

4.10 TRANSPORTATION AND TRAFFIC

This chapter analyzes the potential impacts of the proposed project in relation to the surrounding transportation system including roadways, freeways, bicycle/pedestrian facilities, and transit facilities. This chapter is based upon the Traffic Impact Study, dated November 2, 2018 and prepared by Kimley-Horn, and is included in Appendix K of this EIR.

The County received multiple transportation-related comments regarding the NOP. These comments pertained to potential project effects on nearby intersections and subsequent traffic safety and emergency vehicle access. To the extent these comments related to the project's potential effects on transportation, they are evaluated in this chapter. Additionally, the City of Roseville commented that the project would generate less than the City's threshold of 50 trips during the PM Peak Hour to warrant a "long-term" traffic study and the City has no concerns regarding traffic generation from the project.

4.10.1 ENVIRONMENTAL SETTING

The environmental setting describes the existing condition of the roadway, bicycle, pedestrian, and transit networks. The community of Granite Bay is located in Placer County, approximately 22 miles northeast of downtown Sacramento, between the City of Roseville and Folsom Lake. Regional traffic passes through the area via Interstate 80 (I-80) in Roseville. State Route (SR) 65 in Roseville provides access to SR 70 and Yuba City/Marysville to the northwest. The proposed project site is located on the western edge of Granite Bay in the unincorporated island of Placer County, adjacent to City of Roseville streets and land. The project site is on the west side of Sierra College Boulevard, at the intersection of Old Auburn Road.

ROADWAY NETWORK

Roadways that currently provide primary traffic circulation within the immediate vicinity of the project site are as follows:

Sierra College Boulevard

Sierra College Boulevard is generally a four-lane major arterial/thoroughfare that extends north-south from the Sacramento / Placer County border to the Lincoln Newcastle Highway (SR 193) in Placer County, spanning multiple public jurisdictions. Sierra College Boulevard forms a full-access interchange with I-80 in the City of Rocklin and provides north-south connectivity between the communities of Roseville, Rocklin, Granite Bay, Loomis, and Lincoln. For the segment that runs through the project vicinity, Sierra College Boulevard is a four-lane divided arterial roadway with

a wide median and a posted speed limit of 45 miles per hour. To the south, Sierra College Boulevard extends into Sacramento County as Hazel Avenue, which extends southward to form a full-access interchange with US Route 50 (US 50) near the City of Rancho Cordova. The City of Roseville has jurisdiction over the section of Sierra College Boulevard adjacent to the project site.

Old Auburn Road

Old Auburn Road is a two-lane minor arterial that begins at the intersection of Sylvan Road and Auburn Boulevard in Citrus Heights and extends in a general northeast-southwest direction until reaching East Roseville Parkway southwest of Granite Bay. Old Auburn Road serves traffic in and around northern Citrus Heights, southeastern Roseville and Granite Bay. The intersection of Old Auburn Road and Sierra College Boulevard is adjacent to the project site and is within the City of Roseville's jurisdiction.

East Roseville Parkway

East Roseville Parkway is generally a two to six-lane major arterial roadway that extends southeast-northwest from the intersection of Roseville Parkway/Taylor Road in East Roseville, to Barton Road in Granite Bay. East Roseville Parkway connects and serves traffic in and around eastern Roseville and Granite Bay. East Roseville Parkway intersects Sierra College Boulevard approximately 2,000 feet north of the project site in the City of Roseville.

Haskell Way

Haskell Way is a minor unstriped residential street that begins at Sierra College Boulevard, extends west approximately 1,000 feet, and then dead ends. Haskell Way is within the Granite Bay Community Plan Area. Haskell Way is located approximately 300 feet north of the project site.

BICYCLE NETWORK

Sierra College Boulevard and Old Auburn Road currently have Class II bike lanes on both sides of the road within the project vicinity. Class II bike lanes are on-street bike lanes designated for exclusive or semi-exclusive use for bicycles by striping, pavement legends, and signs. Crossings from vehicle and pedestrian traffic are permitted across Class II bike lanes most commonly for intersections and access to roadside parking.

