4.8 TRANSPORTATION AND TRAFFIC

4.8.1 INTRODUCTION

This section describes the existing transportation setting and analyzes the potential impacts of the proposed El Dorado Hills Apartments project ("proposed project") on transportation and traffic under CEQA as well as El Dorado County Initiative Measure E. The analysis focuses on potential impacts of the proposed project on intersections and roadway segments, pedestrian and bicycle facilities, and transit service. Regulations and policies applicable to traffic and transportation are also described in this section. The section is based on a *Transportation Impact Analysis* prepared by Fehr & Peers, dated June 2017. The report is included in **Appendix 4.8** of this Draft EIR.

4.8.2 ENVIRONMENTAL SETTING

This subsection describes the existing condition of the transportation system that serves the project site, including roadway facilities, pedestrian and bicycle facilities, transit service, traffic volumes, and intersection operations.

4.8.2.1 Existing Transportation Network

Regional and Local Roadways

The location of the project site and the surrounding roadway network are shown in **Figure 4.8-1, Project Location and Study Area.** Regional access to the project site is provided via U.S. Route 50 (U.S. 50), El Dorado Hills Boulevard/Latrobe Road, and Silva Valley Parkway/White Rock Road. Local access to the project site is provided by Town Center Boulevard, Post Street, and Vine Street. The characteristics of the roadway system near the project site are described below.

U.S. 50 is an east-west freeway located south of the project site. Generally, U.S. 50 serves the majority of El Dorado County's major population centers and provides regional connections to the west (i.e., Sacramento) and to the east (i.e., State of Nevada). Primary access to the project site from U.S. 50 is provided via the U.S. 50/El Dorado Hills Boulevard/Latrobe Road and U.S. 50/Silva Valley Parkway/White Rock Road interchanges. Near the project site, westbound U.S. 50 has a high-occupancy vehicle (HOV) lane and two general purpose travel lanes, and eastbound U.S. 50 has an HOV lane and three general purpose travel lanes. The General Plan identifies U.S. 50 as an eight lane freeway under future conditions.

SOURCE: Fehr and Peers, 2017

FIGURE **4.8-1**

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Project Location and Study Area

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Construction of Phase 1 of the new U.S. 50/Silva Valley Parkway/White Rock Road interchange was completed in 2016. Phase 1 constructed a new connection to U.S. 50 with new signalized slip on- and off ramps westbound and a slip off-ramp and loop on-ramp eastbound. The mainline has an overcrossing for Silva Valley Parkway and was improved to include eastbound and westbound auxiliary lanes between the U.S. 50/El Dorado Hills Boulevard/Latrobe Road interchange and the new U.S. 50/Silva Valley interchange. Phase 2 will construct a westbound loop on-ramp and eastbound slip on-ramp (CIP Project No: 71345). The westbound loop on-ramp will begin the addition of an auxiliary lane that will continue westbound through the El Dorado Hills Boulevard interchange and terminate at the planned U.S. 50/Empire Ranch interchange (CIP Project No: 53115).

The planned reconstruction of the U.S. 50/Bass Lake Road interchange (CIP Project No: 71330 and GP148) will add a westbound auxiliary lane between the Bass Lake Road and Silva Valley Parkway interchanges.

El Dorado Hills Boulevard is a north-south roadway that continues as Salmon Falls Road on the north end at Green Valley Road, and Latrobe Road to the south of U.S. 50. The roadway is four lanes with a center median between Park Drive and Governor Drive. Between U.S. 50 and Park Drive, the roadway section widens to six lanes to accommodate vehicle demand near the U.S. 50/El Dorado Hills Boulevard/Latrobe Road interchange. The County's General Plan identifies El Dorado Hills Boulevard as a four lane divided road except near U.S. 50 where the designation changes to a six lane divided road.

Latrobe Road is a north-south roadway and is the continuation of El Dorado Hills Boulevard south of U.S. 50. Latrobe Road is six lanes near the U.S. 50 interchange, narrows to four lanes south of White Rock Road, and eventually narrows to two lanes as it continues south to connect with State Route 16 in Amador County. The General Plan identifies Latrobe Road as a six lane divided roadway near the U.S. 50 interchange transitioning to a four lane divided road, then a two lane major road, and eventually a two lane regional road serving the southwest portion of the County.

Park Drive is a two lane local roadway serving the Raley's shopping center located in the northeast quadrant of the U.S. 50/El Dorado Hills Boulevard interchange. Park Drive intersects El Dorado Hills Boulevard at two locations, opposite the new U.S. 50 westbound loop off-ramp, and Saratoga Way.

Post Street is a two-lane private roadway in the Town Center. Post Street intersects Town Center Boulevard (also a private roadway) at an all-way stop-controlled intersection about 400 feet east of Latrobe Road. The project will have an access point on Post Street.

Saratoga Way is currently two lanes and extends west of El Dorado Hills Boulevard to Finders Way. Saratoga Way is planned as a four-lane divided arterial that will connect to Iron Point Road in the City of Folsom.

Silva Valley Parkway is a north-south roadway that generally runs parallel to El Dorado Hills Boulevard north of U.S. 50. Silva Valley Parkway ranges from two lanes to four lanes with a center median within the study area. The General Plan identifies Silva Valley Parkway as a four lane divided road from U.S. 50 to Harvard Way, and as a major two-lane road from Harvard Way to Green Valley Road. A new U.S. 50 interchange at Silva Valley/White Rock Road was recently completed and is included in the existing and cumulative conditions transportation analysis. The interchange project provided a realigned Silva Valley Parkway that connects to the old four-lane Silva Valley Parkway to the north and the existing two-lane White Rock Road on the south. A new signalized intersection was installed where the new Silva Valley Parkway intersects old White Rock Road on the south.

Town Center Boulevard is a private east-west roadway that serves as a primary access for the Town Center. Town Center Boulevard is four lanes between Latrobe Road and Post Street and two lanes between Post Street and Vine Street with angled parking. Town Center Boulevard has a traffic signal controlled intersection with Latrobe Road and all-way stop control at the Post Street and Vine Street intersections.

Vine Street is a two-lane private roadway in the Town Center. Vine Street intersects Town Center Boulevard at an all-way stop-controlled intersection. The project will have an access point on Vine Street.

White Rock Road enters into El Dorado County from Sacramento County, crosses Latrobe Road approximately 0.45 mile south of U.S. 50, and continues east connecting to Silva Valley Parkway south of U.S. 50. White Rock Road is a two-lane roadway from Sacramento County to Manchester Drive, widening to a four-lane divided roadway from Manchester Drive to Monte Verde Drive. It continues east as a three-lane roadway to the Vine Street/Valley View Parkway intersection, narrowing back to two lanes until its connection to Silva Valley Parkway. . The General Plan identifies White Rock Road as a four-lane divided road. White Rock Road is identified as a portion of the Capital SouthEast Connector Expressway, a regional transportation improvement project being pursued by a Joint Powers Authority (JPA) including El Dorado County, Sacramento County, and the Cities of Elk Grove, and Folsom. The U.S. 50/Silva Valley Parkway/White Rock Road interchange modified the roadway alignment and introduced a new signalized intersection at the intersection of White Rock Road/Old Silva Valley Parkway/New Silva Valley Parkway.

Public Transit

El Dorado County Transit Authority (El Dorado Transit) provides public transit service within the study area. El Dorado Hills is currently served by El Dorado Transit Dial-A-Ride services, the Sacramento Commuter Service, and the 50 Express service. Both the Sacramento Commuter Service and the 50

Express serve the El Dorado Hills Park-and-Ride Lot, but do not circulate within the community. The Sacramento Commuter route also serves the Vine Street and Mercedes Lane Park-and-Ride lot.

In May 2013, The EDCTC completed the *El Dorado Hills Community Transit Needs Assessment and U.S. 50 Corridor Operations Plan* (Plan), which explores how the recent growth and projected development impact the need for transit services, and identifies the most appropriate type and level of service needed given the demand. All three services are addressed in the Plan and are described briefly below.

- **Dial-A-Ride** service is a demand response service designed for seniors and disabled passengers, with limited access available for the general public. The service is available on a first-come, first- serve basis Monday through Friday between the hours of 7:30 AM and 5:00 PM, and between 8:00 AM and 5:00 PM on Saturdays and Sundays. El Dorado Hills is one of twelve geographic zone service areas.

- **Sacramento Commuter Service** is offered Monday through Friday between El Dorado County and downtown Sacramento. The Sacramento Commuter provides 11 trips in the morning, 11 return trips in the afternoon, and two reverse commuter trips twice per day. Morning departures from the Town Center Park-and-Ride lots are scheduled from 5:43 AM to 8:30 AM, and afternoon eastbound arrivals occur from 3:46 PM to 7:03 PM. The Vine Street and Mercedes Lane Park-and-Ride lot, located in Town Center is the nearest stop location for the project. According to the Plan, nearly half of commute passengers boarded in Town Center at the Town Center Park-and-Ride lots. The Sacramento Commuter Service has about 138,000 annual boardings, based on the El Dorado Transit Fiscal Year 2015/2016 Administrative Operations Report (November 3, 2016).

- **50 Express** provides direct service from El Dorado County to Folsom with connections to Sacramento Regional Transit light rail on weekdays. This route operates every hour from 6:00 AM until 7:00 PM. The El Dorado Hills Park-and-Ride located in Town Center at the White Rock Road/Post Street intersection is the nearest stop location for the project. The 50 Express has about 32,000 annual boardings, based on the El Dorado Transit Fiscal Year 2015/2016 Administrative Operations Report (November 3, 2016).

The El Dorado Hills Park-and-Ride Lot provides 120 parking spaces. The Plan reports that parking demand exceeds supply. Specifically, Table 19 of the Plan reports 108 percent parking utilization in 2005 based on Sacramento Area Council of Governments and Caltrans data.

Bicycle Facilities

Existing and planned bicycle facilities within the study area are shown in **Figure 4.8-2, Existing and Planned Bicycle Facilities**. Bicycle facilities are classified into four categories:

- Class I Bicycle Path – Off-street bike paths within exclusive right-of-way; usually shared with pedestrians
- Class II Bicycle Lane – Striped on-road bike lanes adjacent to the outside travel lane on preferred corridors for biking
- Class III Bicycle Route – Shared on-road facility, usually delineated by signage and pavement markings
- Class IV Bikeways – Separated bikeways or cycle tracks on an already built out environment.

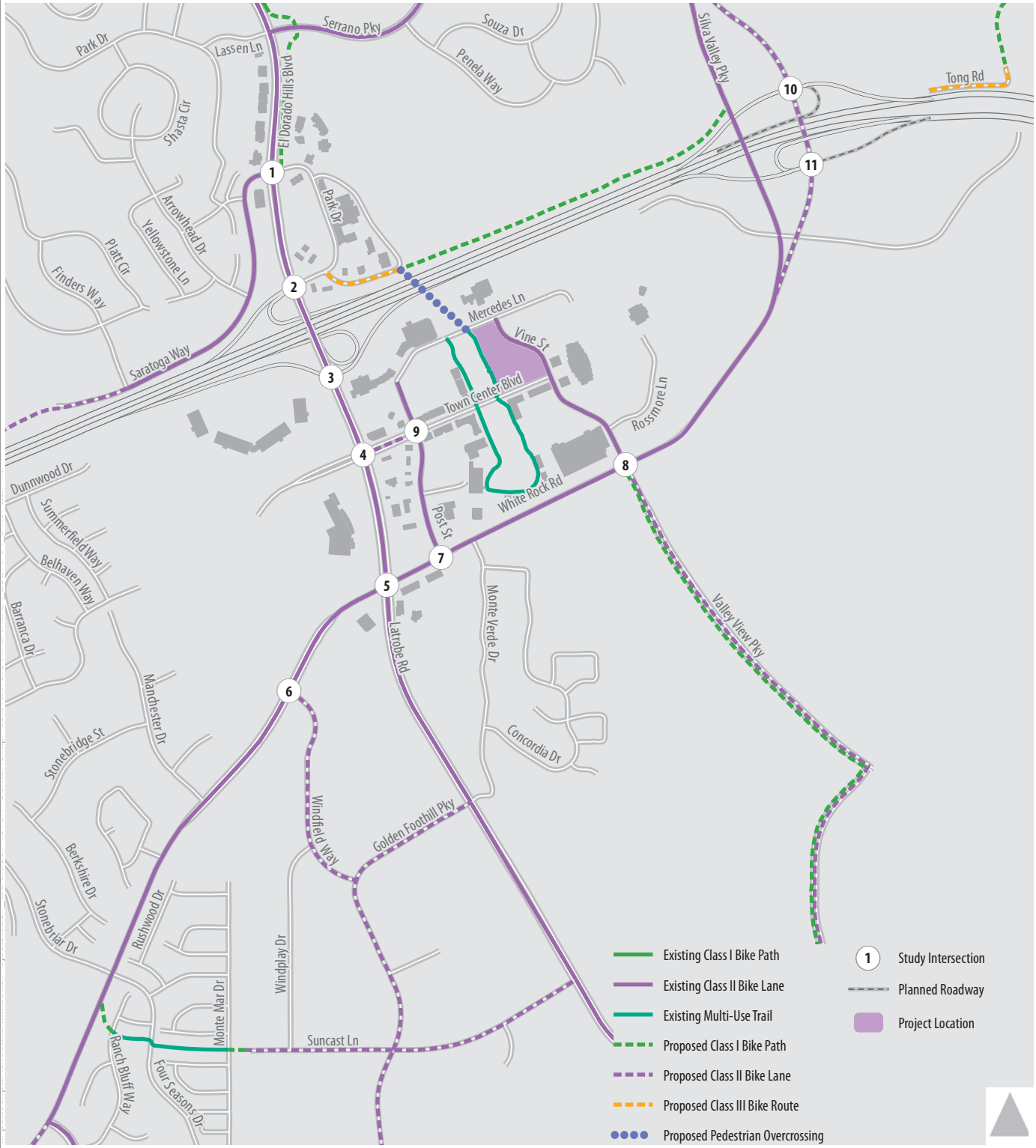
According to the *El Dorado Bicycle Transportation Plan, 2010 Update (El Dorado County Transportation Commission)*, mapping information provided by the County, and field observations, the following major bikeway facilities are present within the study area:

- Class II bicycle lanes on Latrobe Road, White Rock Road, El Dorado Hills Boulevard, and portions of Silva Valley Parkway
- Class I bicycle path, New York Creek Nature Trail, which is adjacent to El Dorado Hills Boulevard on the east side between Serrano Parkway and St Andrews Drive

Figure 4.8-2 also identifies planned bikeways presented in the *El Dorado Bicycle Transportation Plan, 2010 Update* and the *Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for 2035.*

Pedestrian Facilities

Pedestrian facilities in Town Center include attached sidewalks on Town Center Boulevard, Post Street, Vine Street, and Mercedes Lane, and an off-street path around the Town Center Lake. Sidewalks on Town Center Boulevard connect to Latrobe Road, which has sidewalks north of Town Center Boulevard on the east side of Latrobe Road. Continuous sidewalks are not provided on the west side of Latrobe Road or on the east side of Latrobe Road between Town Center Boulevard and White Rock Road. On White Rock Road, sidewalks are generally provided on improved frontages. All study intersections provide controlled pedestrian crossings with marked crosswalks.



