

- Daily roadway capacity
- Daily traffic volume (two-way total)
- Volume-to-capacity ratio
- LOS

Roadway Segment	Daily Capacity ¹	Daily Volume ²	V/C Ratio	LOS
Elk Grove Boulevard from Interstate 5 to Harbour Point Drive	54,000	25,500	0.47	A
Elk Grove Boulevard from Harbour Point Drive to Franklin Boulevard	54,000	26,300	0.49	A
Elk Grove Boulevard from Franklin Boulevard to Bruceville Road	54,000	33,200	0.61	B
Elk Grove Boulevard from Bruceville Road to Laguna Springs Drive	54,000	43,600	0.81	D
Elk Grove Boulevard from Laguna Springs Drive to State Route 99	54,000	55,200	1.02	F
Elk Grove Boulevard from SR 99 to E Stockton Boulevard	36,000	27,000	0.75	C
Elk Grove Boulevard from East Stockton Boulevard to Elk Grove Florin Road	36,000	26,000	0.72	C
Elk Grove Boulevard from Elk Grove Florin Road to Waterman Road	18,000	17,100	0.95	E
Grant Line Road from Promenade Parkway to East Stockton Boulevard	18,000	18,100	1.01	F
Grant Line Road from East Stockton Boulevard to Waterman Road	18,000	22,400	1.24	F
Grant Line Road from Waterman Road to Elk Grove Boulevard	18,000	16,100	0.89	D
Bilby Road from Franklin Boulevard to Bruceville Road	18,000	4,771	0.27	A
Kammerer Road from Bruceville Road to Promenade Parkway	20,000	7,200	0.36	A
Eschinger Road from Bruceville Road to SR 99	18,000	1,000	0.06	A
Dillard Road from SR 99 to Wilton Road	17,000	4,676	0.28	A
Lambert Road from I-5 to Bruceville Road	17,000	898	0.05	A
Franklin Boulevard from Elk Grove Boulevard to Whitelock Parkway	36,000	19,700	0.55	A
Bruceville Road from Elk Grove Boulevard to Whitelock Parkway	36,000	22,400	0.62	B
Bruceville Road from Whitelock Parkway to Kammerer Road	18,000	3,700	0.21	A
Bruceville Road from Kammerer Road to Eschinger Road	17,000	2,100	0.12	A
Bruceville Road from Eschinger Road to Lambert Road	17,000	1,500	0.09	A
I-5 from Twin Cities Road to Hood Franklin Road	80,000	50,000	0.63	B
I-5 from Hood Franklin Road to Elk Grove Boulevard	80,000	60,000	0.75	C
I-5 from Elk Grove Boulevard to Laguna Boulevard	80,000	76,000	0.95	E
I-5 from Laguna Boulevard to north of Laguna Boulevard	120,000	91,000	0.76	C
SR 99 from Mingo Road to Arno Road	80,000	77,000	0.96	E
SR 99 from Arno Road to Dillard Road	80,000	70,000	0.88	D
SR 99 from Dillard Road to Eschinger Road	80,000	71,000	0.89	D
SR 99 from Eschinger Road to Grant Line Road	80,000	71,000	0.89	D
SR 99 from Grant Line Road to Elk Grove Boulevard	80,000	73,000	0.91	E
SR 99 from Elk Grove Boulevard to Laguna Boulevard/Bond Road	80,000	119,000	1.49	F
SR 99 from Laguna Boulevard/Bond Road to north of Laguna Boulevard/ Bond Road	80,000	152,000	1.90	F

Notes:
¹ The capacity of each roadway is based on the number of lanes and the facility type.
² The baseline condition represents conditions in fall 2014, which for most of the studied roadways segments were obtained from the City of Elk Grove Average Daily Traffic (ADT) Volumes. The segment volumes not available in the City's 2014 ADT were obtained from the 2011 study for the proposed project.
 Bold text indicates unacceptable LOS.
 Source: Fehr & Peers 2011; Elk Grove 2014a.

As shown in Table 3.14-2, most of the study roadway segments operate acceptably, except for Elk Grove Boulevard between Laguna Spring Drive and SR 99, and the segment of Grant Line Road between Promenade Parkway and Waterman Road, which operate at LOS F. Also, as shown, all of the freeway segments operate acceptably at LOS E or better, based on daily traffic volumes. However, the SR 99 segments between Elk Grove Boulevard and Laguna Boulevard/Bond Road, as well as the segment north of Laguna Boulevard/Bond Road operate at LOS F. However, this is consistent with the LOS for SR 99 from Elk Grove Boulevard to Martin Luther King Jr. Boulevard identified in the California Department of Transportation (Caltrans) Transportation Concept Report for SR 99, which identifies LOS F for this location (Caltrans 2004).

Bicycle and Pedestrian Facilities

Bicycle and pedestrian trips account for approximately 2.8 percent of all work trips and 4.9 percent of all non-work trips made by residents and employees in suburban areas. This estimate is from the Pre-Census Travel Behavior Report Analysis of the 2000 SACOG Household Travel Survey.

Elk Grove Bicycle, Pedestrian, and Trails Master Plan

The City adopted the City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan in July 2014 (Elk Grove 2014b). The Bicycle, Pedestrian, and Trails Master Plan BPMP identifies existing facilities opportunities, constraints, and destination points for bicycle users and pedestrians in Elk Grove. 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.

Since the vicinity of the SOIA Area is not developed, it does not have existing bicycle or pedestrian facilities. There are Class II bike lanes along Promenade Parkways northeast of the SOIA Area and Kammerer Road/Grant Line Road have a Class II bike lane in the vicinity of SR 99.

Transit Facilities

The City operates e-Tran, including e-Tran neighborhood shuttle service (ez-tran), limited local transit service, and commuter routes to provide transit service to its residents. 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. e-Tran provides the following services:

- ▶ Fixed-route local bus service (e-Tran) within the City;
- ▶ Commuter service to Sacramento, Galt, and Lodi;
- ▶ Connections to Sacramento Regional Transit District light rail transit stations on the SR 99 and U.S. Highway 50 corridors; and
- ▶ Park & ride facilities located throughout the community.

The closest routes to the SOIA Area operate on Bilby Road between Franklin Boulevard and Bruceville Road and on Grant Line Road between Bradshaw Road and Waterman Road. The SOIA Area is not currently served by e-tran, since it is not currently planned for development.