PEDESTRIAN NETWORK

Sierra College Boulevard and East Roseville Parkway currently have sidewalks on the east and west side of the road within the project vicinity. Old Auburn Road has crosswalk on the south

side of the roadway. Crosswalks exist at the intersections of Sierra College Boulevard with Old Auburn Road, and East Roseville Parkway.

TRANSIT NETWORK

Public transit service offered by Placer County through the study area is a Dial-A-Ride service that brings residents to Roseville Transit transfer centers. Transit in the City of Roseville consists of Local Fixed-Route Service, Dial-A-Ride, and Commuter Service. Per the City of Roseville Transit Local Service Map¹, the closest transit route to the project site is located at the Sierra College Boulevard / Eureka Road intersection (Routes E, G, and L).

4.10.2 REGULATORY AND PLANNING FRAMEWORK

FEDERAL

There are no federal regulations that pertain to transportation and traffic for the proposed project.

STATE

There are no State regulations that pertain to transportation and traffic for the proposed project.

LOCAL

Placer County General Plan. The Transportation and Circulation Element of the Placer County General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses. *Table 4.10-1: General Plan Goals and Policies – Transportation and Traffic* presents a consistency analysis of the goals and policies from the Placer County General Plan relevant to transportation, traffic, and circulation.

Specific to traffic operations, Placer County has adopted a methodology for determining the significance of traffic impacts within the context of the Level of Service goals established by the General Plan and local community plans. This methodology is noted below.

Roadway Segment Assessment Methodology:

A project may be considered to exceed the minimum LOS policies if;

- 1) A roadway segment operating at or above the established Placer County policy without the project will decrease to an unacceptable LOS with the project; or

¹ <https://www.roseville.ca.us/cms/One.aspx?portalId=7964922&pageId=8756381>, accessed June 18, 2018.

- 2) A roadway segment currently operating below the applicable established policy will experience an increase in V/C (volume to capacity) ratio of 0.05 or greater; or
- 3) A roadway segment currently operating below the established acceptable LOS Policy experiences an increase in ADT of 100 or more project generated trips, per lane.

Signalized Intersections Assessment Methodology:

A project may be considered to exceed the minimum LOS policies if;

- 1) An intersection operating at or above the established Placer County policies without the project will decrease to an unacceptable LOS with the project; or
- 2) An intersection currently operating below the acceptable LOS established policy will experience an increase in V/C (volume to capacity) ratio of 0.05 (5%) or greater; or
- 3) An intersection currently operating below the established acceptable LOS policy will experience an increase in overall average intersection delay of 4 seconds or greater.

Un-signalized Intersection Assessment Methodology:

A project may be considered to exceed the minimum LOS policies if;

- 1) An all-way stop or side street-controlled intersection which currently operates at or above the established Placer County policies without the project will deteriorate to an unacceptable LOS with the project and cause the intersection to meet MUTCD traffic signal warrant(s); or
- 2) An all-way stop or side street-controlled intersection which currently operates below the established acceptable LOS policy and meets MUTCD signal warrant(s) will experience an overall increase of 2.5 seconds or more with the project.

Further consideration will be given in situations where the existing level of service is just above or at the approved minimum level of service and any increase in vehicle trips, or even daily fluctuations in traffic, would deteriorate the level of service to an unacceptable level. In such cases, it may be determined by the County that part (2) or (3) of the above exceptions is more applicable and should be used to analyze a proposed project's impacts.

Granite Bay Community Plan. The Circulation Element of the GBPC envisions the harmonious integration of all modes and elements of transportation with a long-term vision to provide a 'balanced transportation system that is accessible to all members of the Granite Bay community including persons with disabilities. *Table 4.10-2: Granite Bay Community Plan Goals and Policies*

– *Transportation and Traffic* presents a consistency analysis of the goals and policies from the Placer County General Plan relevant to transportation and traffic.

Specifically, Policy 9.1.1.3 of the GBPC states:

The level of service (LOS) on major roadways (i.e., arterial and collector routes) and intersections shall be at Level “C” or better during the A.M. and/or P.M. peak hour. The exceptions to this are intersections along Auburn-Folsom from Douglas Boulevard southerly, and along Douglas Boulevard from Auburn- Folsom Road westerly, where the LOS shall be LOS “E” or better during the A.M. and/or P.M. peak hour.