SOURCE: Fehr and Peers, 2017

FIGURE **4.8-2**

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Existing and Planned Bicycle Facilities

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4.8.2.2 Traffic Operations Analysis

Intersection operations during typical weekday AM and PM peak hours were evaluated under Existing conditions at the following 11 intersections.

- El Dorado Hills Boulevard/Saratoga Way/Park Drive
- El Dorado Hills Boulevard/U.S. 50 WB Ramps
- Latrobe Road/U.S. 50 EB Ramps
- Latrobe Road/Town Center Boulevard
- Latrobe Road/White Rock Road
- White Rock Road/Winfield Way
- White Rock Road/Post Street
- White Rock Road/Vine Street/Valley View Parkway
- Town Center Boulevard/Post Street (Private Road Intersection)
- Silva Valley Parkway/U.S. 50 WB Ramps
- Silva Valley Parkway/U.S. 50 EB Ramps

U.S. 50 freeway operations during AM and PM peak hours were evaluated under Existing conditions in both the westbound and eastbound directions between Silva Valley Parkway and the County Line.

Intersection Operation Analysis Method

Evaluation of traffic conditions on local streets involves analysis of intersection operations, as intersections represent the locations where the roadway capacity is most constrained. Transportation engineers and planners commonly use the concept of Level of Service (LOS) to measure and describe the operation of a local roadway network. LOS qualitatively characterizes traffic conditions associated with varying levels of traffic.

LOS varies from LOS A, which represents free flow traffic conditions with little or no delay, to LOS F, which represents long delays and a facility that is operating at or near its functional capacity. For basic freeway segments (such as U.S. 50 west of El Dorado Hills Boulevard), LOS A represents a vehicle density of up to 11 passenger cars per mile per lane and vehicle speeds (a secondary performance

measure) at or above 65 miles per hour, and LOS F represents a vehicle density of greater than 45 passenger cars per mile per lane and vehicle speeds less than 52 miles per hour.

Intersection traffic operations and LOS for signalized intersections were determined using the procedures and methodology described in the *Highway Capacity Manual (HCM)* (Transportation Research Board 2000, 2010). This methodology uses intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to determine the LOS for traffic signal controlled and all-way stop controlled intersections based on the average control delay experienced for the entire intersection, measured in seconds per vehicle. Control delay includes delay resulting from initial deceleration, queue move-up time, time actually stopped, and final acceleration. **Table 4.8-1**, **Signalized Intersection Level of Service Definitions**, summarizes the LOS criteria for signalized intersections.

Table 4.8-1
Signalized Intersection Level of Service Definitions

LOS	Description	Average Control Delay Per Vehicle (Seconds)
A	Very low delay. At signalized intersections, most vehicles do not stop.	≤ 10
B	Generally good progression of vehicles. Slight delays.	> 10 – 20
C	Fair progression. At signalized intersections, increased number of stopped vehicles.	> 20 – 35
D	Noticeable congestion. At signalized intersections, large portion of vehicles stopped.	> 35 – 55
E	Poor progression. High delays and frequent cycle failure.	> 55 – 80
F	Oversaturation. Forced flow. Extensive queuing.	> 80

Source: Highway Capacity Manual, Transportation Research Board, 2010, 6th Edition.

Intersection traffic operations and LOS for unsignalized intersections (all-way stop-controlled and side street stop-controlled) were determined using the methodology described in the *HCM*. Similar to signalized intersections, LOS for all way stop controlled intersections is based on the average control delay experienced at the intersection, measured in seconds per vehicle. At two-way or side street stop-controlled intersections, the control delay is evaluated separately for each movement, not for the intersection as a whole. The LOS for the intersection is reported based on the single controlled movement with the highest average control delay. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The correlation between the average control delay and LOS for unsignalized intersections is summarized in **Table 4.8-2, Unsignalized Intersection Level of Service Definitions**.

Table 4.8-2
Unsignalized Intersection Level of Service Definitions

LOS	Description	Average Control Delay Per Vehicle (Seconds)
A	No delay for stop-controlled approaches.	≤ 10
B	Operations with minor delay.	> 10 – 15
C	Operations with moderate delays.	> 15 – 25
D	Operations with some delays.	> 25 – 35
E	Operations with high delays, and long queues.	> 35 – 50
F	Operation with extreme congestion, with very high delays and long queues unacceptable to most drivers.	> 50

Source: Highway Capacity Manual, Transportation Research Board, 2000, 2010, 6th Edition.

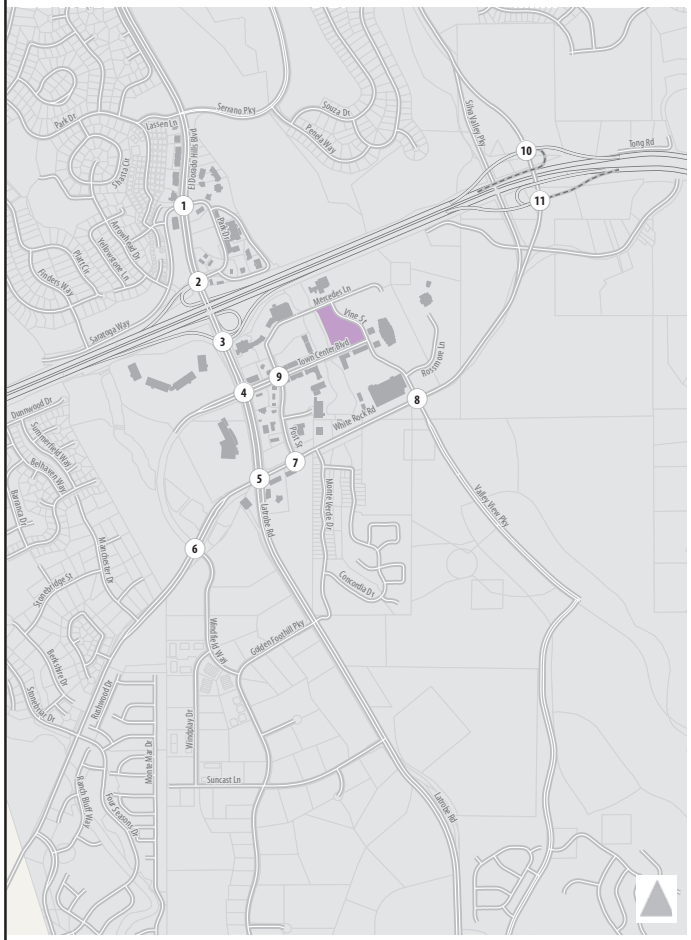
General Plan Circulation Policy TC-Xd establishes that the minimum acceptable operating level for intersections is LOS E in a Community Region or LOS D in the Rural Centers and Rural Regions. The proposed project and the study area are located within a Community Region subject to the LOS E standard.

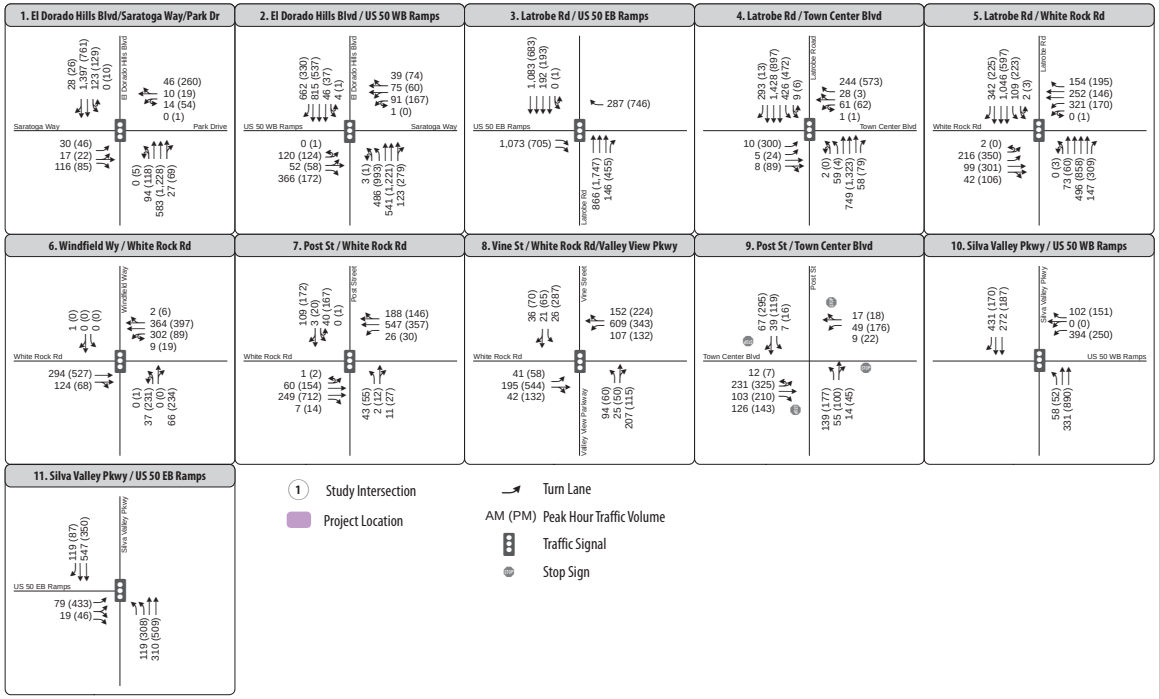
Existing Intersection Volumes and Lane Configurations

Peak traffic conditions generally occur on weekday mornings while school is in session from 7:00 AM to 9:00 AM and during evenings from 4:00 PM to 6:00 PM, based on turning movement counts that were collected in December 2016 and February 2017. **Figure 4.8-3, Existing Conditions Peak Hour Intersection Turning Movement Volumes,** presents the existing AM and PM peak hour turning movement volumes, existing intersection lane configurations, and traffic control devices for the study intersections. Detailed traffic count data are provided in **Appendix 4.8** of this EIR.

Field Observations

Field observations conducted during the AM and PM peak periods identified extensive vehicle queuing near the U.S. 50/El Dorado Hills Boulevard interchange, with the longest queues southbound during the AM peak hour and northbound during the PM peak hour. However, all queued vehicles were served during the peak hour, so the traffic counts are representative of peak hour travel demand.





SOURCE: Fehr and Peers, 2017

FIGURE **4.8-3**

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Existing Conditions Peak Hour Intersection Turning Movement Volumes

Freeway Operations Analysis Method

The Highway Capacity Manual (HCM) includes three different tiers of analysis for freeway facilities, which include planning, design, and operations analysis. The different tiers are intended to provide flexibility to the user in selecting the appropriate analysis level given available resources (time and availability of analysis inputs) and the desired breadth of analysis coverage (more locations with less detail vs. fewer locations with more detail). For example, a planning level analysis requires relatively generalized analysis inputs and is regularly used when the breadth of coverage is more important than analysis detail. The project level analysis in this report is based on operations analysis methods and analyzes each freeway facility separately, focusing on analysis detail instead of breadth of coverage. The operations analysis method is consistent with General Plan Policy TC-Xd and Caltrans traffic impact study guidelines.

Freeway operations were analyzed using the procedures and methodologies contained in the HCM. **Table 4.8-3, Freeway Facility Level of Service Criteria**, describes the HCM LOS criteria for freeway mainline, freeway ramp junctions, and freeway weaving segments. For weaving segments, Caltrans District 3 prefers analysis based on the Leisch Method, which is described in the *Highway Design Manual* (Caltrans, last updated July 1, 2008). For consistency with both the El Dorado County General Plan and Caltrans preference, analysis of freeway weaving segments was conducted using both the HCM and Leisch methods.

Table 4.8-3
Freeway Facility Level of Service Criteria

	Density (vehicle/mile/lane)	
LOS	**Mainline**	**Ramp Junction/Weaving**
A	≤ 11	≤ 10
B	11-18	10-20
C	18-26	20-28
D	26-35	28-35
E	35-45	>35
F	>45	Demand Exceeds Capacity

Source: Transportation Research Board, 2010, 6th Edition.

4.8.2.3 Existing Intersection Operations

Table 4.8-4, Existing Conditions – Study Intersection LOS Summary, summarizes the existing weekday AM and PM peak hour intersection LOS. Detailed calculation work sheets are provided in **Appendix 4.8**

of this Draft EIR. As shown in this table, all of the study intersections currently operate at LOS E or better during both peak hours.

Table 4.8-4
Existing Conditions – Study Intersection LOS Summary

Intersection	Intersection Control	Peak Hour	Avg Delay[2]	LOS
1. El Dorado Hills Boulevard/Park Drive/Saratoga Way	Signal	AM PM	19 20	B C
2. El Dorado Hills Boulevard/U.S. 50 WB Ramps	Signal	AM PM	31 33	C C
3. Latrobe Road/U.S. 50 EB Ramps	Signal	AM PM	33 20	C C
4. Latrobe Road/Town Center Boulevard	Signal	AM PM	16 50	B D
5. Latrobe Road/White Rock Road	Signal	AM PM	31 27	C C
6. White Rock Road/Winfield Way	Signal	AM PM	20 22	C C
7. White Rock Road/Post Street	Signal	AM PM	18 27	B C
8. White Rock Road/Vine Street/Valley View Drive	Signal	AM PM	24 46	C D
9. Town Center Boulevard/Post Street[1]	AWSC	AM PM	13 48	B E
10. Silva Valley Parkway/U.S. 50 WB Ramps	Signal	AM PM	11 10	B A
11. Silva Valley Parkway/U.S. 50 EB Ramps	Signal	AM PM	10 13	B B

Source: Fehr & Peers, 2017.
Notes: AWSC = all-way stop control
[1]The Town Center Boulevard/ Post Street intersection is private (i.e., not a County facility).
[2]The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. For side-street stop controlled intersections, the LOS and control delay for the worst movement is shown. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (TRB, 2010). Intersections 6-11 were analyzed in Synchro 9. Intersections 1-5 were analyzed in SimTraffic.

4.8.2.4 Existing Freeway Operations

Freeway facilities in the County are under the jurisdiction of Caltrans. In recent years, U.S. 50 and interchanges proximate to the project site have undergone or are undergoing various improvements to enhance traffic operations. These improvements include: High Occupancy Vehicle (HOV) lanes east to

Cameron Park Drive, modifications to the U.S. 50/El Dorado Hills Boulevard-Latrobe Road interchange westbound ramps, construction of the U.S. 50/Silva Parkway/White Rock Road interchange, and construction of auxiliary lanes between the U.S. 50/Silva Valley Parkway/White Rock Road and U.S. 50/El Dorado Hills Boulevard/Latrobe Road interchanges. **Table 4.8-5, Existing Conditions – Study Freeway Segments and Ramps LOS Summary**, summarizes the existing weekday AM and PM peak hour U.S. 50 freeway segment LOS. As shown in this table, all eastbound and westbound U.S. 50 study segments currently operate at LOS D or better during both peak hours.