3.17.2 REGULATORY FRAMEWORK

STATE PLANS, POLICIES, LAWS, AND REGULATIONS

California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining State-owned roadways. Federal highway standards are implemented in California by Caltrans. Any improvements or modifications to the State highway system within the Sacramento County or the City of Elk Grove need to be approved by Caltrans.

Caltrans operates and maintains SR 99, I-5, and SR 160, which provide regional access to the City and the SOIA Area. 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 and Metropolitan Planning Organizations (MPOs, such as the Sacramento Area Council of Governments [SACOG] for the Sacramento region) for managing local and regional travel demand on State routes. Caltrans has established a Concept Level of Service for all roadways under its jurisdiction. The Concept LOS assumes a 20-year horizon and improvements to the identified facility. For planning purposes, Caltrans has established LOS D as the minimal acceptable level of service for all roadways under its jurisdiction. However, the Concept LOS for SR 99 from Elk Grove Boulevard to Martin Luther King Jr. Boulevard is LOS F (Caltrans 2004).

REGIONAL AND LOCAL PLANS, POLICIES, LAWS AND REGULATIONS

SACOG Metropolitan Transportation Plan

The Sacramento Area Council of Governments (SACOG) is responsible for the preparation of, and updates to, the Metropolitan Transportation Plan (MTP) and the corresponding Metropolitan Transportation Improvement Program (MTIP) for the six-county Sacramento region. The MTP 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, the MTP/SCS 2036, was adopted in February 2016 (SACOG 2016). SACOG is also responsible for the oversight and distribution of most federal and State transportation funding sources.

The Sacramento County Department of Transportation (DOT) Traffic Impact Guidelines

If the SOIA is approved, if annexation is proposed and approved in the future, and if development is proposed and approved in the future, this would occur under the jurisdiction of Elk Grove. However, the SOIA Area is currently

in unincorporated Sacramento County, and there would continue to be property in the unincorporated adjacent to the SOIA Area, even if there is development in the future. Therefore, County policies are presented for context.

The Sacramento County Department of Transportation (DOT) Traffic Impact Guidelines (2004) define the significance thresholds for traffic and circulation impacts in the unincorporated County.

Sacramento County General Plan

The County defines the minimum acceptable operation level for its roadways and intersections to be LOS D for rural areas and LOS E for urban areas. 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 County of Sacramento General Plan, Circulation Element (Amended in May 2014) establishes goals and policies to guide both present and future development within the County's jurisdiction. If the SOIA is approved, if annexation is proposed and approved in the future, and if development is proposed and approved in the future, this would occur under the jurisdiction of Elk Grove. However, County policies and implementation measures are presented for context.

Mobility

Policies

- ▶ **CI-1.** Provide complete streets to provide safe and efficient access to a diversity of travel modes for all urban, suburban and rural land uses within Sacramento County except within certain established neighborhoods where particular amenities (such as sidewalks) are not desired. Within rural areas of the County, a complete street may be accommodated through roadway shoulders of sufficient width or other means to accommodate all modes of travel.
- ▶ **CI-2.** Promote continued mobility for individuals whose access to automobile transportation is limited by age, illness, income, desire, or disability.
- ▶ **CI-3.** Travel modes shall be interconnected to form an integrated, coordinated and balanced multi-modal transportation system, planned and developed consistent with the land uses to be served.
- ▶ **CI-4.** Provide multiple transportation choices to link housing, recreational, employment, commercial, educational, and social services.
- ▶ **CI-5.** Land use and transportation planning and development should be cohesive, mutually supportive, and complement the objective of reducing per capita vehicle miles travelled (VMT).
- ▶ **CI-6.** Provide support for community based corridor planning processes on existing roadways with excess vehicle capacity within built communities to optimize the public right-of-way by utilizing the excess width for other modes of travel or public amenities such as bike lanes, landscaping, walkways, parking, or medians.

Implementation Measures

- A. Collaborate with transit providers and planning staff to ensure that all transit oriented development and identified commercial corridors are considered for comprehensive transit service and have full bicycle and pedestrian access.
- B. Adopt measures to ensure that all transportation facility construction provides access between modes, or multi-modal connections, so that Sacramento County residents can easily use multiple travel modes in conjunction with one another.
- C. Assess the use of developer fees and/or improvement districts to contribute to improved transit, pedestrian and bicycle facilities in commercial corridors.
- D. Promote safety education and skills training programs.

Roadways

Policies

- ▶ **CI-7.** Plan and construct transportation facilities as delineated on the Transportation Plan of the Sacramento County General Plan. Transportation facilities shall be consistent with the Sacramento County, Municipal Services Agency Improvement Standards and Construction Specifications, the Connector Project Design Guidelines, and supplemented by the California Department of Transportation (Caltrans) design standards. The County may deviate from the adopted County Improvement Standards and Construction Specifications in circumstances where conditions warrant special treatment. The Capital SouthEast Connector, as designated in the Transportation Plan map, shall be consistent with the most current JPA-approved “Capital SouthEast Connector JPA Project Design Guidelines,” provided that the Project Design Guidelines will not be applied to diminish or alter the rights of County-approved projects and provided that the design exception process within the Project Design Guidelines is not amended to diminish the County’s land use authority to approve future projects proximate to or its authority to determine access to the Capital SouthEast Connector.
- ▶ The Capital SouthEast Connector is intended to serve the transportation demand for both existing land uses and future growth within the Urban Services Boundary (USB). The County reserves all of its rights and powers to assure that sufficient access to and from the Connector roadway is available to accommodate the existing land uses as well as the future growth within the USB. For areas of the unincorporated County outside of the USB, the County will limit access to and from the Connector roadway to only accommodate the existing and future land uses permitted outside of the USB.
- ▶ **CI-8.** Maintain and rehabilitate the roadway system to maximize safety, mobility, and cost efficiency.
- ▶ **CI-9.** Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, 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.