Table 4.10-1: General Plan Goals and Policies – Transportation and Traffic

General Plan Goals	Consistency Determination	Analysis
<p>Goal 3.A: To Provide for the long-range planning and development of the County’s roadway system to ensure the safe and efficient movement of people and goods.</p>	<p>Consistent</p>	<p>The project is consistent with this goal. A site-specific traffic impact analysis was prepared for the project and determined that the addition of the proposed project traffic would not result in any intersections or roadways segments dropping below an acceptable level of service either directly or cumulatively. The proposed project does not propose any changes to the County’s roadway network.</p>
<p>Policy 3.A.1: The County shall plan, design, and regulate roadways in accordance with the functional classification system described in Part I of this Policy Document and reflected in the Circulation Plan Diagram.</p>	<p>Consistent</p>	<p>The project is consistent with this policy. The proposed project does not propose any changes to the County’s roadway network. The existing roadway network is planned and designed in accordance with County guidelines. The project would not add traffic to County roadways at levels that would exceed acceptable levels.</p>
<p>Policy 3.A.2: Streets and roads shall be dedicated, widened, and constructed according to the roadway design and access standards generally defined in Section I of this Policy Document and, more specifically in community plans, specific plans, and the County’s Highway Deficiencies Report (SCR 93). Exceptions to these standards may be considered due to environmental, geographical, historical, or other similar limiting factors. An exception may be permitted only upon determination by the Public Works Director that safe and adequate public access and circulation are preserved.</p>	<p>Consistent</p>	<p>The project is consistent with this policy. The project was designed in accordance with County standards, to ensure safe and adequate public access and circulation. Two roadway frontage options are evaluated for Old Auburn Road. Each one meets the intent of the County standards to provide adequate capacity for future traffic volumes. Option 2: Modified Frontage Improvements option (part of the proposed project) is proposed to reduce impacts on visual and biological resources.</p>

Table 4.10-1: General Plan Goals and Policies – Transportation and Traffic

General Plan Goals	Consistency Determination	Analysis
<p>Policy 3.A.3: The County shall require that roadway rights-of-way be wide enough to accommodate the travel lanes needed to carry long-range forecasted traffic volumes (beyond 2010), as well as any planned bikeways and required drainage, utilities, landscaping, and suitable separations. Minimum right-of-way criteria for each class of roadway in the County are specified in Part I of this Policy Document.</p>	Consistent	The project is consistent with this policy. Please discussion under Policy 3.A.2 above.
<p>Policy 3.A.4: On arterial roadways and thoroughfares, intersection spacing should be maximized. Driveway encroachments along collector and arterial roadways shall be minimized. Access control restrictions for each class of roadway in the County are specified in Part I of this Policy Document.</p>	Consistent	The project is consistent with this policy. The project had been designed with sufficient right-of-way for Old Auburn Road and Sierra College Boulevard under both roadway frontage improvement options. The project does not add any new driveways to Old Auburn Road. Only a restricted emergency vehicle access is proposed on Sierra College Boulevard.
<p>Policy 3.A.6: The County shall require all new development to provide off-street parking for the required number of parking spaces, either on-site or in consolidated lots or structures.</p>	Consistent	The project is consistent with this policy. The project provides 101 parking spaces when 82 are required.
<p>Policy 3.A.7: The County shall develop and manage its roadway system to maintain the following minimum levels of service (LOS), or</p>	Consistent	The project is consistent with this policy. A site-specific traffic impact analysis was prepared for the project and determined that the addition of the proposed project traffic would not result in any intersections or roadways segments dropping below

Table 4.10-1: General Plan Goals and Policies – Transportation and Traffic

General Plan Goals	Consistency Determination	Analysis
<p>as otherwise specified in a community or specific plan).</p> <ul style="list-style-type: none"> a. LOS “C” on rural roadways, except within one-half mile of state highways where the standard shall be LOS “D”. b. LOS “C” on urban/suburban roadways except within one-half mile of state highways where the standard shall be LOS “D”. c. An LOS no worse than specified in the Placer County Congestion Management Program (CMP) for the state highway system. <p>Temporary slippage in LOS “C” may be acceptable at specific locations until adequate funding has been collected for the construction of programmed improvements.</p> <p>The County may allow exceptions to the LOS standards where it finds that the improvements or other measures required to achieve the LOS standards are unacceptable based on established criteria. In allowing any exception to the standards, the County shall consider the following factors:</p> <ul style="list-style-type: none"> • The number of hours per day that the intersection or roadway segment would 		<p>an acceptable level of service either directly or cumulatively. As such, the project does not result in roadways or intersections exceeding the LOS standard established by the Granite Bay Community Plan.</p>