Table 4.8-5
Existing Conditions – Study Freeway Segments and Ramps LOS Summary

Segment	Facility Type	Peak Hour[1]	Density[1]	LOS
Eastbound				
A. Latrobe Road off-ramp	Diverge	AM	22	C
		PM	30	D
B. El Dorado Hills Boulevard off-ramp	Diverge	AM	14	B
		PM	26	C
C. El Dorado Hills Boulevard on-ramp to Silva Valley Parkway off-ramp	Weave	AM	10	A
		PM	23	C
D. Silva Valley Parkway on-ramp (loop)	Merge	AM	11	B
		PM	21	C
E. Silva Valley Parkway to Bass Lake Road	Basic	AM	11	A
		PM	20	C
Westbound				
A. Bass Lake Road to lane addition	Basic	AM	29	D
		PM	17	B
B. Lane addition to Silva Valley Parkway	Basic	AM	19	C
		PM	12	B
C. Silva Valley Parkway off-ramp	Diverge	AM	13	B
		PM	5	A
D. Silva Valley Parkway on-ramp to El Dorado Hills Boulevard off-ramp	Weave	AM	34	D
		PM	18	B
E. El Dorado Hills Boulevard on-ramp	Marge	AM	34	D
		PM	24	C

Source: Fehr & Peers, 2017.
Notes:
[1]Density reported as passenger cars per mile per lane. Density is not reported for LOS F operations.

4.8.3 REGULATORY CONSIDERATIONS

Existing transportation policies, laws, and regulations that would apply to the proposed project are summarized below. This information provides a context for the impact discussion related to the project's consistency with applicable regulatory requirements.

4.8.3.1 State Laws and Regulations

California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for operating and maintaining the State highway system. In the project vicinity, U.S. 50 falls under Caltrans jurisdiction. Caltrans provides administrative support for transportation programming decisions made by the California Transportation Commission (CTC) for state funding programs. The State Transportation Improvement Program (STIP) is a multi-year capital improvement program that sets priorities and funds transportation projects envisioned in long-range transportation plans.

In June 2014, Caltrans approved a *Transportation Concept Report (TCR) for Highway 50*. Caltrans prepares a TCR, which is a long-range (20-year) planning document, for each state highway. The purpose of each TCR is to identify existing route conditions and future needs and includes a concept LOS standard. The cover of the TCR states that the *U.S. 50 Corridor System Management Plan* (Caltrans 2009), referred to as the CSMP, now serves as the TCR for Highway 50 from I-80 in West Sacramento to the Cedar Grove exit, which is east of the study area. Caltrans has established LOS E as the 'concept LOS' consistent with a four lane freeway with HOV lanes, auxiliary lanes, and intelligent transportation systems (ITS). Since LOS E is identified as the concept LOS, no further degradation of service from existing "E" is acceptable. The concept LOS is a generalized LOS for large study segments used by Caltrans that reflects the minimum level of service or quality of operations acceptable for the route segment.

According to the *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2002), the existing LOS should be maintained if a freeway facility is currently operating at an unacceptable LOS (e.g., LOS F). A project impact is said to occur if the project degrades LOS from an acceptable to unacceptable level. A project impact may also occur when the addition of project trips exacerbates existing LOS F conditions and leads to a perceptible increase in density on freeway mainline segments or ramp junctions, or a perceptible increase in service volumes in a weaving area. In addition, a project impact is said to occur when the addition of project trips causes a queue on the off-ramp approach to a ramp terminal intersection to extend beyond its storage area and onto the freeway mainline.

4.8.3.2 Local Plans and Policies

Sacramento Area Council of Governments

The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six-county Sacramento Region. Its members include the counties of Sacramento, El Dorado, Placer, Sutter, Yolo, and Yuba, as well as 22 cities. SACOG provides transportation planning and funding for the region, and serves as a forum for the study and resolution of regional issues. In addition to preparing the region's long- range transportation plan, SACOG assists in planning for transit, bicycle networks, clean air, and airport land uses.

The *Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) *for 2036* (SACOG 2016) is a federally mandated long-range fiscally constrained transportation plan for the six-county area. Most of this area is designated a federal non-attainment area for ozone, indicating that the transportation system is required to meet stringent air quality emissions budgets to reduce pollutant levels that contribute to ozone formation. To receive federal funding, transportation projects nominated by cities, counties, and agencies must be consistent with the MTP/SCS.

The *2017-20 Metropolitan Transportation Improvement Program* (MTIP) is a list of transportation projects and programs to be funded and implemented over the next 3 years. SACOG submits this document to Caltrans and amends the program on a quarterly cycle. Only projects listed in the MTP/SCS may be included in the MTIP.

El Dorado County Transportation Commission (EDCTC)

The EDCTC is the Regional Transportation Planning Agency (RTPA) for El Dorado County, except for the portion of the County within the Tahoe Basin, which is under the jurisdiction of the Tahoe Regional Planning Agency (TRPA).

One of the fundamental responsibilities which results from RTPA designation is the preparation of the County's Regional Transportation Plan. The *El Dorado County Regional Transportation Plan 2015 – 2035 (RTP)* is designed to be a blueprint for the systematic development of a balanced, comprehensive, multi-modal transportation system. The EDCTC submits the RTP to SACOG for inclusion in the MTP/SCS process.

The *El Dorado County Bicycle Transportation Plan - 2010 Update* provides a blueprint for the development of a bicycle transportation system on the western slope of El Dorado County. The plan updates the El Dorado County Bicycle Master Plan, which was adopted by the EDCTC in January 2005.

In May 2013, the EDCTC completed the *El Dorado Hills Community Transit Needs Assessment and U.S. 50 Corridor Operations Plan* (Plan), which explores how the recent growth and projected development impact the need for transit services, and identifies the most appropriate type and level of service needed given the demand. The Plan represents a recommendation from the Western El Dorado County 2008 Short-Range Transit Plan to study and consider improved transit service in the El Dorado Hills area.

In April 2015, the EDCTC adopted the Coordinated Public Transit – Human Services Transportation Plan, which is intended to improve mobility of individuals who are disabled, elderly, or of low-income status. The plan focuses on identifying needs specific to those population groups and identifying strategies to meet their needs.

County of El Dorado General Plan

The following presents relevant guiding and implementing policies from the current County of El Dorado General Plan (2004) contained within the Transportation and Circulation Element (additional policies are listed under the following subsection **El Dorado County Initiative Measure E**).

GOAL TC-X: To coordinate planning and implementation of roadway improvements with new development to maintain adequate levels of service on County roads.

Policy TC-Xd Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. The volume to capacity ratio of the roadway segments listed in Table TC-2 shall not exceed the ratio specified in that table. Level of Service will be as defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council) and calculated using the methodologies contained in that manual. Analysis periods shall be based on the professional judgment of the Department of Transportation which shall consider periods including, but not limited to, Weekday Average Daily Traffic (ADT), AM Peak Hour, and PM Peak hour traffic volumes.

Policy TC-Xe For the purposes of this Transportation and Circulation Element, "worsen" is defined as any of the following number of project trips using a road facility at the time of issuance of a use and occupancy permit for the development project:

A. A 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or

B. The addition of 100 or more daily trips, or

C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.

GOAL TC-2: To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without access to automobiles that also helps to reduce congestion, and improves the environment.

GOAL TC-3: To reduce travel demand on the County's road system and maximize the operating efficiency of transportation facilities, thereby reducing the quantity of motor vehicle emissions and the amount of investment required in new or expanded facilities.

Policy TC-3c The County shall encourage new development within Community Regions and Rural Centers to provide appropriate on-site facilities that encourage employees to use alternative transportation modes. The type of facilities may include bicycle parking, shower and locker facilities, and convenient access to transit, depending on the development size and location.

GOAL TC-4: To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.

GOAL TC-5: To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode.

Policy TC-5b In commercial and research and development subdivisions, curbs and sidewalks shall be required on all roads. Sidewalks in industrial subdivisions may be required as appropriate.

The El Dorado County Community Development Agency's[1] (CDA) *Transportation Impact Study Guidelines* (El Dorado County 2014) set forth the protocols and procedures for conducting transportation analysis in the County, including the identification of the study area (TIS Guidelines). All of the study intersections for the proposed project are within the County's jurisdiction. This traffic analysis is consistent with the TIS Guidelines.

1 As of May 18, 2017 the El Dorado County Community Development Agency (CDA) has been re-organized into separate departments within Community Development Service. These departments are Environmental Management Department, Planning and Building Department, and the Transportation Department.

El Dorado County Initiative Measure E

General Plan Policy TC-X was revised through the approval of Measure E by County voters in June 2016. The key updated policies state:

Policy TC-Xa1 Traffic from residential development projects of five or more units or parcels of land shall not result in, or worsen, Level of Service F (gridlock, stop-and-go) traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county.

Policy TC-Xa3 All necessary road capacity improvements shall be fully completed to prevent cumulative traffic impacts from new development from reaching Level of Service F during peak hours upon any highways, arterial roads and their intersections during weekday, peak-hour periods in unincorporated areas of the county before any form of discretionary approval can be given to a project.

Policy TC-Xa7 Before approval of any kind to a residential development project of five or more units or parcels of land, the County shall make a finding that the project complies with the policies above. If this finding cannot be made, then the County shall not approve the project in order to protect the public's health and safety as provided by state law to assure that safe and adequate roads and highways are in place as such development occurs.

Policy TC-Xf At the time of approval of a tentative map for a single family residential subdivision of five or more parcels that worsens (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element based on existing traffic plus traffic generated from the development plus forecasted traffic growth at 10-years from project submittal.

For all other discretionary projects that worsen (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element.

El Dorado County Transit Authority

El Dorado County Transit Authority (EDCTA) operates El Dorado Transit, which provides public transit service within the project area. El Dorado Hills is currently served by El Dorado Transit Dial-A-Ride services, the Sacramento Commuter Service, and the 50 Express service. Both the Sacramento Commuter Service and the 50 Express serve the El Dorado Hills Park-and-Ride Lot, but do not circulate within the community. The Sacramento Commuter route also serves the Vine Street and Mercedes Lane Park-and-Ride lot.

The El Dorado Park-and-Ride Facilities Master Plan, November 2007 calls for constructing nine new facilities over 20 years. The Plan calls for EDCTA to assume primary responsibility for existing Park-and-Ride facilities in the county and sets forth an annual program to fund the upkeep and operation. The Plan reiterates that demand exceeds supply at the Park-and-Ride lot, referred to as the El Dorado Hills Multi-modal Facility, located in the northeast corner of the White Rock Road/Latrobe Road intersection.

4.8.4 IMPACTS AND MITIGATION MEASURES

4.8.4.1 Significance Criteria

In accordance with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines*, the impact of the proposed project related to transportation and traffic would be considered significant if it 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; or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Transportation/Circulation System Effectiveness (Level of Service) Impact Criteria

General Plan Circulation Policy TC-Xd provides Level of Service (LOS) thresholds for County-maintained roads and state highways as follows[2] (these LOS thresholds do not apply to private roadway facilities):

- Level of Service for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. The volume to capacity ratio of the roadway segments listed in Table TC-2 as applicable shall not exceed the ratio specified in that table. *(Note: None of the study roadways are presented in Table TC-2; the study area is located within a Community Region)*

- If a project causes the peak hour level of service or volume/capacity ratio on a county road or state highway that would otherwise meet the County standards (without the project) to exceed County LOS thresholds, then the impact shall be considered significant.

- If any county road or state highway fails to meet the above listed county standards for peak hour LOS or volume/capacity ratios without the proposed project, and the project will worsen conditions on the road or highway, then the impact shall be considered significant. The term worsen is defined for the purpose of this paragraph according to General Plan Policy TC-Xe as follows:

  A. A two (2) percent increase in traffic during the AM peak hour, PM peak hour or daily, OR

  B. The addition of 100 or more daily trips, OR

  C. The addition of 10 or more trips during the AM peak hour or the PM peak hour.

Caltrans considers the following to be significant impacts:

- Project traffic added to off-ramps results in vehicle queues that extend into the ramp's deceleration area or onto the freeway (i.e., exceed the available storage capacity);

- Project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service.

- Any additional traffic generated by the project is added to a facility already operating at LOS E.[3]

4.8.4.2 Issues adequately addressed in the Initial Study

As noted in the Initial Study, the County has no congestion management plan that is applicable to the project site or vicinity. As such, there would be no impact.

As discussed in the Initial Study, the project would not result in a change in established air traffic patterns for publicly or privately operated airports or landing fields in the project vicinity. There are no

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2 El Dorado County Community Development Agency's Transportation Impact Study Guidelines

3 The U.S. 50 Transportation Concept Report and Corridor System Management Plan identifies LOS E as the "Concept LOS" for U.S. 50 from the Sacramento/El Dorado County line to Bass Lake Road.

public or private airports within 2 miles of the project site, and it is not within an airport land use plan boundary. As such, there would be no impact.

As noted in the Initial Study, the existing roadway network that provides access to the project site would not be modified, and no new roadways would be constructed. The proposed project would provide a new driveway along Vine Street, and a motor court and driveway would be located along Town Center Boulevard. However, the design of the proposed project would not cause a permanent alteration to the local vehicular circulation routes and patterns, or impede public access or travel on any public rights-of-way and no design hazards would be created. Further, the final design of the proposed project, including curb cuts, ingress, egress, and other streetscape changes, would be subject to review by the El Dorado County Transportation Department and would be required to comply with all requirements of the Department. As a result, impacts would be less than significant.

As discussed in the Initial Study, the El Dorado Hills Fire Department has reviewed the proposed project and will require all access roadways and fire hydrant systems be installed and in service prior to any combustible materials being brought onto the site. An emergency access connection would be provided between Town Center Boulevard and Mercedes Lane. Project conditions of approval will require that the project landscaping plan exclude the planting of any trees adjacent to the Fire Apparatus Access road on the west side of the project site that could impede fire apparatus access when fully grown. As a result, the impact related to emergency access would be less than significant.

4.8.4.3 Methodology

The impacts of the proposed project to the surrounding transportation system were evaluated using the County of El Dorado guidelines. The operation of 10 study intersections, one private intersection, and 10 freeway segments and ramps were evaluated with LOS calculations for the weekday morning (AM) and evening (PM) peak periods for the four scenarios listed below:

Scenario 1: Existing Conditions

Scenario 2: Existing Plus Project Conditions

Scenario 3: Near-Term Plus Project Conditions

Scenario 4: Long-Term Cumulative Plus Project Conditions

A description of the methods used to estimate the amount of traffic generated by the proposed project is provided below. Project-specific impacts are described under **Section 4.8.4.3, Project Impacts and Mitigation Measures**.