- ▶ **CI-10.** Land development projects shall be responsible to mitigate the project’s adverse impacts to local and regional roadways.
- ▶ **CI-11.** To preserve public mobility, freeways and thoroughfares should have limited access and maintain functional characteristics that predominantly accommodate through- traffic.
- ▶ **CI-12.** To preserve public safety and local quality of life on collector and local roadways, land development projects shall incorporate appropriate treatments of the Neighborhood Traffic Management Program.
- ▶ **CI-13.** Collaborate with regional transportation planning agencies and neighboring jurisdictions to provide cross jurisdictional mobility.
- ▶ **CI-14.** Pursue all available sources of funding for the development, improvement, and maintenance of the roadway system.
- ▶ **CI-15.** Support the relinquishment of State Highways to the County when the operation of the highway supports local travel demand rather than longer interregional travel demand. Relinquished State Highways shall be developed as a complete street that accommodates all modes of travel.
- ▶ **CI-16.** The County supports creating communities that promote access and mobility for all modes of travel through the development of roadway networks based on a grid or modified grid layout.
- ▶ **CI-17.** Ensure that transportation infrastructure improvement projects initiated by the County include a comprehensive public outreach process and involves affected local stakeholders and communities in the beginning and throughout the planning and development process for the project.
- ▶ **CI-18.** The County shall plan and prioritize the implementation of intersection improvements, where feasible, in corridors identified as congested.

Implementation Measures

- A. Update the County Improvement Standards as needed to maintain consistency with adopted transportation plans and current engineering practices.
- B. Fund, design and construct capital improvement projects as adopted in the Transportation Improvement Plan.
- C. Establish roadway maintenance and rehabilitation priorities through the Pavement Management System.
- D. Assess the transportation impacts of land development projects as set forth in the Sacramento County Traffic Impact Analysis Guidelines.
- E. Fund and implement traffic calming and other traffic management improvements in accordance with the Neighborhood Traffic Management Program.
- F. Actively participate in regional forums and staff interjurisdictional committees that address regional transportation issues.

- G. The County shall establish Level of Service standards and desirable thresholds for all modes of travel including pedestrian, bicycle, and transit modes of travel.
- H. The County shall establish connectivity policies and standards that promote walkable and bikeable communities through the development of roadway networks based on a grid or modified grid layout.
- I. The County shall establish speed management policies and standards that consider appropriate operating speeds for each mode of travel that will result in a safe environment for all users.
- J. Any applicable mitigation measures contained within the JPA's "Mitigation Monitoring and Reporting Program for the Connector Project" (MMRP) incorporated herein by this reference, shall be applied to any portion of the Connector Project that the County decides to carry out, finance, or approve.

Transit

Policies

- ▶ **CI-19.** Collaborate with transit service providers to provide transit services within the County that are responsive to existing and future transit demand.
- ▶ **CI-20.** Promote transit services in appropriate commercial corridors and where population and employment densities are sufficient or could be increased to support those transit services.
- ▶ **CI-21.** Collaborate with neighboring jurisdictions and other agencies to achieve land use patterns and densities in areas planned for development that support transit services, preserve adequate rights-of-way, and enhance transit services in the designated transit corridors.
- ▶ **CI-22.** Collaborate with the Sacramento Area Council of Governments and transit service providers to pursue all available sources of funding for transit services when consistent with General Plan policies and long-term funding capabilities.
- ▶ **CI-23.** Consider the transit needs of senior, disabled, low-income, and transit-dependent persons in making recommendations regarding transit services.
- ▶ **CI-24.** Collaborate with transit service providers for the development of facilities that provide for efficient links and interconnectivity with different transportation modes, including bicyclists and pedestrians.
- ▶ **CI-25.** The County shall develop right-of-way acquisition guidelines for the implementation of transit services shown on the Transportation Plan.
- ▶ **CI-26.** Consider the expansion of Neighborhood Shuttle services in unincorporated area communities.
- ▶ **CI-27.** Public Facilities Financing Plans shall incorporate capital costs for transit. Infrastructure Master Plans shall include transit planning.
- ▶ **CI-28.** Collaborate with local transit service providers in obtaining all available sources of funding for the development, improvement, and maintenance of the transit system.

- ▶ **CI-29.** The County shall work with transit service providers to establish and implement development guidelines to maximize the ability of new development and redevelopment to support planned transit services. New development and redevelopment shall have an orientation to travel patterns that are conducive to transit service. This will include concentration of development in centers and along linear corridors such that trip origins and destinations are concentrated near transit services.
- ▶ **CI-30.** The County shall collaborate with transit service providers to promote the phased implementation of transit services to all growth areas as development occurs.
- ▶ **CI-31.** In BRT corridors that are anticipated to be congested in the future, the County shall implement all feasible measures to minimize the effects of congestion on transit travel times.

Bicycle and Pedestrian Facilities

Policies

- ▶ **CI-32.** Develop a comprehensive, safe, convenient and accessible bicycle and pedestrian system that serves and connects the County's employment, commercial, recreational, educational, social services, housing and other transportation modes.
- ▶ **CI-33.** Adopt, implement and periodically update the Sacramento County Bicycle Master Plan for unincorporated Sacramento County that sets forth the goals, policies, guidelines, programs and improvements necessary to accomplish the goals of this section.
- ▶ **CI-34.** Construct and maintain bikeways and multi-use trails to minimize conflicts between bicyclists, pedestrians, and motorists.
- ▶ **CI-35.** The applicant/developer of land development projects shall be responsible to install bicycle and pedestrian facilities in accordance with Sacramento County Improvement Standards and may be responsible to participate in the fair share funding of regional multi-use trails identified in the Sacramento County Bicycle Master Plan.
- ▶ **CI-36.** Collaborate with neighboring jurisdictions and regional agencies to coordinate planning and development of the County's bikeways, pedestrian facilities and multi-use trails with those of neighboring jurisdictions, and to support a regional bicycle and pedestrian network.
- ▶ **CI-37.** Pursue all available sources of funding for the development, improvement, and maintenance of bikeways, pedestrian facilities and multi-use trails, and to support bicycle and pedestrian safety, education, encouragement and enforcement programs.
- ▶ **CI-38.** Design and construct pedestrian facilities to ensure that such facilities are accessible to all users.

Implementation Measures

- A. Fund, design, construct and maintain bikeways and other bicycle improvement projects, and implement bicycle safety, education, encouragement and enforcement programs, in accordance with the adopted Sacramento County Bicycle Master Plan.