Table 4.10-1: General Plan Goals and Policies – Transportation and Traffic

General Plan Goals	Consistency Determination	Analysis
<p>operate at conditions worse than the standard.</p> <ul style="list-style-type: none"> • The ability of the required improvement to significantly reduce peak hour delay and improve traffic operations. • The right-of-way needs and the physical impacts on surrounding properties. • The visual aesthetics of the required improvement and its impact on community identity and character. • Environmental impacts including air quality and noise impacts. • Construction and right-of-way acquisition costs. • The impacts on general safety. • The impacts on the required construction phasing and traffic maintenance. • The impacts on quality of life as perceived by residents. • Consideration of other environmental, social, or economic factors on which the County may base findings to allow an exceedance of the standards. <p>Exceptions to the standards will only be allowed after all feasible measures and</p>		

Table 4.10-1: General Plan Goals and Policies – Transportation and Traffic

General Plan Goals	Consistency Determination	Analysis
options are explored, including alternative forms of transportation.		
<p>Policy 3.A.8: The County shall work with neighboring jurisdictions to provide acceptable and compatible levels of service and joint funding on the roadways that may occur on the circulation network in the Cities and the unincorporated area.</p>	Consistent	<p>The project is consistent with this policy. The Placer County Transportation Planning Agency (PCTPA), in coordination with Placer jurisdictions and Caltrans, works to identify existing deficiencies and necessary future improvements to the regional roadway network including Interstate 80 and Highway 65. The South Placer Regional Transportation Authority (SPRTA) implements a transportation fee program to fund these regionally significant projects that address long term, cumulative impacts. Improvements to Caltrans facilities included within the SPRTA Fee Program include: I-80 Auxiliary Lanes, Douglas/ I-80 Interchange Improvements, Douglas/I-80 Ramps, Atlantic/I-80 Ramps, Highway 65/I-80 Interchange Improvements, and the Highway 65 Widening. The proposed project would be required to pay SPRTA fees prior to building permit issuance. The payment fees would mitigate the project’s impacts to the regional transportation system including future improvements.</p>
<p>Policy 3.A.11: The County shall require an analysis of the effects from traffic from all land development projects. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project consistent with Policy 3.A.7. Such improvements may include a fair share of improvements that provide benefits to others.</p>	Consistent	<p>The project is consistent with this policy. A site-specific traffic impact analysis was prepared for the project and determined that the addition of the proposed project traffic would not result in any intersections or roadways segments dropping below an acceptable level of service either directly or cumulatively. As such, the project does not result in roadways or intersections exceeding the LOS standard established by the Granite Bay Community Plan.</p>
<p>Policy 3.A.14: Placer County shall participate with other jurisdictions and Caltrans in the planning and programming of improvements</p>	Consistent	<p>The proposed project is consistent with this policy. As discussed in Policy 3.A.8 above, the Placer County Transportation Planning Agency (PCTPA), in coordination with Placer jurisdictions and Caltrans, works to identify existing deficiencies and necessary</p>