Scenario 1: Existing Conditions

Existing conditions are represented by existing traffic volumes on the existing roadway network. Existing traffic volumes were obtained from counts conducted during typical weekday AM and PM peak periods in December 2016 and February 2017. Existing levels of service are presented in **Table 4.8-4**.

Scenario 2: Existing Plus Project Conditions

Existing Plus Project conditions are represented by the addition of proposed project traffic to existing traffic volumes on the existing roadway network. Existing Plus Project conditions were compared to Existing conditions to determine potential immediate project impacts.

Project Traffic Estimates

The amount of traffic added to the roadway system by the proposed project was estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. The first step estimates the amount of traffic that would be generated once the proposed project is built and fully occupied. The second step estimates the direction of travel to and from the project site. The third step assigns the proposed project trips to specific street segments and intersection turning movements. The results are described below.

Project Trip Generation

The amount of traffic added to the surrounding roadway system by the proposed project was estimated using peak hour trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (9th Edition), with adjustments to account for internal vehicle trips and walking trips given that the project would be located in the Town Center.

The traffic study completed for the proposed project determined that the combined effects of the project's land use, location, and development scale would contribute to a reduction in off-site average weekday vehicle "trips" (one vehicle trip is generated when a person drives from their home to shopping, school, or their job. Their return drive home is another trip). This reduction is due largely to the project's proximity to commercial and retail services and connections between the project and these services. That is, most of the reduction in total off-site vehicle trips generated by the project is attributable to those trips either (1) beginning on the project site, traveling to adjacent services, and ending on the project site without using off-site roadways or (2) being replaced by walking.

Traditionally, traffic engineers and transportation planners have estimated internalization of project trips using one of two methods. First, they would estimate it based on their professional judgment.

Alternatively, professionals relied on the Institute of Transportation Engineers' (ITE) internalization methodology presented in the ITE Trip Generation Handbook. Although this has been applied in thousands of studies in California, the methodology was limited as it was based on only six surveys in Florida. Additionally, the ITE internalization methodology only accounts for the land use types on the mixed-use site. Given the limited input information (land use amount and type) and the limited range of data (six surveys), the accuracy of the internalization estimates has recently been found to generally under-estimate internalization of trips from mixed-use projects.

Recognizing the limitations of the simplified methodology applied in the ITE handbook, the United States Environmental Protection Agency (U.S. EPA) commissioned a study to develop a more substantial, statistically superior methodology. This methodology, identified as MXD (or mixed-use development trip generation), begins with ITE rates and develops trip internalization estimates based on a series of factors tied to numerous site attributes. It should also be noted that the MXD model has been developed in cooperation with the U.S. EPA and ITE, and that ITE is currently reviewing the model for potential inclusion in their updated recommended practice for evaluating mixed-use development projects. MXD trip internalization methodology is detailed in **Appendix 4.8**.

MXD Model Inputs and Trip Generation Estimates

To determine the amount of trips that would be internal to the project site, an MXD trip generation estimate was prepared. The MXD analysis first begins with gross trip rates identified in the ITE's Trip Generation (9th Edition, 2012). It then incorporates the MXD methodology for "matching" trips to estimate the amount of internalization within the project area. **Table 4.8-6, Project Trip Generation Rates and Estimates,** summarizes project land use, assumed trip rates, calculated trip generation totals, and adjustments to account for trips occurring between the project and other parts of the Town Center.

Table 4.8-6
Project Trip Generation Rates and Estimates

			Trips					
	Trip Rate		AM Peak Hour			PM Peak Hour		
Land Use	AM	PM	In	Out	Total	In	Out	Total
Multifamily Housing (Dwelling Units)	0.51	0.62	22	87	109	87	46	133
Town Center Trips						18	10	28
Vehicle Trips External to Town Center			22	87	109	69	36	105

Source: Institute of Transportation Engineers' Trip Generation (9th Edition, 2012)

According to the MXD analysis, the project is projected to generate 109 AM peak hour vehicle trips and 133 PM peak hour vehicle trips. About 28 trips in the PM peak hour are expected to remain within the Town Center.

Project Trip Distribution

The distribution was developed using the following sources and analytical techniques:

- Existing travel patterns based on traffic counts
- Traffic assignment using the validated base year El Dorado County travel demand forecasting model
- Project access

As shown on **Figure 4.8-4, Project Trip Distribution**, the largest share of project trips (37 percent) would use U.S. 50 to/from the west in the morning and evening with 11 percent traveling on U.S. 50 to/from the east. Travel to/from the north on El Dorado Hills Boulevard represents about eight percent of project travel. Travel to/from the east and west on White Rock Road is fairly balanced at eight percent. About 20 percent of project travel will have an origin/destination south of White Rock Road.

Project Trip Assignment

The proposed project trips were assigned to the roadway system based on the directions of approach and departure discussed above. The locations of complimentary land uses and local knowledge of the study area helped determine specific trip routes. **Figure 4.8-5, Project Trip Assignment**, shows the expected increases in peak hour intersection turning movements due to the proposed project. The new project trips (as shown on **Figure 4.8-5)** were added to existing traffic volumes to establish intersection volumes for Existing Plus Project conditions, shown on **Figure 4.8-6, Existing Plus Project Conditions Peak Hour Intersection Turning Movement Volumes**.

Scenario 3: Near-Term Plus Project Conditions

The near-term analysis is used by El Dorado County to determine compliance with General Plan Policy TC-Xa(3), which was created by the approval of Measure E by County voters in June 2016. The near-term cumulative analysis, which is not required by CEQA and does not constitute an analysis of transportation impacts for CEQA purposes, represents conditions 10 years beyond the existing baseline (i.e., 2027 conditions).

SOURCE: Fehr and Peers, 2017

FIGURE **4.8-4**

IMPACT SCIENCES

Project Trip Distribution

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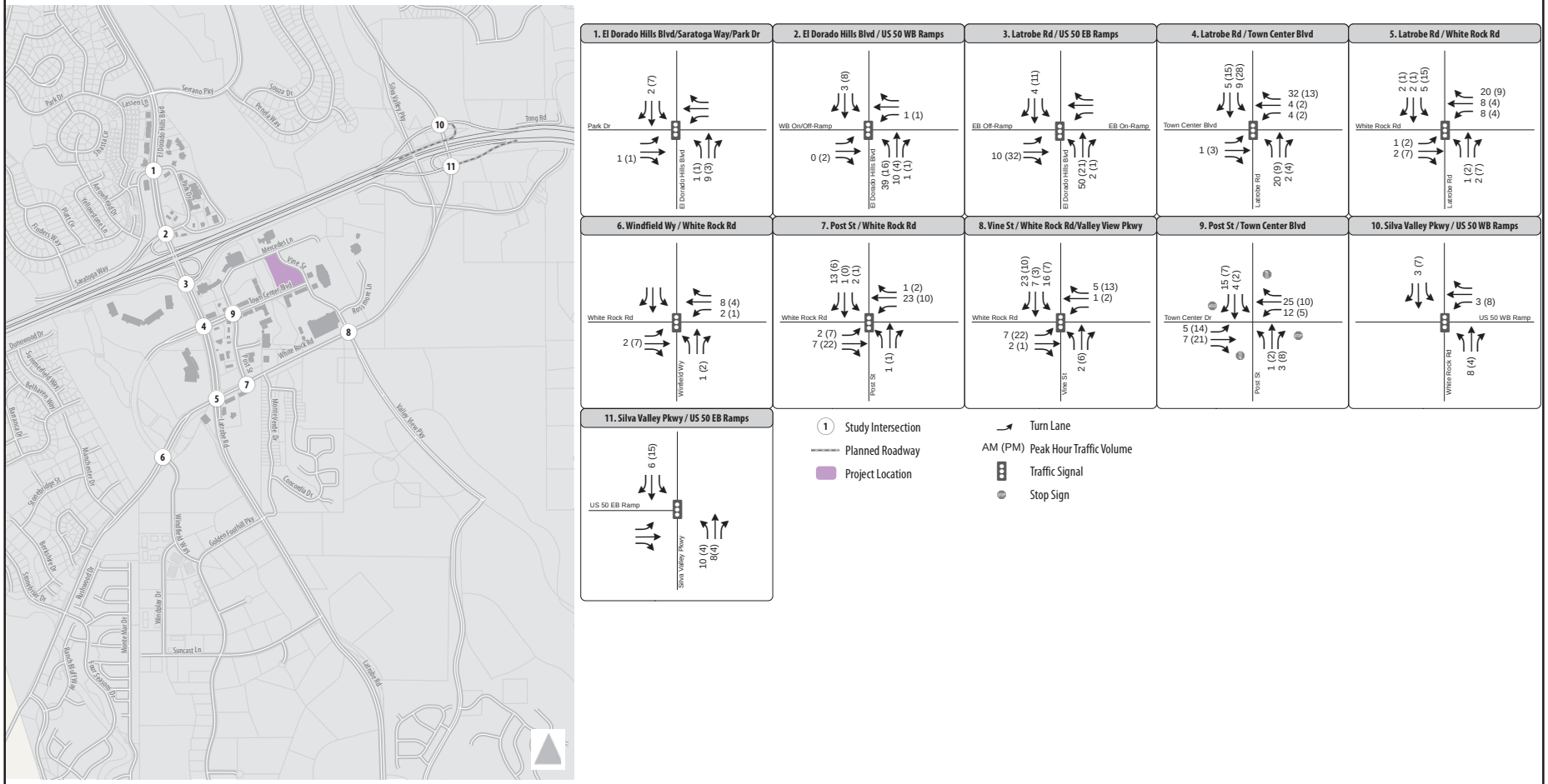

SOURCE: Fehr and Peers, 2017

FIGURE **4.8-5**

IMPACT SCIENCES

Project Trip Assignment

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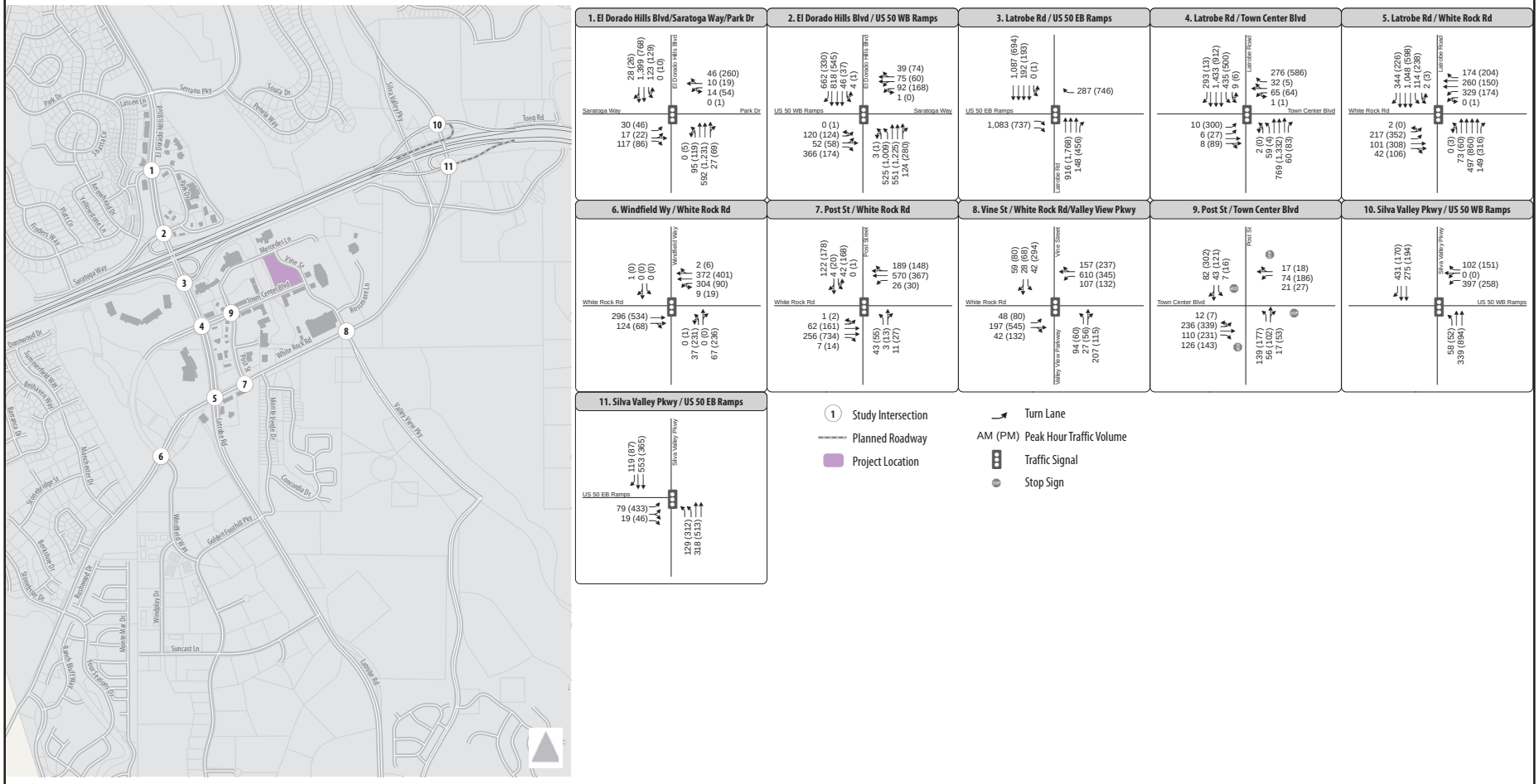


SOURCE: Fehr and Peers, 2017

FIGURE **4.8-6**

IMPACT SCIENCES

Existing Plus Project Conditions Peak Hour Intersections Turning Movement Volumes

Near-Term Conditions Forecast Development

The El Dorado County travel demand forecasting model was used to develop traffic volume forecasts for near-term cumulative conditions. The following steps, based on coordination with El Dorado County Community Development Agency staff, were taken to develop the land use and roadway network inputs for the Near-Term (2027) analysis scenario forecasting model:

1. Land Use Growth – Used linear interpolation between the base year and future year models to develop 10-year land use growth projections.
2. 10-Year Land Use Forecasts – Added land use growth from Step 1 to the base year model land use inputs.
3. Capital Improvement Program Projects – Identified roadway improvement projects from the adopted 2016 Capital Improvement Program with construction planned by 2027. **Table 4.8-7, Capacity-Enhancing Roadway Improvements (Construction within 10 years),** below summarizes roadway improvement projects identified in the El Dorado County 2016 Capital Improvement Program that are planned to be under construction by 2027.
4. Near-Term Transportation Network – Added roadway improvement projects from Step 3 to the base year model transportation network.
5. Near-Term No Project Forecasts – Developed AM and PM peak hour traffic volume forecasts for study intersections and freeway facilities using the inputs from Steps 1 through 4.
6. Near-Term Plus Project Forecasts – Added project trips to the Near-Term No Project Forecasts from Step 5 to developed AM and PM peak hour traffic volume forecasts for study intersections and freeway facilities with the proposed project.