- B. Fund, design, construct and maintain pedestrian improvement projects in accordance with the adopted Pedestrian Master Plan.
- C. Fund, design, construct and maintain disability access improvements in accordance with the adopted Americans with Disabilities Act (ADA) Transition Plan.
- D. Design and construct roadway capital improvement projects consistent with the policies, guidelines and improvements set forth in the Sacramento County Bicycle Master Plan, Pedestrian Master Plan and ADA Transition Plan.
- E. Condition land development projects based on the policies, guidelines and improvements set forth in the Sacramento County Bicycle Master Plan, Pedestrian Master Plan and ADA Transition Plan.

Transportation Systems Management

Policies

- ▶ **CI-39.** Plan and implement intelligent transportation system (ITS) strategies within the County’s high-demand travel corridors and support efforts to deploy ITS strategies on a regional level.
- ▶ **CI-40.** Whenever possible, the applicant/developer of new and infill development projects shall be conditioned to fund, implement, operate and/or participate in TSM programs to manage travel demand associated with the project.
- ▶ **CI-41.** Consider TSM programs that increase the average occupancy of vehicles and divert automobile commute trips to transit, walking, and bicycling.
- ▶ **CI-42.** Collaborate with other agencies to develop measures to provide for more efficient traffic flow, reduce vehicular travel demand and meet air quality goals.
- ▶ **CI-43.** The County shall promote transit-supportive programs in new development, including employer-based trip-reduction programs (employer incentives to use transit or non- motorized modes), “guaranteed ride home” for commute trips, and car-share or bike- share programs.

City of Elk Grove

The City of Elk Grove General Plan Circulation Element (March 2015) establishes goals and policies to guide both present and future development within the City’s jurisdiction (City of Elk Grove 2015). The City of Elk Grove’s General Plan policies regarding transportation that may apply to potential future development in the SOIA Area are provided below.

General

- ▶ **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.

Alternative Transportation

- ▶ **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 or project area.
- ▶ **Policy CI-5.** The City shall encourage the use of transportation alternatives that reduce the use of personal motor vehicles.
 - **CI-5-Action 1.** Funding for development, operations, and maintenance of facilities for mass transit, bicycle, pedestrian modes of transportation shall be given appropriate priority in the City's budgeting process.
 - **CI-5-Action 2.** Implement policies and actions in the Conservation/Air Quality Element which seek to encourage non-vehicle transportation alternatives in Elk Grove.
 - **CI-5-Action 3.** The City will support positive incentives such as carpool and vanpool parking, bus turnouts, and pedestrian-friendly project designs to promote the use of transportation alternatives.
 - **CI-5-Action 4.** The City shall participate in the preparation and implementation of a Congestion Management Plan (CMP) consistent with legal requirements which gives priority to air quality goals, alternatives to automobile travel, and the development of demand reduction measures over additional road capacity.
 - **CI-5-Action 5.** The City shall develop and implement Pedestrian and Bikeway Master Plans to provide safe and convenient pedestrian and on- and off-street bicycle facilities throughout the City.
- ▶ **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.
 - **CI-6-Action 1.** The City shall require that RT or any other local or regional transit agency serving Elk Grove include bus service to the rural areas of Elk Grove.

- ▶ **Policy CI-7.** The City shall encourage an approach to public transit service in Elk Grove which will provide the opportunity for workers living in other areas of Sacramento County to use all forms of public transit—including bus rapid transit and light rail—to travel to jobs in Elk Grove, as well as for Elk Grove workers to use public transit to commute to jobs outside the city.

Light Rail Service

- ▶ **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 Hwy 99.
- ▶ **Policy CI-9** Light rail service in Elk Grove should be designed to serve major employment centers and the regional mall at Kammerer Road/Hwy 99. The City of Elk Grove encourages the development of light rail which will bring workers and shoppers to Elk Grove, while also serving as part of a coordinated, regional transportation network.
 - **CI-9-Action 1.** Using the City’s preferred alignment, work with Regional Transit to select a final alignment for the extension of bus rapid transit and/or light rail into Elk Grove, and to develop final station and/or park-and-ride locations along the entire transit corridor in Elk Grove. As necessary, update this Circulation Element to reflect the final alignment.
 - **CI-9-Action 2.** The City shall require irrevocable offers of dedication of rights- of-way and station sites along the City’s preferred light rail alignment. Offers of dedication shall be required as part of the approval of any tentative map or other discretionary approvals as appropriate.

Roadways

- ▶ **Policy CI-10.** The City shall implement the roadway master plan shown in Figure CI-2 of the General Plan Circulation Element. 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 roadways on which sufficient width is provided for a 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 South East 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 (generally, 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.
 - **CI-11-Action 1.** Require the reservation of right of way for projects adjacent to I-5 and Hwy 99 sufficient to accommodate the freeway facilities outlined in the most recent Caltrans Transportation Concept Report.
 - **CI-11 Action 2.** A new Whitelock Parkway interchange, may be considered by the City Council in the future. Any interchange in this general location shall be designed to minimize impacts to the Elk Grove Regional Park as well as other assets to the fullest extent possible. Consultation with CalTrans, the Cosumnes Community Services District, and other stakeholder groups shall be conducted prior to approval of any interchange design.

- ▶ **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.
 - **CI-12-Action 1.** The City will work with the Capital SouthEast Connector Joint Powers Authority (JPA) in the delivery of the planned roadway improvements pursuant to the JPA’s Project Design Guidelines provided that the Project Design Guidelines will not be applied to diminish or alter the rights of City-approved projects and provided that the Project Design Guidelines are not amended to diminish the City’s land use authority to approve future projects proximate to or its authority to determine access to the Capital SouthEast Connector.

- ▶ **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 intersections. Roadways 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 shown in this Circulation Element are completed, with the recognition that maintenance of the desired level of service may not be achievable.
 - **CI-14-Action 1.** The City shall develop criteria to determine which roadway segments and intersections will not achieve the desired level of service standard.

- ▶ **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 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.