Table 4.10-1: General Plan Goals and Policies – Transportation and Traffic

General Plan Goals	Consistency Determination	Analysis
<p>to the State Highway system, in accordance with state and federal transportation planning and programming procedures, so as to maintain acceptable levels of service for Placer County residents on all State Highways in the County. Placer County shall participate with Caltrans and others to maintain adopted level of service (LOS) standards as follows:</p> <ul style="list-style-type: none"> a. For State Highways 49, 65, and 267 Placer County’s participation shall be in proportion to traffic impacts from its locally-generated traffic. b. The funding of capacity-increasing projects on I-80 shall utilize state and federal sources intended for the improvement of the regional and interstate system such as Flexible Congestion Relief (FCR). Placer County and local development shall not be required to participate financially in the upgrading of I-80 to provide additional capacity for through traffic. c. Placer County assumes no responsibility for funding roadway improvements to the street system within other jurisdictions. Each local jurisdiction shall be responsible for improvements necessary to sustain 		<p>future improvements to the regional roadway network including Interstate 80 and Highway 65. The South Placer Regional Transportation Authority (SPRTA) implements a transportation fee program to fund these regionally significant projects that address long term, cumulative impacts. Improvements to Caltrans facilities included within the SPRTA Fee Program include: I-80 Auxiliary Lanes, Douglas/ I-80 Interchange Improvements, Douglas/I-80 Ramps, Atlantic/I-80 Ramps, Highway 65/I-80 Interchange Improvements, and the Highway 65 Widening. The proposed project would be required to pay SPRTA fees prior to building permit issuance. The payment fees would mitigate the project’s impacts to the regional transportation system including future improvements.</p>

Table 4.10-1: General Plan Goals and Policies – Transportation and Traffic

General Plan Goals	Consistency Determination	Analysis
<p>adopted LOS standards within its jurisdiction limits. Placer County may negotiate participation agreements with other jurisdictions for transportation improvement projects that provide mutual benefit.</p>		
<p>Goal 3.D.5: The County shall continue to require developers to finance and install pedestrian walkways, equestrian trails, and multi-purpose paths in new development, as appropriate.</p>	<p>Consistent</p>	<p>The proposed project is consistent with this goal. This EIR evaluates two roadway frontage improvement options. Option 1: The Full Frontage Improvements option would provide bike lanes and a sidewalk along the Old Auburn Road frontage within the proposed right-of-way. Option 2: The Modified Frontage Improvements option (the proposed project) would provide a public multi-purpose pathway connecting Sierra College Boulevard with Old Auburn Road that is separated from the project frontage. The Option 2: Modified Frontage Improvements option is proposed to reduce impacts on visual and biological resources.</p>

Table 4.10-2: Granite Bay Community Plan Goals and Policies – Transportation and Traffic

Granite Bay Community Plan Goals and Policies	Consistency Determination	Analysis
<p>General Community Policy 1.7.7: Fees will be charged to new development to offset fiscal, functional or environmental impacts to the community.</p>	Consistent	<p>The project is consistent with this policy. The project applicant would pay fees for its “Fair Share” of infrastructure and development costs necessary to provide service to the proposed project.</p>
<p>Goal 9.1.1: To provide a balanced system of roadways that ensure safe and efficient movement of local and through traffic, accommodate area growth, retain the area’s rural and scenic qualities, and accommodate pedestrian and cycle traffic.</p>	Consistent	<p>The project is consistent with this policy. The proposed project would include frontage improvements and internal roadways suitable for providing vehicular, pedestrian, and bicycle access through the site. The Full Frontage Improvements option was found to have significant visual impacts that would result in visual impacts as a result of removing existing mature trees along the Old Auburn Road frontage (including trees offsite on the adjacent properties to the west) and was determined to have a significant visual impact that would detract from the area’s rural and scenic qualities. The Modified Frontage Improvements option (the proposed project) would minimize impacts to the trees along the Old Auburn Road frontage and impacts were considered less than significant.</p>
<p>Policy 9.1.1.1: The County shall plan, design and regulate roadways in accordance with the functional classification system shown on the Circulation diagram and the typical cross sections included in the Community Plan.</p>	Consistent	<p>The project is consistent with this policy. The analysis contained in this chapter has been conducted in consultation with County agencies with jurisdictional authority over implementation of this policy. Therefore, roadway improvements and construction are subject to county approval.</p>
<p>Policy 9.1.1.2: The rights-of-way for roadways shall be wide enough to accommodate appropriate road paving, trails, paths, and bikeways, drainage, public utility services, and substantial trees and shrubs.</p>	Consistent	<p>The project is consistent with this policy. As previously discussed, this EIR evaluates two roadway frontage improvement options. Option 1: The Full Frontage Improvements option would provide bike lanes and a sidewalk along the Old Auburn Road frontage within the proposed right-of-way. Option 2: The Modified Frontage Improvements option (the proposed project) would provide a public multi-purpose pathway connecting Sierra College Boulevard with Old Auburn Road that is separated from the project frontage. The Option 2: Modified Frontage Improvements option is</p>