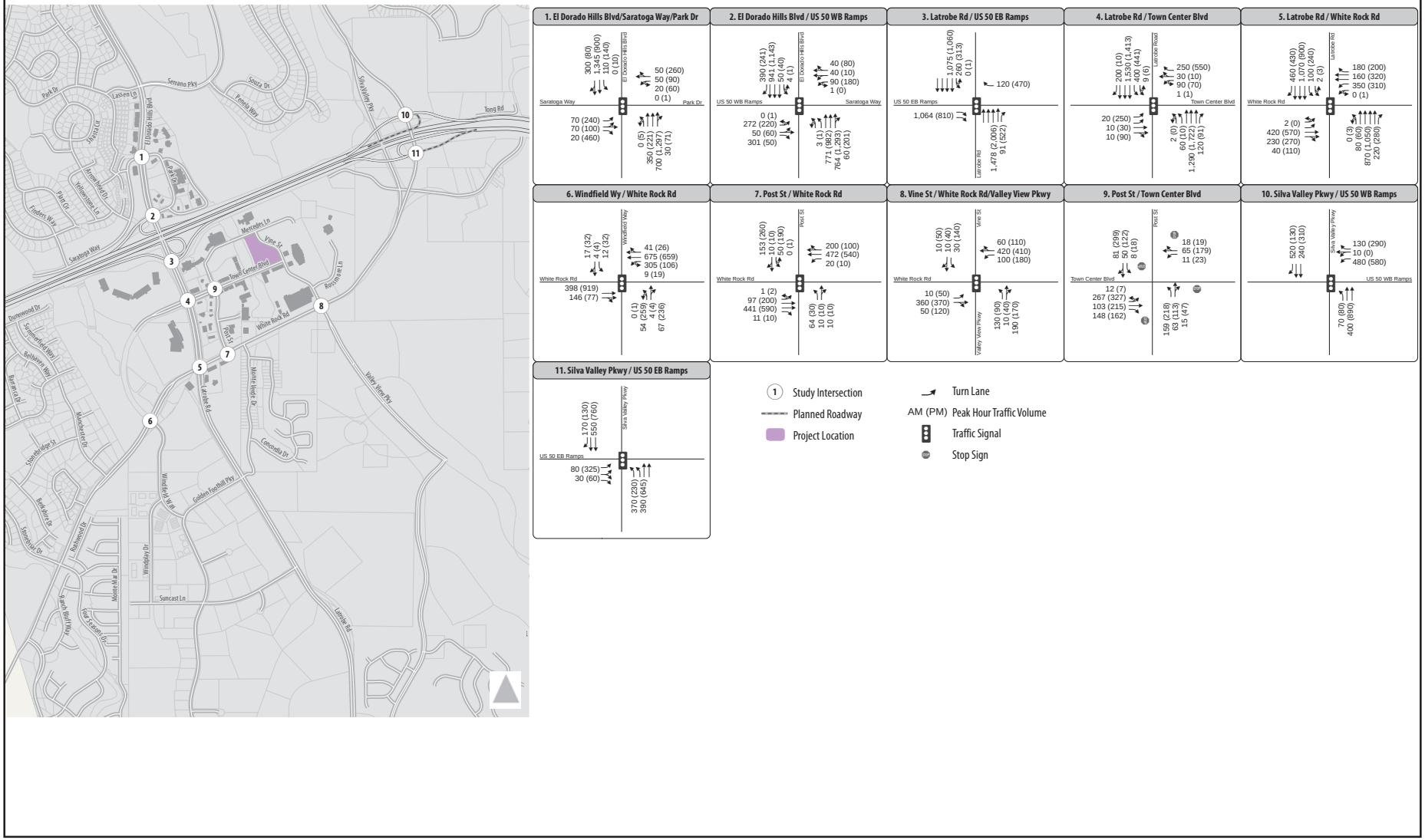
Table 4.8-7
Capacity-Enhancing Roadway Improvements (Construction within 10 years)

Project Name	Project Description	Begin Construction
Country Club Drive – Silva Valley Parkway to Tong Road	Construct new 2-lane road Country Club Drive from Silva Valley Parkway to Tong Road. Work includes curb, gutter, and sidewalk on both sides of the roadway. CIP#71362	By 2026
Country Club Drive Extension – Tong Road to Bass Lake Road	Construct 2-lane extension of Country Club Drive from Tong Road to Bass Lake Road, with 8-foot paved shoulder, curb and gutter, and new intersection at Bass Lake Road. CIP#71361	By 2026
Country Club Drive Realignment -Bass	Realign Country Club Drive from Bass Lake Road/Old Bass Lake Road to Tierra de Dios Drive. Work includes constructing a 2-lane road with 8-	By 2018

Project Name	Project Description	Begin Construction
Lake Road to Tierra De Dios Drive	foot paved shoulders, sidewalk, curb and gutter. CIP#71360	
Green Valley Road Widening – County Line to Sophia Parkway	Widen Green Valley Rd from County line to Sophia Parkway from two to four lanes. CIP#72376	By 2017
Saratoga Way Ext - Phase 1	Construct new 24-lane arterial to extend Saratoga Way from Wilson Boulevard to Sacramento County line and a 2-lane arterial from Wilson Boulevard to the current terminus near Finders Way to Sacramento County Line; includes median, 6-ft shoulders, right two-way left-turn pocket onto from Finders Way to Arrowhead, asphalt path, drainage system, environmental clearance and secure ROW for future 4-lane road from County Line to El Dorado Hills Boulevard CIP#71324 (Phase 2 CIP#GP147 - See ELD19234 in MTP.)	By 2018
Silver Springs Parkway to Bass Lake Road (South Segment)	Realign Bass Lake Road south of Green Valley Road through the proposed Silver Springs subdivision, which is west of the existing Bass Lake Road. The new road is named Silver Springs Parkway. That development is responsible for building Silver Springs Parkway through their development. Silver Springs Parkway will be a 2-lane standard divided roadway with shoulders. CIP#76108	By 2018
U.S. 50 Auxiliary Lane Westbound – Bass Lake Road to Silva Valley Parkway	Widen U.S. 50 to add an auxiliary lane to westbound US 50 connecting the Bass Lake Road Interchange and Silva Valley Parkway Interchange. Timing of construction to be concurrent with or after the Bass Lake Road Interchange improvement. CIP#53117	By 2026
U.S. 50 / El Dorado Hills Blvd Interchange Improvements – (Phase 2B)	Reconstruct eastbound diagonal on-ramp and eastbound loop off-ramp for the ultimate configuration; add a lane to northbound El Dorado Hills Blvd under the overpass (eliminates merge lane and improves traffic flow from the eastbound loop off-ramp); eastbound diagonal on-ramp will be metered and have an HOV bypass. Project split from ELD15630 (CIP#71323).	By 2026
White Rock Rd Widening -Manchester to Sacramento County Line (Connector Segment)	Widen White Rock Rd from 2 to 4 lanes, divided, from Manchester Dr west to Sacramento County Line. CIP#GP137	By 2026

Source: El Dorado County's Adopted 2016 Capital Improvement Program, December 6, 2016. (Section 4.1 – West Slope Road/Bridge Individual Project Summaries)

Figures 4.8-7 and **4.8-8** show AM and PM peak hour traffic volume forecasts used for the analysis of Near-Term No Project Conditions and Near-Term Plus Project Conditions.



SOURCE: Fehr and Peers, 2017

FIGURE **4.8-7**

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Peak Hour Traffic Volumes and Lane Configurations – Near-Term No Project

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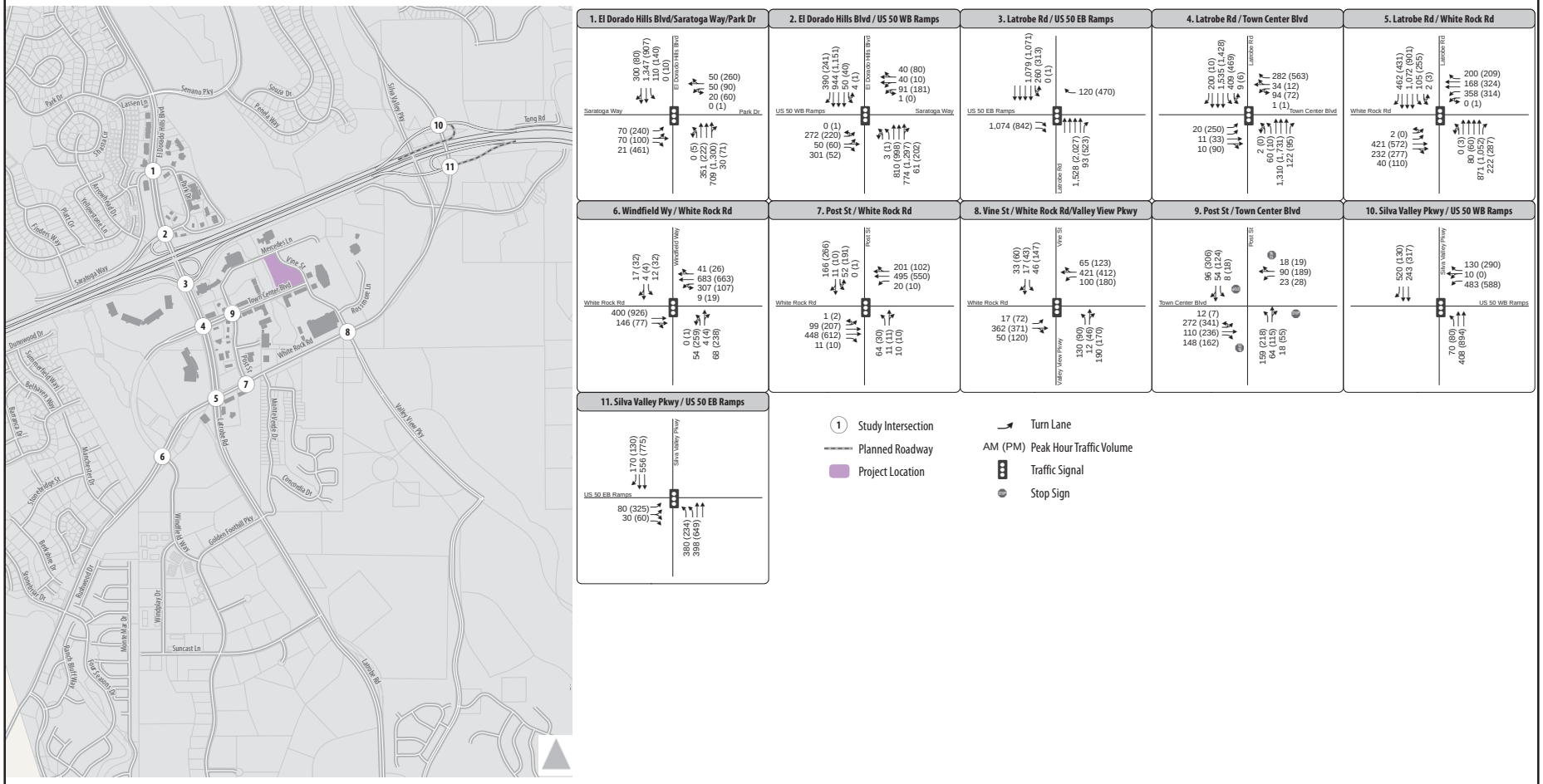

SOURCE: Fehr and Peers, 2017

FIGURE **4.8-8**

IMPACT SCIENCES

Peak Hour Traffic Volumes and Lane Configurations – Near-Term Plus Project

4.8.4.4 Project Impacts and Mitigation Measures

Impact TRANS-1: **Development of the proposed project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the traffic circulation system under Existing plus Project Conditions. (*Less than Significant*)**

The traffic impact analysis below examines transportation conditions in the study area under existing conditions and identifies the project's impacts under this scenario. An assessment of the proposed project's contribution to near-term and long-term cumulative impacts is included in **Section 4.8.4.4 Cumulative Impacts and Mitigation Measures**.

Impacts under Existing Plus Project Intersection Conditions

As shown in **Table 4.8-6**, the proposed project would result in the addition of 109 AM peak hour vehicle trips and 105 PM peak hour vehicle trips on the study area road network. The effects of these additional vehicle trips on intersection levels of service were calculated for the Existing Plus Project condition, and the resulting levels of service are presented in **Table 4.8-8, Existing and Existing Plus Project Intersection LOS Summary**.

Table 4.8-8
Existing and Existing Plus Project Intersection LOS Summary

			Existing Conditions		Existing Plus Project Conditions	
Intersection	Intersection Control	Peak Hour	Avg Delay[2]	LOS	Avg Delay[2]	LOS
1. El Dorado Hills Boulevard/Park Drive/Saratoga Way	Signal	AM PM	19 20	B C	20 20	B C
2. El Dorado Hills Boulevard/U.S. 50 WB Ramps	Signal	AM PM	31 33	C C	32 35	C C
3. Latrobe Road/U.S. 50 EB Ramps	Signal	AM PM	33 20	C C	29 21	C C
4. Latrobe Road/Town Center Boulevard	Signal	AM PM	16 50	B D	16 53	B D
5. Latrobe Road/White Rock Road	Signal	AM PM	31 27	C C	31 27	C C
6. White Rock Road/Winfield Way	Signal	AM PM	20 22	C C	20 22	C C
7. White Rock Road/Post Street	Signal	AM PM	18 27	B C	19 27	B C

Intersection	Intersection Control	Peak Hour	Existing Conditions Avg Delay[2]	Existing Conditions LOS	Existing Plus Project Conditions Avg Delay[2]	Existing Plus Project Conditions LOS
8. White Rock Road/Vine Street/Valley View Drive	Signal	AM	24	C	28	C
		PM	46	D	50	D
9. Town Center Boulevard/Post Street[1]	AWSC	AM	13	B	14	B
		PM	48	E	49	E
10. Silva Valley Parkway/U.S. 50 WB Ramps	Signal	AM	11	B	11	B
		PM	10	A	10	A
11. Silva Valley Parkway/U.S. 50 EB Ramps	Signal	AM	10	B	11	B
		PM	13	B	13	B

Source: Fehr & Peers, 2017.
Notes: AWSC = all-way stop control
[1]The Town Center Boulevard/ Post Street intersection is private (i.e., not a County facility).
[2]The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. For side-street stop controlled intersections, the LOS and control delay for the worst movement is shown. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (TRB, 2010). Intersections 6-11 were analyzed in Synchro 9. Intersections 1-5 were analyzed in SimTraffic.