- **CI-15-Action 1.** Update the City’s traffic analysis guidelines to implement the policies of this General Plan. Items to be addresses should include:
 - Guidelines for determining when traffic analysis is required
 - Guidelines for the preparation of traffic analysis
 - Significance criteria for use in CEQA analysis of proposed projects
 - The guidelines and significance criteria referenced above shall be reviewed by the Elk Grove Planning Commission within six months of adoption of this General Plan.
- ▶ **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.
- ▶ **Policy CI-17.** The City shall regulate truck travel as appropriate for the transport of goods, consistent with circulation, air quality, congestion management, and land use goals.
 - **CI-17-Action 1.** The City shall on an as-needed basis review existing truck routes within Elk Grove and designate routes consistent with the need to reduce traffic, noise and other impacts, and negative effects on residential areas.
- ▶ **Policy CI-18.** To the extent possible, major traffic routes for residential areas should be separate from those used by the city’s industrial areas, with the purpose of avoiding traffic conflicts and potential safety problems.
- ▶ **Policy CI-19.** The circulation system serving the city’s industrial areas should be designed to safely accommodate heavy truck traffic.
- ▶ **Policy CI-20.** The City shall discourage the creation of private roadways unless the roadways are:
 - Constructed to public roadway standards, or
 - Are used in an affordable residential development.
- ▶ **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 CSD 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.

3.17.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

METHODOLOGY

The transportation impact analysis identifies foreseeable and possible impacts to roadway, transit, and bicycle/pedestrian facilities.

Roadway System (Sacramento County)

Consistent with the County of Sacramento Traffic Impact Analysis Guidelines, a project is considered to have a significant effect if it would result in a roadway operating at an acceptable level of service to deteriorate to an unacceptable LOS. For roadways already operating at an unacceptable LOS, a project is considered to have a significant effect if it increases the volume-to-capacity ratio by more than 0.05.

The County defines the minimum acceptable operation level for its roadways to be LOS D for rural areas and LOS E for urban areas. 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.

Roadway System (City of Elk Grove)

Consistent with the City of Elk Grove Traffic Impact Analysis Guidelines, a project is considered to have a significant effect if it causes a roadway to change from LOS D or better to LOS E or F. For roadways that operate at unacceptable levels of service without the project, an impact is considered significant if the project increase the volume-to-capacity ratio by 0.05 or more.

Freeway Facilities

A Transportation Concept Report (TCR) assesses a highway's current and future operating conditions and uses and other information to establish a 20-year route concept for each segment of the route. A route concept consists of a concept LOS and a description of the concept facility. The TCR then determines the nature and extent of improvements to attain the route concept. The concept LOS applies to state highway intersections, interchange ramp terminal intersections, freeway segments, and freeway ramp junctions or weaving sections.

The Caltrans State Route 99 Transportation Corridor Concept Report (2010) and the Transportation Corridor Concept Report Interstate 5 (2010) identify the 20-year concept LOS for SR 99 and I-5 at LOS F in the study area. Caltrans District 3 generally established minimum concept LOS standards for the 20-year horizon at LOS D for rural segments and LOS E for urban segments. The project is evaluated to determine whether it would result in LOS F operations or add traffic to a freeway segment already operating at an unacceptable LOS F.

Bicycle and Pedestrian Facilities The Bicycle, Pedestrian, and Trails Master Plan (adopted in 2014) is intended to increase the mode shares for walking and bicycling for trips to work, to school, and to run errands, as well as promoting recreational walking and cycling. This plan provides direction on where facilities should be located, design standards and guidelines to describe the desired characteristics, identify funding sources, construction, and

maintenance, establish prioritization criteria regarding which projects to implement first, and to describe the City and inter-agency collaborative actions required to create the system. The Bicycle, Pedestrian, and Trails Master Plan includes an implementation program, phasing priorities, and a map showing recommended locations of bikeway, pedestrian, and trails paths.

In the vicinity of the SOIA Area, the Bicycle, Pedestrian, and Trails Master Plan identifies a future Class I multi-use trail along Kammerer Road, along with a Class II bike lane. Additional planned Class I and Class II routes are shown north of Kammerer Road in areas of the City that are planned for development.

Traffic Volume Forecasts

The SOIA application proposes to amend the City of Elk Grove's Sphere of Influence, as well other affected agencies, which are currently coterminous with the respective political boundaries, to include approximately 1,156 acres adjacent to the City's southern boundary. The project does not propose any development or land use change. However, in order to facilitate environmental analysis for this SOIA request, the applicant has developed a conceptual land use scenario. If the SOIA is approved and annexation to the City of Elk Grove is subsequently proposed, land use planning would occur under the City's jurisdiction. Rezoning of the affected territory by the City would be required prior to any application for annexation.

The applicant estimates that the SOIA Area could accommodate development that could provide 18,000 to 20,000 jobs in office, industrial, and commercial settings. Additionally, for the purposes of analysis, the applicant has identified that the SOI Area could accommodate the development of a broad array of housing types, with a total of 4,000 to 5,000 dwelling units. Trip generation estimates are derived by identifying land use types in this analytical scenario that match land use categories that are included in the Institute of Transportation Engineers Trip Generation handbook, a common reference guide used in transportation analysis. The traffic impact analysis evaluates impacts based on the assumed land use scenario discussed in Table 3.14-3 to provide an indication of possible of future traffic impacts. However, please note that approval of the proposed project itself would not result in any development activities or land use changes. As such, the use of the term "project" in the following sections should not be confused with any proposed development activity. The project is only the proposed SOIA currently before LAFCo.

Roadway Projects in the SOI Area

For purposes of developing the traffic volume forecasts, the concept land use was allocated to the SOIA Area, assuming a roadway network consistent with the MTP for 2036, adopted in 2016, including major programmed improvements in the study area, which includes the western segment of the proposed Capital South East Connector project. Kammerer Road would be widened to six lanes from SR 99 to Bruceville Road, and would be extended (four lanes) from Bruceville Road to I-5 with UPRR overcrossing.

The MTP/SCS road investments emphasize access to infill development areas, congestion relief, support for bus and rail transit, and improved bicycle and pedestrian access. Local road investments increase capacity for local passenger travel, creating a benefit to goods movement on highways. The Capitol Southeast Connector in the MTP/SCS is an expansion of existing segments of Kammerer Road, Bruceville Road, Grant Line Road, and White Rock Road.

The land use scenario used for analytical purposes only in this EIR is included in Table 3.14-3.