Table 4.10-2: Granite Bay Community Plan Goals and Policies – Transportation and Traffic

Granite Bay Community Plan Goals and Policies	Consistency Determination	Analysis
		<p>proposed to reduce impacts on visual and biological resources.</p> <p>Also previously noted, the Full Frontage Improvements option was found to have significant visual impacts that would result in visual impacts as a result of removing existing mature trees along the Old Auburn Road frontage (including trees offsite on the adjacent properties to the west) and was determined to have a significant visual impact that would detract from the area’s rural and scenic qualities. The Modified Frontage Improvements option (the proposed project) would minimize impacts to the trees along the Old Auburn Road frontage and impacts were considered less than significant.</p>
<p>Policy 9.1.1.3: The level of service (LOS) on major roadways (i.e., arterial and collector routes) and intersections shall be at Level “C” or better during the A.M. and/or P.M. peak hour. The exceptions to this are intersections along Auburn-Folsom from Douglas Boulevard southerly, and along Douglas Boulevard from Auburn-Folsom Road westerly, where the LOS shall be LOS “E” or better during the A.M. and/or P.M. peak hour.</p>	<p>Consistent</p>	<p>The project is consistent with this policy. A site-specific traffic impact analysis was prepared for the project and determined that the addition of the proposed project traffic would not result in any intersections or roadways segments dropping below an acceptable level of service either directly or cumulatively. As such, the project does not result in roadways or intersections exceeding the LOS standard established by the Granite Bay Community Plan.</p>
<p>Policy 9.1.1.5: Land development projects shall be approved only if LOS “C” (or the exception cited earlier) can be achieved on roads and intersections after: a) traffic from approved projects has been added to the system, and</p> <p>b) improvements funded by the capital improvements program (CIP) have been constructed. This will result in temporary slippage</p>	<p>Consistent</p>	<p>The project is consistent with this policy. Please see discussion under Policy 9.1.1.3 above.</p>

Table 4.10-2: Granite Bay Community Plan Goals and Policies – Transportation and Traffic

Granite Bay Community Plan Goals and Policies	Consistency Determination	Analysis
<p>of the LOS below the adopted standards until adequate funding has been collected for the construction of CIP improvements.</p>		
<p>Policy 9.1.1.13: Meandering paths, separated from the roadway, shall be used in lieu of sidewalks in all developments with a parcel size of 0.9 acres or more and shall be encouraged in developments with parcel sizes of 0.4 acres or more.</p>	<p>Consistent</p>	<p>The project is consistent with this policy. The project proposes the Modified Frontage Improvements option for Old Auburn Road. This option would provide a public multi-purpose pathway connecting Sierra College Boulevard with Old Auburn Road that is separated from the project frontage. This option is proposed to reduce impacts on visual and biological resources.</p>
<p>Policy 9.1.1.22: No new driveways would be added to any arterial roadway unless it is the only access available to a parcel. An exception to this requirement may be granted where there is a planned stop sign or traffic signal on the arterial adjacent to the parcel.</p>	<p>Consistent</p>	<p>The project is consistent with this policy. The project proposed to utilize the existing driveway on Old Auburn Road and proposes an emergency vehicle only access on Sierra College Boulevard.</p>
<p>Policy 9.1.1.28: To help preserve the rural character of Granite Bay and promote interconnectivity between neighborhoods, gated subdivisions shall only be allowed under the following circumstances:</p> <ul style="list-style-type: none"> a. Instances in which the entrance is located adjacent to a substantial traffic generator (i.e. regional park, church or school) that creates a parking issue within the subdivision; or, 	<p>Consistent</p>	<p>The project is consistent with this policy. The project is a residential project but not a subdivision. The project does not propose an entry gate.</p>

Table 4.10-2: Granite Bay Community Plan Goals and Policies – Transportation and Traffic

Granite Bay Community Plan Goals and Policies	Consistency Determination	Analysis
<p>b. Instances in which the entrance to the subdivision is contiguous to or accessed through a non-residential land use such as a business/professional or commercial use, and separating the uses with a gate is the most practicable solution; or,</p> <p>c. Is directly accessed off a major arterial roadway (see Table 9.7.1 of the Granite Bay Community Plan).</p>		