Table 4.8-8 indicates that with the addition of project traffic, all County-owned study intersections would continue to operate at LOS E or better during both the AM and PM peak hours. Therefore, traffic generated by the project would not result in significant impacts at the study intersections, given that all study intersections would operate acceptably under Existing Plus Project conditions.

Impacts on Freeway Segments and Ramps under Existing Conditions

The proposed project's contribution to freeway traffic density would be small. As shown in **Table 4.8-9, Existing and Existing Plus Project Freeway Segments and Ramps LOS Summary**, adding the proposed project freeway traffic to existing densities would not worsen operations on any of the study freeway segments or ramps from LOS D or better. Therefore, the proposed project would have a less than significant impact on freeway operation under Existing Plus Project conditions.

Table 4.8-9
Existing and Existing Plus Project Conditions – Study Freeway Segment LOS Summary

Segment	Facility Type	Peak Hour[1]	Existing Conditions Density[1]	Existing Conditions LOS	Existing Plus Project Conditions Density[1]	Existing Plus Project Conditions LOS
Eastbound						
A. Latrobe Road off-ramp	Diverge	AM	22	C	22	C
		PM	30	D	30	D

Segment	Facility Type	Peak Hour[1]	Existing Conditions		Existing Plus Project Conditions	
			Density[1]	LOS	Density[1]	LOS
B. El Dorado Hills Boulevard off-ramp	Diverge	AM	14	B	14	B
		PM	26	C	26	C
C. El Dorado Hills Boulevard on-ramp to Silva Valley Parkway off-ramp	Weave (HCM)[2]	AM	10	A	10	A
		PM	23	C	23	C
	Basic	AM	7	A	7	A
		PM	15	B	15	B
D. Silva Valley Parkway on-ramp (loop)	Merge	AM	11	B	12	B
		PM	21	C	21	C
E. Silva Valley Parkway to Bass Lake Road	Basic	AM	11	A	11	A
		PM	20	C	20	C
Westbound						
B. Bass Lake Road to lane addition	Basic	AM	29	D	29	D
		PM	17	B	18	B
C. Lane addition to Silva Valley Parkway	Basic	AM	19	C	19	C
		PM	12	B	12	B
D. Silva Valley Parkway off-ramp	Diverge	AM	13	B	13	B
		PM	5	A	5	A
E. Silva Valley Parkway on-ramp to El Dorado Hills Boulevard off-ramp	Weave (HCM)[2]	AM	34	D	34	D
		PM	18	B	18	B
	Basic	AM	19	C	19	C
		PM	11	A	11	A
F. El Dorado Hills Boulevard on-ramp	Merge	AM	34	D	34	D
		PM	24	C	24	C

Source: Fehr & Peers, 2017.
Notes:
[1] Density reported as passenger cars per mile per lane. Density is not reported for LOS F operations.
[2] This weave section lies outside the realm of weaving using the Leisch Method. As a result, it is analyzed as a basic segment.

Mitigation Measures: No mitigation measures are required.

Impact TRANS-2: Development of the proposed project would not conflict with policies, programs or plans for alternate transportation. (*Less than Significant*)

The proposed project would have a significant impact to alternate transportation programs for pedestrian, bicycle, and transit facilities and services if an element of the proposed project would conflict with existing or planned pedestrian, bicycle, and transit services or if the proposed project would create hazardous conditions for pedestrians or bicyclists that currently do not exist.

Pedestrians and Bicycle Facilities

Pedestrian facilities in the Town Center include attached sidewalks on Town Center Boulevard, Post Street, Vine Street, and Mercedes Lane and an off-street path around the Town Center Lake. The project would connect to existing bicycle and pedestrian facilities in the Town Center. Project implementation would not alter, impede, or degrade existing bicycle and pedestrian facilities and a less than significant impact would occur.

Public Transit Service

Based on ridership data presented in the *El Dorado Hills Community Transit Needs Assessment and U.S. 50 Corridor Transit Operations Plan Final Report*, approximately 41,760 annual commute trips are made by El Dorado Hills residents using El Dorado Transit Commuter Service. Residents of El Dorado Hills account for about 72 percent of boardings at the El Dorado Hills Park-n-Ride Lot (located in the Town Center), which includes riders that park in the lot and riders that use other means to access the service (walk, bike, and drop-off).

Based on this information, about one annual commute trip is generated per El Dorado Hills resident, assuming a population of 42,100 (2010 Census) in El Dorado Hills. Therefore, the project's 214 dwelling units could result in demand of about 560 annual commute trips assuming a household population of 2.6 persons (Sacramento Area Council of Governments, SACSIM regional travel demand simulation model), or about 3 commute trips per weekday. The proposed project would not alter existing nearby bus stops or conflict with adopted plans or policies related to transit in the General Plan. The existing transit service is expected to accommodate the increased demand from the proposed project. Transit services would continue to be provided only during peak periods, and peak periods are the most likely times for residents of the proposed project to use transit. Therefore, the proposed project would have a less than significant impact on transit facilities and access.

Mitigation Measures: No mitigation measures are required.

4.8.4.5 Cumulative Impacts and Mitigation Measures

This section presents an evaluation of the proposed project's cumulative traffic impacts under near-term cumulative conditions (2027). As noted above, the near-term analysis is used by El Dorado County to determine compliance with General Plan Policy TC-Xa(3), which was created by the approval of Measure E by County voters in June 2016. The near-term cumulative analysis, which is not required by CEQA and

does not constitute an analysis of transportation impacts for CEQA purposes, represents conditions 10 years beyond the existing baseline. The near-term cumulative impact analysis is referred to as "Measure E analysis" in the TIA, presented in **Appendix 4.8** of this Draft EIR.

This section also presents traffic impacts under long-term cumulative conditions (2035) as required by CEQA. The long-term cumulative impact analysis is referred to as "Cumulative Impact analysis" in the TIA.

Cumulative Impact C-TRANS-1: **Development of the proposed project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the traffic circulation system under Near-Term Cumulative (2027) plus Project Conditions. (*Significant; Less than Significant with Mitigation*)**

The following summarizes traffic operations for study intersections and freeway facilities under near-term cumulative conditions without and with the addition of trips from the El Dorado Hills Town Center Apartments project.[4]

Near-Term No Project Operations

Intersections

Table 4.8-10, Intersection LOS and Delay – Near-Term Conditions, compares existing AM and PM peak hour intersection operations to near-term cumulative conditions.

Table 4.8-10
Intersection LOS and Delay—Near-Term Conditions

	Intersection	Control	Existing (LOS/Delay)		Near-Term (LOS/Delay)	
			AM	PM	AM	PM
1.	El Dorado Hills Boulevard/Saratoga Way/Park Drive	Signal	B / 19	C / 20	F / 108	D / 47
2.	El Dorado Hills Boulevard/US 50 WB Ramps	Signal	C / 31	C / 33	D / 44	D / 37
3.	Latrobe Road/US 50 EB Ramps	Signal	C / 33	C / 20	C / 20	B / 18
4.	Latrobe Road/Town Center Boulevard	Signal	B / 16	D / 50	C / 20	D / 47

4 *Although this section includes analysis of the private Town Center Boulevard/Post Street intersection for informational purposes, Policy TC-Xa(3) only applies to "highways, arterial roads and their intersections" and does not apply to private roads and their intersections. For this reason, the Town Center Boulevard/Post Street intersection is not subject to the requirements of this Measure E analysis.*

Intersection	Control	Existing (LOS/Delay) AM	Existing (LOS/Delay) PM	Near-Term (LOS/Delay) AM	Near-Term (LOS/Delay) PM
5. Latrobe Road/White Rock Road	Signal	C / 31	C / 27	C / 35	C / 33
6. White Rock Road/Winfield Way	Signal	C / 20	C / 22	B / 18	C / 25
7. White Rock Road/Post Street	Signal	B / 18	C / 27	C / 23	C / 30
8. White Rock Road/Vine Street /Valley View Parkway	Signal	C / 24	D / 46	B / 18	C / 27
9. Town Center Boulevard/Post Street[1]	AWSC	B / 13	E / 48	B / 15	F / 50
10. Silva Valley Parkway/US 50 WB Ramps	Signal	B / 11	A / 10	B / 11	B / 12
11. Silva Valley Parkway/US 50 EB Ramps	Signal	B / 10	B / 13	B / 12	B / 13

Source: Fehr & Peers, 2017
Notes: AWSC = all-way stop control
[1]The Town Center Boulevard/ Post Street intersection is private (i.e., not a County facility).
The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. For TWSC intersections, the LOS and control delay for the worst movement is shown. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (TRB, 2010). Intersections 6-11, were analyzed in Synchro 9. Intersections 1-5 were analyzed in SimTraffic.

As shown in **Table 4.8-10**, all relevant study intersections would continue to operate at LOS E or better, with the addition of 10 years of land use growth and the capital projects planned to begin construction in 10 years, except for the El Dorado Hills Boulevard/Saratoga Way/Park Drive intersection, which will operate unacceptably at LOS F during the AM peak hour.

The private Town Center Boulevard/Post Street intersection would operate at LOS F under near-term cumulative without project conditions. However, Policy TC-Xa(3) only applies to "highways, arterial roads and their intersections" and does not apply to private roads and their intersections.

Freeways

Table 4.8-11, Freeway Facility Peak Hour Level of Service – Near-Term Conditions, compares existing AM and PM peak hour freeway operations to near-term cumulative conditions.

Table 4.8-11
Freeway Facility Peak Hour Level of Service – Near-Term Conditions

Freeway	Segment	Facility Type	Existing Density[1] / LOS AM	Existing Density[1] / LOS PM	Near-Term Density[1] / LOS AM	Near-Term Density[1] / LOS PM
US 50 EB	Latrobe Road off-ramp	Diverge	22 / C	30 / D	22 / C	27 / C

Freeway	Segment	Facility Type	Existing Density[1] / LOS AM	Existing Density[1] / LOS PM	Near-Term Density[1] / LOS AM	Near-Term Density[1] / LOS PM
US 50 WB	El Dorado Hills Boulevard off-ramp	Diverge	14 / B	26 / C	13 / B	23 / C
	El Dorado Hills Boulevard on-ramp to Silva Valley Parkway off-ramp	Weave (HCM)[2]	10 / A	23 / C	11 / B	23 / C
		Basic	7 / A	15 / B	7 / A	14 / B
	Silva Valley Parkway on-ramp (loop)	Merge	11 / B	21 / C	15 / B	20 / C
	Silva Valley Parkway on-ramp to Bass Lake Road off-ramp	Basic	11 / A	20 / C	14 / B	19 / C
	Bass Lake Road off-ramp	Diverge	15 / B	25 / C	18 / B	25 / C
	Bass Lake Road on-ramp	Merge	32 / D	21 / C	33 / D	27 / C
	Bass Lake Road on-ramp to lane addition	Basic	29 / D	17 / B	30 / D	24 / C
	Lane addition to Silva Valley Parkway off-ramp	Basic	19 / C	12 / B	19 / C	16 / B
	Silva Valley Parkway off-ramp	Diverge	13 / B	5 / A	14 / B	11 / B
	Silva Valley Parkway on-ramp to El Dorado Hills Boulevard off-ramp	Weave (HCM)[2]	34 / D	18 / B	36 / E	21 / C
		Basic	19 / C	11 / A	19 / C	13 / B
	El Dorado Hills Boulevard on-ramp	Merge	34 / D	24 / C	34 / D	24 / C

Source: Fehr & Peers, 2017
Notes:
[1]Density reported as passenger cars per mile per pane. Density is not reported for LOS F operations.
[2] This weave section lies outside the realm of weaving using the Leisch Method. As a result, it is analyzed as a basic segment.

As shown in **Table 4.8-11**, all freeway facilities would continue to operate at LOS E or better, with the addition of 10 years of land use growth and the capital projects planned to begin construction in 10 years.

Near Term Plus Project Operations

The following summarizes intersection and freeway operations under near-term cumulative conditions with the addition of project traffic, and demonstrates compliance with General Plan Policy TC-Xa(3) at all relevant intersections and freeway facilities.

Intersections

Table 4.8-12, Intersection LOS and Delay—Near-Term Plus Project Conditions, compares AM and PM peak hour intersection operations under near-term cumulative conditions without and with the proposed project.

Table 4.8-12
Intersection LOS and Delay—Near-Term Plus Project Conditions

Intersection	Control	Near-Term (LOS/Delay)		Near-Term Plus Project (LOS/Delay)	
		AM	PM	AM	PM
1. El Dorado Hills Boulevard/Saratoga Way/Park Drive	Signal	F / 108	D / 47	F / 125	D / 43
2. El Dorado Hills Boulevard/US 50 WB Ramps	Signal	D / 44	D / 37	D / 48	D / 40
3. Latrobe Road/US 50 EB Ramps	Signal	B / 20	B / 18	C / 20	B/ 15
4. Latrobe Road/Town Center Boulevard	Signal	C / 20	D / 47	C / 21	D / 51
5. Latrobe Road/White Rock Road	Signal	C / 35	C / 33	D / 36	C / 33
6. White Rock Road/Winfield Way	Signal	B / 18	C / 25	B / 18	C / 25
7. White Rock Road/Post Street	Signal	C / 23	C / 30	C / 23	C / 30
8. White Rock Road/Vine Street /Valley View Parkway	Signal	B / 18	C / 27	B / 20	C / 29
9. Town Center Boulevard/Post Street[1]	AWSC	B / 15	F / 50	C / 17	F / 52
10. Silva Valley Parkway/US 50 WB Ramps	Signal	B / 11	B / 12	B / 11	B / 12
11. Silva Valley Parkway/US 50 EB Ramps	Signal	B / 12	B / 13	B / 12	B / 13

Source: Fehr & Peers, 2017
Notes: AWSC = all-way stop control
[1]The Town Center Boulevard/ Post Street intersection is private (i.e., not a County facility).
The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. For TWSC intersections, the LOS and control delay for the worst movement is shown. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (TRB, 2010). Intersections 6-11, were analyzed in Synchro 9. Intersections 1-5 were analyzed in SimTraffic.

As shown in **Table 4.8-12**, with the exception of one County-owned intersection and one private intersection outside of County jurisdiction, all study intersections would continue to operate at LOS E or better, with the addition of project trips under near-term cumulative conditions.

El Dorado Hills Boulevard/Saratoga Way/Park Drive Intersection

The intersection of El Dorado Hills Boulevard/Saratoga Way/Park Drive would operate at LOS F prior to the addition of project traffic. Project traffic would worsen intersection operations (by adding more than 10 peak hour trips), resulting in a potentially significant impact at this location.