Land Use	Acreage*	KSF	Quantity*	ITE	Trip Rate	Trips
				Code	Daily	Daily
Multi-Family Housing (dwelling units)	--	--	1,790	220	6.65	11,880
Single-Family Detached Housing (dwelling units)	--	--	3,200	210	9.52	30,593
Commercial (1,000 square feet)	--	1,362	--	820	42.70	58,166
Office (1,000 square feet)	--	6,091	--	710	11.03	67,180
Industrial (1,000 square feet)	--	2,338	--	110	6.97	16,295
School (students)	--	--	2,696	520	1.29	3,477
Parks/Open Space, Trails.	110	--	--	411	1.89	204
Gross Trips						187,796
*Totals do not add due to rounding. Source: AECOM 2016						

SOI Amendment Area Trip Generation and Trip Distribution

If the SOIA Area were developed based on the land use scenario, this would generate about 187,796 vehicle trips per day. Of these trips, some portion would stay within the SOIA Area, while others would leave or would originate from outside the SOIA Area. Trip internalization is unknown at this time. Therefore, a conservative assumption was made that all trips would be external to the SOIA Area. The degree of internalization would depend on the mix of land uses, transportation facilities planning, and various other factors that are unknown. Trip distribution is summarized in Table 3.14-4 and is based on a previous EIR that included the SOIA Area and other adjacent lands in a previous SOIA request.

North	South	East	West
75%	17%	7%	1%
Source: Fehr & Peers 2011			

Traffic Forecasts

Existing traffic volumes were obtained from the City of Elk Grove (Elk Grove 2014a). Project traffic volumes were calculated based on the assumptions in Tables 3.14-3 and 3.14-4. Project traffic volumes were also adjusted to account for the volume increases and decreases from the South East Connector to the SOIA Area roadways, including Kemmerer Road, I-5 and SR 99.

Travel Demand

Using the land use scenario developed for the purpose of analysis in this EIR, possible future development in the SOIA Area could generate a total daily VMT of 910,037. The annual VMT for potential residential development included in the land use scenario for the SOIA Area is 108,821,820. Daily VMT for the residential uses is estimated to be approximately 298,142, which is approximately 22.3 VMT per day per capita.

The Sacramento Area Council of Governments (SACOG) prepared a regional analysis of VMT. The regional VMT per capita in 2008 was estimated to be 26.2, decreasing by 2012 to 25.1 miles per day (SACOG 2016, Chapter 5B, page 79). Although regional VMT is anticipated to increase throughout the region, the VMT per capita is forecast to decline slightly during the planning horizon for the MTP/SCS (through 2036). Per-capita

VMT in 2036 is estimated to be 24.2 per day, which is an 8-percent decrease from 2008 per-capita levels (SACOG 2016, Chapter 5B, page 79). On a per-capita basis, weekday household VMT was estimated by SACOG to be 17.9 in 2012, decreasing by 5 percent to 17 in 2036. If the SOIA Area were to be developed in accordance with land use scenario, household-generated daily VMT would be approximately 22.3 per capita, which is 31 percent higher than the regional estimate for 2036. However, this estimate is based on default assumptions from an air pollutant emissions model based on a land use scenario for the overall SOIA Area.

If there is annexation and development in the future, the actual travel demand will depend on the density and development intensity of development, mixing of land uses, the relationship between land uses in the SOIA Area and adjacent areas, the level of pedestrian, bicycle, and transit infrastructure, parking standards, the relative affordability of housing, and other factors that are not currently known. In 2036, SACOG estimates that in 2036, 45 percent of all household-generated VMT will be associated with commuting. If development of the SOIA Area were to generate job opportunities for Elk Grove residents that are currently commuting, this could potentially shorten potential commute trips. Whether future SOIA Area residents would commute to jobs outside the city or county is unknown, but residents would likely be influenced by commute times, the price of fuel, and other social and economic factors. VMT can be an indicator of potential adverse physical environmental effects. Please refer also to Section 3.3 of this EIR, "Air Quality," which comprehensively analyzes and provides feasible mitigation for air pollutant emissions; Section 3.8, "Greenhouse Gas Emissions," comprehensively analyzes and provides feasible mitigation for GHG emissions; and Section 3.12, "Noise and Vibration," which comprehensively analyzes and provides feasible mitigation for noise and vibration impacts. Please also see the discussion of transportation energy use in Section 3.6 of this EIR, "Energy."

THRESHOLDS OF SIGNIFICANCE

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, transportation impacts resulting from the implementation of the proposed project would be considered significant if the project would:

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

ISSUES NOT DISCUSSED FURTHER

- ▶ **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:** Implementation of the proposed project would not be expected to 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 during construction or operational phases. The SOI Area is not located in the vicinity of an airport and/or a private airstrip, and would therefore not be adversely affected by aircraft operations from such a facility.

IMPACT ANALYSIS

IMPACT 3.14-1 Conflict with an applicable transportation plan, ordinance, policy, or congestion management program. *Future annexation and development activities within the proposed project may generate new vehicle trips that may contribute to unacceptable traffic operations under existing plus project conditions. This would conflict with an applicable transportation plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. This would also conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. This impact is considered significant.*

Existing plus Project Traffic

Table 3.14-5 shows the Average Daily Traffic Volumes for the Existing Plus Project Conditions. The traffic volume forecasts shown on Table 3.14-5 were analyzed using the analysis methodology presented earlier, which included the use of the assumed land use scenario identified in Table 3.14-3.

Roadway and Freeway Segment Operations

As shown in Table 3.14-5 above, if the SOIA Area is developed, this would likely have indirect impacts related to traffic congestion on seven roadway segments and seven freeway segments. The proposed project is likely to have indirect impacts on roadways in the County of Sacramento and City of Elk Grove under existing plus project conditions. The increase in traffic volume would cause deterioration in the daily LOS, resulting in a significant impact for the following existing roadways:

- Elk Grove Boulevard from Bruceville Road to Laguna Springs Drive
- Elk Grove Boulevard from Laguna Springs Drive to State Route 99
- Elk Grove Boulevard from Elk Grove Florin Road to Waterman Road
- Grant Line Road from Promenade Parkway to E Stockton Boulevard
- Grant Line Road from E Stockton Boulevard to Waterman Road
- Grant Line Road from Waterman Road to Elk Grove Boulevard
- Kammerer Road from Bruceville Road to Promenade Pkwy
- Eschinger Road from Bruceville Road to State Route 99
- Bruceville Road from Whitelock Parkway to Kammerer Road
- Bruceville Road from Kammerer Road to Eschinger Road