4.10.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

Significance Criteria

The significance criteria for this analysis were developed by Placer County based on criteria presented in Appendix G, "Environmental Checklist Form," of the CEQA Guidelines. The proposed project would result in a significant impact if it would result in:

- An increase in traffic which may be substantial in relation to the existing and/or planned future year traffic load and capacity of the roadway system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);
- Exceeding, either individually or cumulatively, a level of service standard established by the County General Plan and/or Community Plan for roads affected by project traffic;
- Increased impacts to vehicle safety due to roadway design features (i.e. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Inadequate emergency access or access to nearby uses;
- Insufficient parking capacity on-site or off-site;
- Hazards or barriers for pedestrians or bicyclists;
- Conflicts with adopted policies, plans, or programs supporting alternative transportation (i.e., bus turnouts, bicycle lanes, bicycle racks, public transit, pedestrian facilities, etc.) or otherwise decrease the performance or safety of such facilities;
- Change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

LEVEL OF SERVICE DEFINITIONS

This traffic impact analysis was performed in accordance with the County's traffic impact analysis guidelines. More specifically, *Highway Capacity Manual (HCM), 6th Edition* methodology was specified for use for all study facilities.

Analysis of transportation facility significant environmental impacts is based on the concept of Level of Service (LOS). The LOS of a facility is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity.

Intersections

Levels of Service for this study were determined using methods defined in the HCM using appropriate traffic analysis software. The HCM includes procedures for analyzing both signalized and un-signalized intersections. These procedures define LOS as a function of average delay for the intersection as a whole. *Table 4.10-3: Intersection Level of Service Criteria* presents intersection LOS definitions as defined in the HCM.

Table 4.10-3: Intersection Level of Service Criteria

Level of Service (LOS)	Un-Signalized	Signalized
	Average Control Delay* (sec/veh)	Control Delay per Vehicle (sec/veh)
A	≤ 10	≤ 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F	> 50	> 80

Source: Highway Capacity Manual, 6th Edition

* Applied to the worst lane/lane group(s) for SSSC

Roadway Segments

The performance of roadway segments are measured in terms of capacity. The capacity of a facility is the maximum number of persons or vehicles that can be expected to traverse a point or uniform section of road within a specified time frame under prevailing roadway, traffic and control conditions. Theoretically, this is the point in which the flow rate (vehicles/hour) on the facility is the highest. At lower traffic volumes, the peak hour operations would be low density with higher speeds. At higher traffic volumes, the peak hour operations would be of higher density, but at lower speeds. The LOS for roadway segments is calculated based on the relationship between the daily traffic volumes and level of service based on roadway facility type, number of lanes, distribution of traffic, terrain, and volume to capacity ratio.² *Table 4.10-4: Evaluation Criteria for Roadway Segment Level of Service*, summarizes the approximate maximum daily traffic volumes for each facility/level of service combination.

² Placer County General Plan EIR, Page 4-21.

Table 4.10-4: Evaluation Criteria for Roadway Segment Levels of Service

Roadway Capacity Class	Maximum Daily Traffic Volume Per Lane – Level of Service				
	A	B	C	D	E
1. Freeway - Level Terrain	6,300	10,620	13,680	16,740	18,000
2. Freeway - Rolling Terrain	5,290	8,920	11,650	14,070	15,120
3. Freeway - Mountain Terrain	3,400	5,740	7,490	9,040	9,720
4. Arterial - High Access Control	6,000	7,000	8,000	9,000	10,000
5. Arterial - Moderate Access Control	5,400	6,300	7,200	8,100	9,000
6. Arterial - Low Access Control	4,500	5,250	6,000	6,870	7,500
7. Rural 2-lane Highway - Level Terrain	1,500	2,950	4,800	7,750	12,500
8. Rural 2-lane Highway - Rolling Terrain	800	2,100	3,800	5,700	10,500
9. Rural 2-lane Highway - Mountain Terrain	400	1,200	2,100	3,400	7,000