The operations at this intersection can be improved to meet the County LOS standards by adding a southbound right turn lane. This intersection improvement is included in the Saratoga Way Extension Phase 2 project (CIP # GP147), which is a project that is included in the County's CIP. Additionally, the County's annual Intersection Needs Prioritization Process will identify if the intersection triggers a LOS impact prior to 2035. Should the LOS become unacceptable, the potential intersection improvements can be added, by the Board of Supervisors, to the CIP as funding becomes available.

As the proposed project is not a single-family residential subdivision, the second paragraph under Policy TC-Xf is the guiding policy for mitigation of this project's impact. Therefore, payment of Traffic Impact Mitigation (TIM) fees will satisfy the project's fair share portion of the improvement project. **Mitigation Measure C-TRANS-1** is set forth below to ensure that the project will pay TIM fees to mitigate its impact at this intersection.

Town Center Boulevard/Post Street Intersection

The private Town Center Boulevard/Post Street intersection would operate at LOS F without or with the proposed project during the PM peak hour. However, as noted above, Measure E analysis applies to County "highways, arterial roads and their intersections" and does not apply to private roads and their intersections. For this reason, the LOS conditions at this intersection with and without the proposed project are reported in this Draft EIR for information only. The County is not required to draw a conclusion with respect to the significance of the impact at this location.

Freeways

Table 4.8-13, Freeway Facility Peak Hour Level of Service—Near-term Conditions, compares AM and PM peak hour freeway operations under near-term cumulative conditions without and with the proposed project.

Table 4.8-13
Freeway Facility Peak Hour Level of Service—Near-term Conditions

Freeway	Segment/Ramp	Facility Type	Existing Density[1] / LOS AM	Existing Density[1] / LOS PM	Near-Term Density[1] / LOS AM	Near-Term Density[1] / LOS PM
U.S. 50 EB	Latrobe Road off-ramp	Diverge	22 / C	27 / C	22 / C	27 / C
	El Dorado Hills Boulevard off-ramp	Diverge	13 / B	23 / C	13 / B	23 / C
	El Dorado Hills Boulevard on-ramp to Silva Valley Parkway off-ramp	Weave (HCM)[2]	11 / B	23 / C	11 / B	23 / C
		Basic	7 / A	14 / B	7 / A	14 / B
	Silva Valley Parkway on-ramp (loop)	Merge	15 / B	20 / C	15 / B	20 / B
	Silva Valley Parkway on-ramp to Bass Lake Road off-ramp	Basic	14 / B	19 / C	14 / B	19 / C
	Bass Lake Road off-ramp	Diverge	18 / B	25 / C	18 / B	25 / C
	Bass Lake Road on-ramp	Merge	33 / D	27 / C	33 / D	27 / C
	Bass Lake Road on-ramp to lane addition	Basic	30 / D	24 / C	30 / D	24 / C
	Lane addition to Silva Valley Parkway off-ramp	Basic	19 / C	16 / B	19 / C	16 / B
U.S. 50 WB	Silva Valley Parkway off-ramp	Diverge	14 / B	11 / B	14 / B	11 / B
	Silva Valley Parkway on-ramp to El Dorado Hills Boulevard off-ramp	Weave (HCM)[2]	36 / E	21 / C	36 / E	21 / C
		Basic	19 / C	13 / B	19 / C	13 / B
	El Dorado Hills Boulevard on-ramp	Merge	34 / D	24 / C	34 / D	24 / C

Source: Fehr & Peers, 2017
Notes:
[1] Density reported as passenger cars per mile per pane. Density is not reported for LOS F operations.
[2] This weave section lies outside the realm of weaving using the Leisch Method. As a result, it is analyzed as a basic segment.

As shown in **Table 4.8-13**, all freeway facilities would continue to operate at LOS E or better, with the addition of project trips and a less than significant impact would occur.

Mitigation Measures:

C-TRANS-1 The project applicant will pay TIM fees to the County prior to issuance of building permit(s).

Significance after Mitigation: Payment of TIM fees will satisfy the project's fair share portion of the improvement project identified for the affected intersection. The impact would be reduced to a less than significant level.

Cumulative Impact C-TRANS-2: **Development of the proposed project would not conflict with applicable policies establishing measures of effectiveness for the performance of the local roadway system and regional freeway system under Long-Term Cumulative (2035) plus Project Conditions. (*Less than Significant*)**

Future year 2035 cumulative traffic volumes were developed in order to assess the cumulative traffic impacts of the proposed project. The long-term cumulative no project scenario corresponds to a 2035 cumulative horizon that accounts for reasonably foreseeable development projects, transportation improvements, and land use growth consistent with the 2004 General Plan.

Foreseeable Development Projects

The following development projects were included in projecting the traffic levels that would exist in the study area under 2035 conditions.

- Bass Lake Hills Specific Plan
- Carson Creek Specific Plan
- Central El Dorado Hills Specific Plan
- Dixon Ranch
- Promontory
- Lime Rock Valley Specific Plan
- Marble Valley Master Plan
- Saratoga Estates (Rancho Dorado)
- Ridgeview
- Serrano
- Tilden Park
- Valley View Specific Plan
- Mill Creek (San Stino) Residential Project

Capacity-Enhancing Roadway Improvements

The roadway improvements listed in **Table 4.8-14, Capacity-Enhancing Roadway Improvements (Anticipated Completion by 2035),** below were assumed to be completed and in place by 2035.

Table 4.8-14
Capacity–Enhancing Roadway Improvements (Anticipated Completion by 2035)

Project Name	Project Description	Estimated Completion
Country Club Drive – El Dorado Hills Boulevard to Silva Valley Parkway	Construct new 2-lane road Country Club Drive from El Dorado Hills Boulevard to Silva Valley Pkwy. Work includes curb, gutter, and sidewalk on both sides of the roadway. CIP#72377	By 2035
Country Club Drive – Silva Valley Parkway to Tong Road	Construct new 2-lane road Country Club Drive from Silva Valley Parkway to Tong Road. Work includes curb, gutter, and sidewalk on both sides of the roadway. CIP#71362	By 2027
Country Club Drive Extension – Tong Road to Bass Lake Road	Construct 2-lane extension of Country Club Drive from Tong Road to Bass Lake Road, with 8-foot paved shoulder, curb and gutter, and new intersection at Bass Lake Road. CIP#71361	By 2027
Country Club Drive Realignment -Bass Lake Road to Tierra De Dios Drive	Realign Country Club Drive from Bass Lake Road/Old Bass Lake Road to Tierra de Dios Drive. Work includes constructing a 2-lane road with 8-foot paved shoulders, sidewalk, curb and gutter. CIP#71360	By 2019
Green Valley Road Widening - Francisco to Silva Valley Parkway	Widen Green Valley Road from Francisco Dr to Silva Valley Parkway to 4-lanes with curb, gutter, and sidewalk. CIP#GP178	By 2035
Green Valley Road Widening - County Line to Sophia Parkway	Widen Green Valley Road from County line to Sophia Parkway from 2 to 4 lanes. CIP#72376	By 2018
Latrobe Connection	The project consists of intersection improvements at Golden Foothill Pkwy (south) and Carson Crossing Dr. CIP#66116	By 2027
Saratoga Way Ext - Phase 1	Construct new 4-lane arterial to extend Saratoga Way from Wilson Boulevard to Sacramento County line and a 2-lane arterial from Wilson Boulevard to the current terminus near Finders Way; includes median, 6-ft shoulders, two-way left-turn pocket from Finders Way to Arrowhead, asphalt path, drainage system, environmental clearance and secure ROW for future 4-lane road from County Line to El Dorado Hills Boulevard. CIP#71324 (Phase 2 CIP#GP147 - See ELD19234 in MTP)	By 2019
Saratoga Way (Phase 2)	Widen 4 lanes from the Wilson Boulevard to El Dorado Hills Boulevard Includes: full curb, gutter, and sidewalk on the north side. (See ELD16010 for Phase 1) CIP#GP147	By 2035
Silva Valley Parkway/Serrano Parkway Traffic Circulation Improvement	Project includes traffic signal modification and lane re-striping at the Silva Valley Parkway/Serrano Parkway intersection, installation of an all-way stop at Serrano Parkway/Village Green intersection, and installation of left-turn prohibition signs at Silva Valley Parkway/Entrada intersection and Oak Meadow School driveway at Silva Valley Parkway. This project will be coordinated with the U.S. 50/Silva Valley Parkway Freeway Interchange (CIP#71328). CIP#72141	Completed

Project Name	Project Description	Estimated Completion
Silver Springs Parkway to Bass Lake Road (South Segment)	Realign Bass Lake Road south of Green Valley Road through the proposed Silver Springs subdivision, which is west of the existing Bass Lake Road. The new road is named Silver Springs Parkway. That development is responsible for building Silver Springs Parkway through their development. Silver Springs Parkway will be a 2-lane standard divided roadway with shoulders. CIP#76108	By 2020
U.S. 50 Aux Lane WB - El Dorado Hills Boulevard to Sacramento County Line	Widen U.S. 50 and add auxiliary lane to westbound U.S. 50 from the El Dorado Hills Blvd/Latrobe Road Interchange to the County Line. CIP#53115	By 2035
U.S. 50 Auxiliary Lane Westbound - Ponderosa Road to Cameron Park Drive	Widen U.S. 50 and add an auxiliary lane to westbound U.S. 50, connecting Cameron Park Drive Interchange to Ponderosa Road Interchange. CIP#53128	By 2035
U.S. 50 Auxiliary Lane Westbound – Bass Lake Road to Silva Valley Parkway	Widen U.S. 50 to add an auxiliary lane to westbound U.S. 50 connecting the Bass Lake Road Interchange and Silva Valley Parkway Interchange. Timing of construction to be concurrent with or after the Bass Lake Road Interchange improvement. CIP#53117	By 2027
U.S. 50 Auxiliary Lane Westbound – Cambridge Road to Bass Lake Road	Widen U.S. 50 to add an auxiliary lane to westbound U.S. 50 connecting the Cambridge Road Interchange to Bass Lake Road Interchange. Timing of construction to be concurrent with or after the Bass Lake Road Interchange improvement. CIP GP149	By 2035
U.S. 50 Auxiliary Lane Eastbound – Bass Lake Road to Cambridge Road	Widen U.S. 50 and add eastbound auxiliary lane between Bass Lake Road Interchange and Cambridge Road Interchange. Timing of construction to be concurrent with or after the Bass Lake Road Interchange improvements. CIP #GP148	By 2035
U.S. 50 Auxiliary Lane Eastbound – Cambridge Road to Cameron Park Drive	Widen U.S. 50 and add eastbound auxiliary lane between Cambridge Road Interchange and Cameron Park Drive Interchange. Timing of construction to be concurrent with or after the Cambridge Road Interchange improvements. CIP #53126	By 2035
U.S. 50 Auxiliary Lane Eastbound – Cameron Park Drive to Ponderosa Road	Widen U.S. 50 and add eastbound continuous auxiliary lane from Cameron Park Drive Interchange to Ponderosa Road Interchange as determined necessary in the U.S. 50/Cameron Park Drive PSR/PDS dated October 2008. CIP# 53127	By 2035
U.S. 50 Auxiliary Lane Eastbound – Sacramento County Line to El Dorado Hills Boulevard/Latrobe Road Interchange	Widen U.S. 50 and add eastbound auxiliary lane from the County Line to U.S. 50 El Dorado Hills Boulevard/Latrobe Road Interchange. Timing of construction to be concurrent with El Dorado Hills Boulevard Interchange or Empire Ranch Interchange. CIP #53125	By 2035
U.S. 50 / Bass Lake Road Interchange Improvements	Phase 1 of a larger project for the complete reconstruction of the Bass Lake Road interchange. Phase 1 of the project includes a detailed study to determine the complete improvements needed. Phase 1 is assumed to	By 2035

Project Name	Project Description	Estimated Completion
	include ramp widenings, road widening, signals, and bridge replacement. CIP#71330	
U.S. 50 / Cambridge Road Interchange Improvements	Phase 1 improvements to Cambridge Road interchange consists of widening the existing EB and WB off-ramps; addition of new WB on-ramp from SB Cambridge Road; reconstruction of the local intersections to provide for additional capacity, both turning and through lanes; and the installation of traffic signals at the EB ramp-terminal intersection. Also preliminary engineering for Phase 2 improvements to the Cambridge Interchange. CIP#71332	By 2035
U.S. 50 / Cameron Park Dr. Interchange Improvements	This project includes detailed study to identify capacity improvement alternatives and selection of preferred alternative; assumes reconstruction of U.S. 50 bridges to widen Cameron Park Dr to 8 lanes under the overcrossing; road and ramp widening. CIP#72361	By 2035
U.S. 50 / El Dorado Hills Boulevard Interchange Improvements – (Phase 2B)	Reconstruct eastbound diagonal on-ramp and eastbound loop off-ramp for the ultimate configuration; add a lane to northbound El Dorado Hills Blvd under the overpass (eliminates merge lane and improves traffic flow from the eastbound loop off-ramp); eastbound diagonal on-ramp will be metered and have an HOV bypass. Project split from ELD15630 (CIP#71323).	By 2028
U.S. 50 / Silva Valley Pkwy Interchange - Phase 1	New Interchange: Phase 1 includes U.S. 50 on-/off-ramps, overcrossing, and U.S. 50 aux lanes. (See ELD19291/CIP#71345 for Phase 2). CIP#71328	Completed
U.S. 50 / Silva Valley Pkwy Interchange - Phase 2 – On-Ramps and Auxiliary Lanes on U.S. 50 (Connector Segment)	Final phase of new interchange: construction of eastbound diagonal and westbound loop on-ramps to U.S. 50. CIP#71345	By 2035
White Rock Road Widening -Manchester to Sacramento County Line (Connector Segment)	Widen White Rock Road from 2 to 4 lanes, divided, from Manchester Dr west to Sacramento County Line. CIP#GP137	By 2027
White Rock Road Widening – Monte Verde to U.S. 50 / Silva Valley Parkway Interchange (Connector Segment)	Widen White Rock Road from 2 lanes undivided to 4 lanes divided, from Monte Verde Dr east to new future U.S. 50/Silva Valley Pkwy Interchange (ELD15610/CIP71328); includes curb, gutter, sidewalk, and Class II bike lanes. CIP#72374	By 2035

Source: El Dorado County's Adopted 2016 Capital Improvement Program, December 6, 2016.

Bicycle and Pedestrian Facility Improvement Projects

The following bicycle and pedestrian improvement projects were included in the evaluation of conditions that would exist in the study area by 2035.