Table 3.14-5. Roadway Segment Level of Service – Existing Plus Project Conditions

Roadway Segment	Daily Capacity ¹	Daily Volume ²	V/C Ratio	LOS
Elk Grove Boulevard from I-5 to Harbour Point Drive	54,000	27,223	0.50	A
Elk Grove Boulevard from Harbour Point Drive to Franklin Boulevard	54,000	28,023	0.52	A
Elk Grove Boulevard from Franklin Boulevard to Bruceville Road	54,000	35,612	0.66	B
Elk Grove Boulevard from Bruceville Road to Laguna Springs Drive	54,000	54,172	1.00	F
Elk Grove Boulevard from Laguna Springs Drive to SR 99	54,000	65,772	1.22	F
Elk Grove Boulevard from SR 99 to East Stockton Boulevard	36,000	32,169	0.89	D
Elk Grove Boulevard from East Stockton Boulevard to Elk Grove Florin Road	36,000	31,169	0.87	D
Elk Grove Boulevard from Elk Grove Florin Road to Waterman Road	18,000	21,235	1.18	F
Grant Line Road from Promenade Pkwy to East Stockton Boulevard	18,000	27,162	1.51	F
Grant Line Road from E Stockton Boulevard to Waterman Road	18,000	31,462	1.75	F
Grant Line Road from Waterman Road to Elk Grove Boulevard	18,000	25,162	1.40	F
Bilby Road from Franklin Boulevard to Bruceville Road	18,000	9,189	0.51	A
Kammerer Road from Bruceville Road to Promenade Pkwy	20,000	20,294	1.01	F
Eschinger Road from Bruceville Road to SR 99	18,000	25,379	1.41	F
Dillard Road from SR 99 to Wilton Road	17,000	6,161	0.36	A
Lambert Road from I-5 to Bruceville Road	17,000	4,259	0.25	A
Franklin Boulevard from Elk Grove Boulevard to Whitelock Parkway	36,000	29,434	0.82	D
Bruceville Road from Elk Grove Boulevard to Whitelock Parkway	36,000	24,812	0.69	B
Bruceville Road from Whitelock Parkway to Kammerer Road	18,000	19,981	1.11	F
Bruceville Road from Kammerer Road to Eschinger Road	17,000	25,531	1.50	F
Bruceville Road from Eschinger Road to Lambert Road	17,000	4,860	0.29	A
I-5 from Twin Cities Road to Hood Franklin Road	80,000	50,050	0.63	B
I-5 from Hood Franklin Road to Elk Grove Boulevard	80,000	69,735	0.87	D
I-5 from Elk Grove Boulevard to Laguna Boulevard	80,000	83,819	1.05	F
I-5 from Laguna Boulevard to north of Laguna Boulevard	120,000	95,341	0.79	C
SR 99 from Mingo Road to Arno Road	80,000	78,663	0.98	E
State Route 99 from Arno Road to Dillard Road	80,000	71,663	0.90	D
State Route 99 from Dillard Road to Eschinger Road	80,000	72,663	0.91	E
State Route 99 from Eschinger Road to Grant Line Road	80,000	75,376	0.94	E
State Route 99 from Grant Line Road to Elk Grove Boulevard	80,000	94,885	1.19	F
State Route 99 from Elk Grove Boulevard to Laguna Boulevard/Bond Road	80,000	140,885	1.76	F
State Route 99 from Laguna Boulevard/Bond Road to north of Laguna Boulevard/ Bond Road	80,000	173,885	2.17	F

Notes:

¹ The capacity of each roadway is based on the number of lanes and the facility type.

² The baseline condition represents conditions in fall 2014, which for most of the studied roadways segments were obtained from the City of Elk Grove Average Daily Traffic (ADT) Volumes. The segment volumes not available in the City's 2014 ADT were obtained from the 2011 study for the proposed project.

Bold text indicates unacceptable LOS.

Source: Fehr & Peers 2011; Elk Grove 2014a.

Also, the proposed project is likely to have indirect impacts on I-5 and SR 99 under existing plus project conditions. As shown in Table 3.14-5, the increase in traffic volume would cause deterioration in daily level of service from LOS E to LOS F or an increase of more than 0.05 in volume over capacity ratios on the following segments of SR 99 and Interstate 5:

- I-5 from Elk Grove Boulevard to Laguna Boulevard
- SR 99 from Mingo Road to Arno Road

- SR 99 from Dillard Road to Eschinger Road
- SR 99 from Eschinger Road to Grant Line Road
- SR 99 from Grant Line Road to Elk Grove Boulevard
- SR 99 from Elk Grove Boulevard to Laguna Boulevard/Bond Road
- SR 99 from Laguna Boulevard/Bond Road to north of Laguna Boulevard/ Bond Road

As referenced previously, the methodology used throughout this EIR is conservative, which means it would tend to overestimate impacts of the proposed SOIA. One example relates to trip internalization. Not all trips would leave the SOIA Area. The degree of internalization would depend on the mix of land uses, transportation facilities planning, and various other factors that are unknown. A conservative assumption was made that all trips would leave the SOIA Area.

Congestion Management Plan (CMP) also requires establishment of LOS standards to measure congestion at specific monitoring locations on the freeway and arterial systems. Policy CI-5-Action 4 indicates that the City shall participate in the preparation and implementation of a CMP consistent with legal requirements which gives priority to air quality goals, alternatives to automobile travel, and the development of demand reduction measures over additional road capacity. Policy CI-17 requires the City to regulate truck travel as appropriate for the transport of goods, consistent with circulation, air quality, congestion management, and land use goals.

Also, the MTP/SCS road investments emphasize access to infill development areas, congestion relief, support for bus and rail transit, and improved bicycle and pedestrian access. Local road investments increase capacity for local passenger travel, creating a benefit to goods movement on highways. The Capitol Southeast Connector in the MTP/SCS is an expansion of existing segments of Kammerer Road, Bruceville Road, Grant Line Road and White Rock Road in the SOI Area.

However, the above impacts would occur because over 187,500 vehicle trips per day would be added to the existing roadway network without adding new roadways or assuming that existing roadways would be widened. Adequate roadways have not yet been identified to support the conceptual land use changes that could potentially result from the proposed project. Under these circumstances, many of the study roadways would operate at levels worse than the stated significance criteria, resulting in a **significant** impact.

Mitigation Measures

Mitigation Measure 3.14-1a: Impacted Roadway and Freeway Segments Improvement

At the time of submittal of any application to annex territory within the SOIA Area, the City of Elk Grove shall consult with Sacramento County and Caltrans to establish transportation improvement plans and funding mechanisms to provide service levels consistent with the City's and County's General Plans.

Future development within the SOIA Area will be responsible for constructing or contributing on a fair-share basis to roadway improvements necessary to serve development within the SOIA Area.

In addition, a detailed traffic study will be completed after a more defined land use plan has been developed. Improvements needed as a result of development in the SOIA Area will be established by subsequent traffic studies and LOS standards of affected agencies. Annexation and development activity

within the SOIA Area will require the preparation of traffic impact report/s to establish the fair share and costing of required improvements.

Mitigation Measure 3.14-1b: Implement Mitigation Measure 3.3-2a

Mitigation Measure 3.14-1c: Implement Mitigation Measure 3.3-2b

Mitigation Measure 3.14-1d: Implement Mitigation Measure 3.8-1

Significance after Mitigation

The project could indirectly result in future urbanization of the SOIA Area and could contribute to unacceptable roadway and freeway operations under existing plus project conditions. Necessary improvements to improve operations to acceptable levels are discussed above. However, the actual improvements needed in the future would depend on the location, type, and level of intensity of future growth in the SOIA Area and, at that time, appropriate mitigation would be designed. The mitigation would require the preparation of traffic studies for future projects and consultation with appropriate agencies. However, because the location and intensity of future development 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 policies of the relevant affected agencies. In certain instances, 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). Also, the methodology used throughout this EIR is conservative, which means it would tend to overestimate impacts of the proposed SOIA. One example relates to trip internalization. Not all trips would leave the SOIA Area. The degree of internalization would depend on the mix of land uses, transportation facilities planning, and various other factors that are unknown. It is possible the SOIA Area could include land uses that complement other land uses in Elk Grove or that would be in Elk Grove in the future, thus shortening trips or facilitating additional bicycle, pedestrian, or transit mobility. However, for this EIR, a conservative assumption was made that all trips would leave the SOIA Area.

Implementation of this mitigation would reduce the impact; however, given the uncertainty of future potential land uses, 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. There is no additional feasible mitigation. Thus, the impact would be **significant and unavoidable**.

IMPACT 3.14-2 Hazards due to a design feature. *The project would not increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). This impact is less than significant.*

This impact is related to site-specific design features and potential incompatible uses. Potential hazardous design features that may occur to provide access to future development include sharp curves, dangerous intersections, or shared turn lanes. However, Policy CI-2 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 in order to improve operations. This may include joint transportation planning efforts, roadway construction and funding. Therefore, any future roadway improvements required within the Elk Grove city limits or SOIA Area

would be constructed to American Association of State Highway and Transportation Officials (AASHTO), Caltrans, Sacramento County, and City of Elk Grove roadway standards, as applicable, and would therefore not result in potential traffic related hazards. Therefore, impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

IMPACT **Inadequate emergency access. Future development would not result in inadequate emergency access.**
3.14-3 *This impact is less than significant.*

This impact is related to site-specific design features and emergency access. Emergency access impacts would be evaluated at a project-specific level by the City at the time of future development application submittal. Existing Policy CI-21 indicates that 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. Also, existing Policy CI-23 indicates that 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. In addition, compliance with City of Elk Grove General Plan Policy CI-2, which indicates that the City will 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, would assure that continuous and adequate emergency access would occur throughout the SOIA Area. Therefore, impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

IMPACT **Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Future annexation and development activities within the SOIA Area may conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Therefore, this impact is considered potentially significant.**
3.14-4

Bicycles and Pedestrian

The proposed SOIA would not construct or develop any structures or infrastructure (including roadways) that could potentially result in the decreased performance or safety of public transit, bicycle, or pedestrian facilities. However, future annexation and development activities within the proposed SOIA Area may substantially increase demand for bicycle and pedestrian facilities. If there is future annexation and development of the SOIA Area, this will require planning to ensure access and mobility for transit users, bicyclists, and pedestrians.

Policy CI-5 (CI-5-Action 5) of the Elk Grove General Plan states that the City will develop and implement Pedestrian and Bikeway Master Plans to provide safe and convenient pedestrian and on- and off-street bicycle facilities throughout the City. The City's current Bicycle and Pedestrian Master Plan includes proposed facilities on Kammerer Road, Grant Line Road, and potential extension on Bruceville Road into the SOIA Area and along the planned alignment of the Kammerer Road extension to Franklin Road. The City has not planned for

comprehensive bicycle and pedestrian facilities in the SOIA Area, as the area is not within the City's jurisdiction. However, if there is annexation and development proposed to the City in the future, such development would require consistency findings with the City's General Plan, including policies addressing transit, bicycle, and pedestrian access and mobility. As this planning has not occurred, there is the potential for conflicts with policies that may be relevant in the future and the impact is conservatively assumed to be **potentially significant**.

Public Transit

The proposed project would not construct or develop any structures or infrastructure (including roadways) that could potentially result in the decreased performance or safety of public transit, bicycle, or pedestrian facilities. However, future annexation and development activities within the proposed SOIA Area may substantially increase demand for public transit service.

Policy CI-5 of the Elk Grove General Plan states that the City will require transit service to be 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-7 states that the City will encourage an approach to public transit service in Elk Grove that will provide the opportunity for workers living in other areas of Sacramento County to use all forms of public transit, including bus rapid transit and light rail, to travel to jobs in Elk Grove, as well as for Elk Grove workers to use public transit to commute to jobs outside the City. As this planning has not occurred, there is the potential for conflicts with policies that may be relevant in the future and the impact is conservatively assumed to be **potentially significant**.

Mitigation Measures

Mitigation Measure 3.14-4: Implement Mitigation Measure 3.3-2b

Significance after Mitigation

Implementation of the above mitigation measure would ensure that future pedestrian, bicycle, and transit needs are properly planned and designed to support potential developments. With enforcement of the above mitigation measure, future development in the SOIA Area and off-site improvements would be designed to minimize potential impacts. The impact is **less than significant with mitigation**.

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