- El Dorado Hills Class I bike path - SMUD Corridor: Design and construct a Class I bike path between El Dorado Hills Boulevard and Silva Valley Parkway within the powerline easement operated by the Sacramento Municipal Utility District (SMUD). A portion of this project has been constructed between Silva Valley and New York Creek.
- Latrobe Road Class II bike lanes from Investment Boulevard to Deer Creek/SPTC
- Old Bass Lake Road – El Dorado Hills Boulevard to Bass Lake Road Connection, Phase 1: Use existing roadway as Class I path from Tong Road to Old Bass Lake Road
- Saratoga Way Extension Class II bike lanes included in extension of Saratoga Way from Finders Way to County Line. Bass Lake Road Class II bike lanes from Green Valley Road to U.S. 50
- Bike path parallel to U.S. 50 on the north side – El Dorado Hills Boulevard to Bass Lake Road
- Connection, Phase 2: Connect Silva Valley Road to El Dorado Hills Village Center Shopping Center
- El Dorado Hills Boulevard bike lanes, Phase 1: Saratoga Way to Governor Drive/Street Andrews
- El Dorado Hills Boulevard bike path, Phase 2: Utilizing an existing golf cart undercrossing of Serrano
- El Dorado Hills Boulevard Class I Bike Path: Governor Drive to Brittany Place
- Parkway, extend the bike path from the current terminus at Serrano Parkway to Raley's Center
- El Dorado Hills Boulevard to Bass Lake Connection, Phase 1; Class III bike route on Tong Road, Class III bike route on Old Bass Lake Road
- Green Valley Road Class II bike lanes from Francisco Drive to Pleasant Grove Middle School
- Harvard Way bike path from Clermont Road to El Dorado Hills Boulevard
- Silva Valley Parkway bike lanes from the new connection with the old Silva Valley Parkway to Green Valley Road
- SPTC/El Dorado Trail Class I bike path from Latrobe Road to County Line

Impacts at Study Intersections

Intersection levels of service under long-term cumulative no project and cumulative plus project conditions were calculated and are shown in **Table 4.8-15, Long-Term Cumulative Conditions – Study Intersection LOS Summary**.

Table 4.8-15
Long-Term Cumulative Conditions – Study Intersection LOS Summary

Intersection	Intersection Control	Peak Hour	Cumulative No Project Conditions		Cumulative Plus Project Conditions	
			Avg Delay[2]	LOS[4]	Avg Delay[2]	LOS[4]
1. El Dorado Hills Boulevard/Park Drive/Saratoga Way	Signal	AM	37	D	37	D
		PM	48	D	50	D
2. El Dorado Hills Boulevard/U.S. 50 WB Ramps	Signal	AM	34	C	47	D
		PM	48	D	49	D
3. Latrobe Road/U.S. 50 EB Ramps	Signal	AM	34	C	54	D
		PM	22	C	18	B
4. Latrobe Road/Town Center Boulevard	Signal	AM	36	D	42	D
		PM	66	E	76	E
5. Latrobe Road/White Rock Road	Signal	AM	60	E	67	E
		PM	51	D	80	E
6. White Rock Road/Winfield Way	Signal	AM	12	B	12	B
		PM	35	D	36	D
7. White Rock Road/Post Street	Signal	AM	15	B	15	B
		PM	17	B	18	B
8. White Rock Road/Vine Street/Valley View Drive	Signal	AM	20	B	19	B
		PM	29	C	31	C
9. Town Center Boulevard/Post Street[1]	AWSC	AM	13	B	14	B
		PM	73	F	82	F
10. Silva Valley Parkway/U.S. 50 WB Ramps	Signal	AM	10	A	10	A
		PM	20	C	20	C
11. Silva Valley Parkway/U.S. 50 EB Ramps	Signal	AM	3	A	3	A
		PM	11	B	11	B

Source: Fehr & Peers, 2017.
Notes: AWSC = all-way stop control
[1]The Town Center Boulevard/ Post Street intersection is private (i.e., not a County facility).
[2]The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. For side-street stop controlled intersections, the LOS and control delay for the worst movement is shown. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (TRB, 2010). Intersections 6-11 were analyzed in Synchro 9. Intersections 1-5 were analyzed in SimTraffic.

As shown in **Table 4.8-15**, all County-owned study intersections would operate at an acceptable level (LOS E or better) under long-term cumulative plus project conditions, and the impact of the project under long-term cumulative conditions would be less than significant.

Town Center Boulevard/Post Street Intersection

As the table above indicates, the intersection of Town Center Boulevard/Post Street (Intersection 9) would operate at LOS F during the PM peak hour both with and without the proposed project. The proposed project would add approximately 70 trips during the PM peak hour, and thereby contribute to the congestion at this location. As noted above, this is an internal (i.e., private) intersection in the Town Center (TC) development and, as a private facility, it is not subject to the County's thresholds of significance.[5] In the absence of a threshold of significance, a determination of the significance of the project's impact at this location cannot be made by the County. Furthermore, any improvements that would be made at this location to relieve congestion are not under the County's jurisdiction.

The above notwithstanding, the project applicant and the owner of the right-of-way (ROW) of the Town Center Boulevard/Post Street intersection have voluntarily agreed to mitigate this impact below the County's threshold of significance applicable to County-owned facilities. The project applicant has confirmed that the installation of a traffic signal at this currently unsignalized intersection is feasible, which will improve LOS operations from LOS F to LOS E. Peak hour intersection analysis will be conducted every 2 years and a traffic signal will be installed at this location when the traffic signal reaches LOS F and applicable traffic signal warrants are satisfied. In addition, the new traffic signal would need to be interconnected with the County-owned traffic signal at Latrobe Road/Town Center Boulevard intersection. The installation of the interconnection would require an encroachment permit from the County, and the maintenance of the interconnection between the two traffic signals would be subject to an encroachment agreement with the County. **Mitigation Measure C-TRANS-2** below assures that these actions will be taken at the time mitigation is required.

Impacts on Freeway Segments and Ramps

The capacity-increasing projects from the County's Capital Improvement Program (CIP), which are documented in **Table 4.8-14** above, include many projects that would add capacity to U.S. 50, increase

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5 Separately, increased traffic contained within a private development is generally not considered an adverse impact on the environment under CEQA. (*See, e.g., Walters v. City of Redondo Beach* (2016) 1 Cal.App.5th 809 ("The Guidelines and case law clarify that traffic impacts for CEQA purposes relate to the flow of vehicles in public spaces."); *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 782 ["In general, CEQA does not regulate environmental changes that do not affect the public at large"].)

east/west parallel capacity, and add new interchange connections to U.S. 50. The following lists some of the more significant transportation improvements in the U.S. 50 corridor:

Interchange Projects

- U.S. 50/Silva Valley Parkway Interchange (new connection to U.S. 50)
- U.S. 50/Empire Ranch Road Interchange (new connection to U.S. 50)
- U.S. 50/Bass Lake Road Interchange Upgrade
- U.S. 50/Cambridge Road Interchange Upgrade

Mainline Projects

- Westbound U.S. 50 interchange-to-interchange auxiliary lane (Bass Lake Road to Silva Valley Parkway)
- Westbound U.S. 50 auxiliary lane (Silva Valley Parkway to Empire Ranch Road)
- Eastbound U.S. 50 auxiliary lane (Silva Valley Parkway to Empire Ranch Road)
- Westbound U.S. 50 interchange-to-interchange auxiliary lane (Silva Valley Parkway to El Dorado Hills Boulevard)
- Eastbound U.S. 50 interchange-to-interchange auxiliary lane (El Dorado Hills Boulevard to Silva Valley Parkway)
- Westbound U.S. 50 interchange-to-interchange auxiliary lane (Cambridge Drive to Bass Lake Road)
- Eastbound U.S. 50 interchange-to-interchange auxiliary lane (Bass Lake Road to Cambridge Drive)

Arterial Roadway Projects

- Country Club Drive Extension from Bass Lake Road to El Dorado Hills Boulevard
- Saratoga Way Extension from El Dorado Hills Boulevard to Iron Point Road
- Extension of Empire Ranch Road from U.S. 50 to White Rock Road
- Latrobe Road Connector (new roadway between Latrobe Road and White Rock Road)

Freeway segment levels of service under long-term cumulative plus project conditions were calculated and are presented in **Table 4.8-16, Long-Term Cumulative Conditions - Study Freeway Facilities LOS Summary**. A comparison of traffic operations on U.S. 50 between cumulative no project and cumulative

plus project conditions with respect to density and resulting LOS are provided to assess cumulative impacts.

Table 4.8-16
Long-Term Cumulative Conditions – Study Freeway Facilities LOS Summary

Segment/Ramp	Facility Type	Peak Hour[1]	Cumulative No Project Conditions		Cumulative Plus Project Conditions	
			Density[1]	LOS	Density[1]	LOS
Eastbound						
Latrobe Road off-ramp	Diverge	AM	28	D	28	D
		PM	33	D	34	D
El Dorado Hills Boulevard off-ramp	Diverge	AM	21	C	21	C
		PM	30	D	30	D
El Dorado Hills Boulevard on-ramp to Silva Valley Parkway off-ramp	Weave (HCM)	AM	20	B	20	B
		PM	29	D	29	D
	Weave (Leisch)	AM	-	-	-	-
		PM	-	-	-	-
	Basic	AM	13	B	13	B
		PM	19	C	19	C
Silva Valley Parkway on-ramp (loop)	Merge	AM	18	B	18	B
		PM	24	C	24	C
Silva Valley Parkway slip-on ramp	Merge	AM	22	C	23	C
		PM	30	D	30	D
Silva Valley Parkway on-ramp to Bass Lake Road off-ramp	Basic	AM	21	C	21	C
		PM	27	D	27	D
Westbound						
Bass Lake Road on-ramp to Silva Valley Parkway off-ramp	Weave (HCM)	AM	27	D	*27*	D
		PM	24	C	*24*	C
	Weave (Leisch)	AM	-	-	-	-
		PM	-	-	-	-
	Basic	AM	27	D	*27*	D
		PM	24	C	*24*	C
Silva Valley Parkway loop on-ramp	Merge	AM	15	B	15	B
		PM	13	B	13	B
Silva Valley Parkway slip-on ramp to El Dorado Hills Boulevard off-ramp	Weave (HCM)	AM	33	D	33	D
		PM	22	C	22	C
	Weave (Leisch)	AM	-	-	-	-
		PM	-	-	-	-
	Basic	AM	-	-	-	-
		PM	14	B	14	B

Segment/Ramp	Facility Type	Peak Hour[1]	Cumulative No Project Conditions		Cumulative Plus Project Conditions	
			Density[1]	LOS	Density[1]	LOS
El Dorado Hills Boulevard on-ramp to Empire Ranch Road off-ramp	Weave (HCM)	AM	41	E	41	E
		PM	33	D	33	D
	Weave (Leisch)	AM	-	D	-	D
		PM	-	C	-	C
	Basic	AM	-	-	-	-
		PM	-	-	-	-

Source: Fehr & Peers, 2017.
Notes:
[1] Density reported as passenger cars per mile per pane. Density is not reported for LOS F operations or weave segments. Weave segment's operations are based on the HCM 2010 and Leisch Method. If the weave segment is outside the realm of weaving it is analyzed as a basic segment.

As shown in **Table 4.8-16,** all study freeway facilities would operate acceptably at LOS E or better under cumulative no project conditions. Under cumulative plus project conditions, all freeway facilities during the AM and PM peak hours would continue to operate at acceptable levels of service LOS E or better. Therefore, the proposed project would not make a cumulatively considerable contribution to cumulative level of service impacts on study freeway segments and ramps.

Mitigation Measures:

C-TRANS-2 The project applicant shall be responsible for ensuring that a traffic signal is installed at the private intersection of Post Street and Town Center Boulevard, and that a funding mechanism is created for maintenance of that signal. Peak hour intersection signal warrant analysis will be performed, consistent with the methodologies presented in the County's Transportation Impact Study Guidelines, at 24-month intervals and provided to the County, and the signal will be installed when the intersection operations reach LOS F and applicable traffic signal warrants are satisfied. The new traffic signal will be interconnected or subordinate to the traffic signal at Latrobe Road/El Dorado Hills Boulevard, subject to an encroachment permit and agreement. Prior to issuance of a grading permit for project construction, the project applicant shall demonstrate to the County's satisfaction that it has obtained legally binding authority to assure implementation of this mitigation measure, via an agreement with the owner of the right-of-way encompassing the Post Street/Town Center Boulevard intersection or otherwise.

Significance after Mitigation: As this is a private intersection, the County's significance threshold does not apply and the potential impact is not subject to CEQA. However, implementation of this mitigation

measure will reduce the potential impact to an acceptable level within the County's significance threshold (LOS E) that would be applicable if this were a County intersection.

Cumulative Impact C-TRANS-3: **Development of the proposed project, in combination with reasonably foreseeable future developments, would not cause a substantial conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.** ***(Less than Significant)***

The proposed project, in conjunction with other reasonably foreseeable future development in the project vicinity, would increase the demand for pedestrian and bicycle facilities. The project is located in the El Dorado Hills Town Center, which is a mixed-use development. Placing the project near jobs and service would encourage walking and bicycling for trips that would ordinarily be made by auto if the project were located in a more remote location further from jobs and services. Furthermore, the project would connect to existing bicycle and pedestrian facilities in the Town Center and would be located near the planned pedestrian overcrossing of U.S. 50 (just east of the El Dorado Hills Interchange). As the area is adequately served by pedestrian and bicycle facilities, a less than significant cumulative impact to pedestrian and bicycle facilities would occur.

Mitigation Measures: No mitigation measures are required.

Cumulative Impact C-TRANS-4: **Development of the proposed project, in combination with reasonably foreseeable future developments, would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of mass transit.** ***(Less than Significant)***

Based on ridership data presented in the *El Dorado Hills Community Transit Needs Assessment* and *U.S. 50 Corridor Transit Operations Plan Final Report*, about 41,760 annual commute trips are made by El Dorado Hills residents using El Dorado Transit Commuter Service. Residents of El Dorado Hills account for about 72 percent of boardings at the El Dorado Hills Park-n-Ride Lot (located in Town Center), which includes riders that park in the lot and riders that use other means to access the service (walk, bike, and

drop-off). Based on this information, about one annual commute trip is generated per El Dorado Hills resident, assuming a population of 42,100 (2010 Census) in El Dorado Hills

Therefore, the project's 214 dwelling units could result in demand of about 560 annual commute trips assuming a household population of 2.6 persons (Sacramento Area Council of Governments, SACSIM regional travel demand simulation model), or about 3 commute trips per weekday. Implementation of the proposed project would increase transit demand. As mentioned above, the project could result in demand for about 560 annual commute trips or about 3 commute trips per weekday. This increase represents less than a two percent increase in El Dorado Transit Commuter Service, which is generally in line with historic population growth rates in El Dorado County. Consequently, the growth in these trips would not likely exceed the ability to serve this ridership growth through existing funding sources for transit that are tied to population growth. Project residents accessing the El Dorado Transit Commuter Service would likely walk to the El Dorado Hills Park-n-Ride Lot. Consequently, implementation of the proposed project would not likely increase demand for the El Dorado Hills Park-n-Ride Lot, which operates at capacity. Thus, cumulative impacts to transit would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.8.5 REFERENCES

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