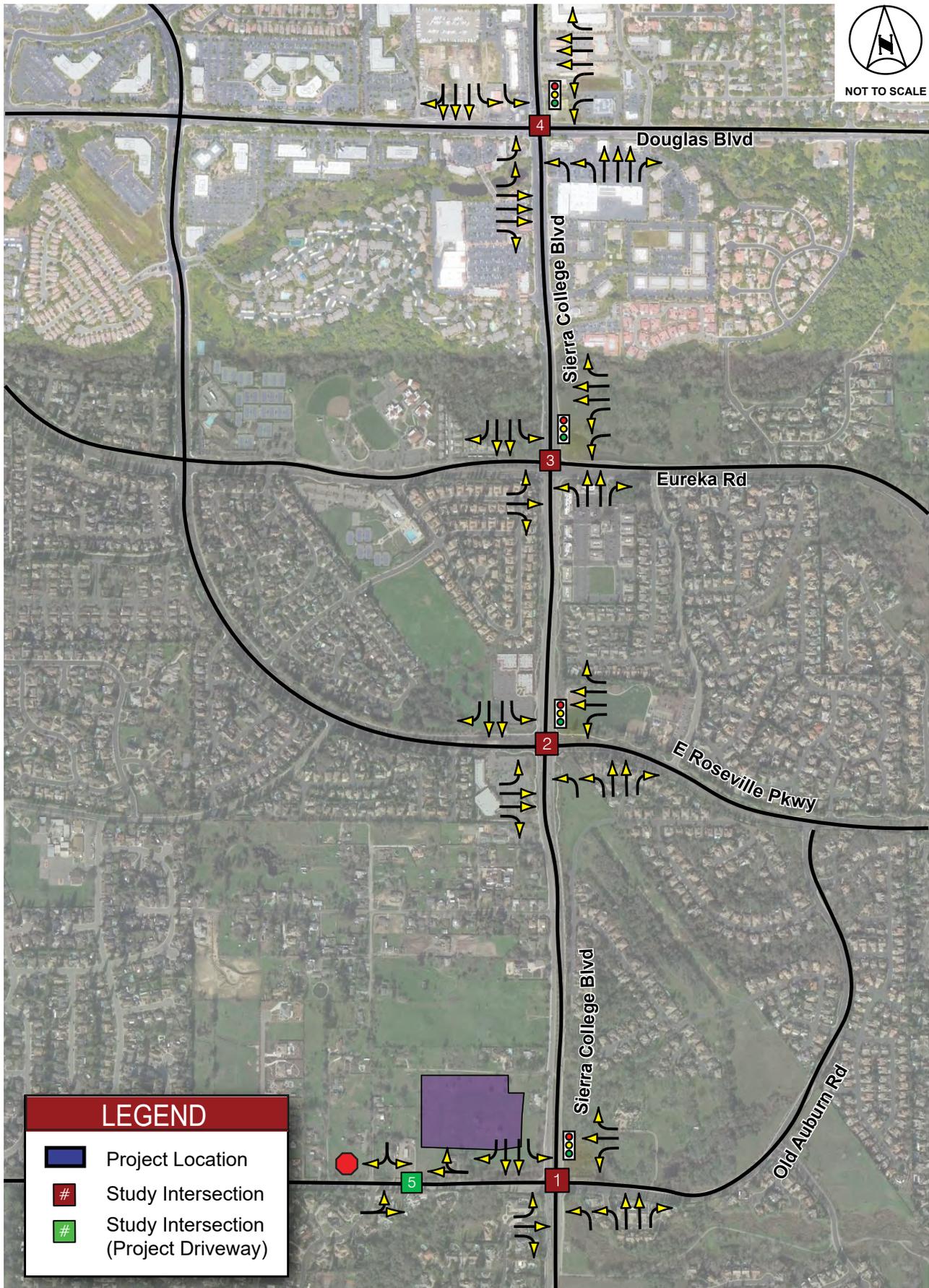
This LOS analysis was conducted for the study facilities for the Existing, Cumulative, Existing plus Proposed Project conditions, and Cumulative (2036) plus Proposed Project conditions.

SUBSTANTIAL INCREASE TRAFFIC ON ROADWAYS OR INTERSECTIONS

Significance Criteria 4.10-1: Would the project result in an increase in traffic which may be substantial in relation to the existing and/or planned future year traffic load and capacity of the roadway system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? (Less Than Significant Impact)

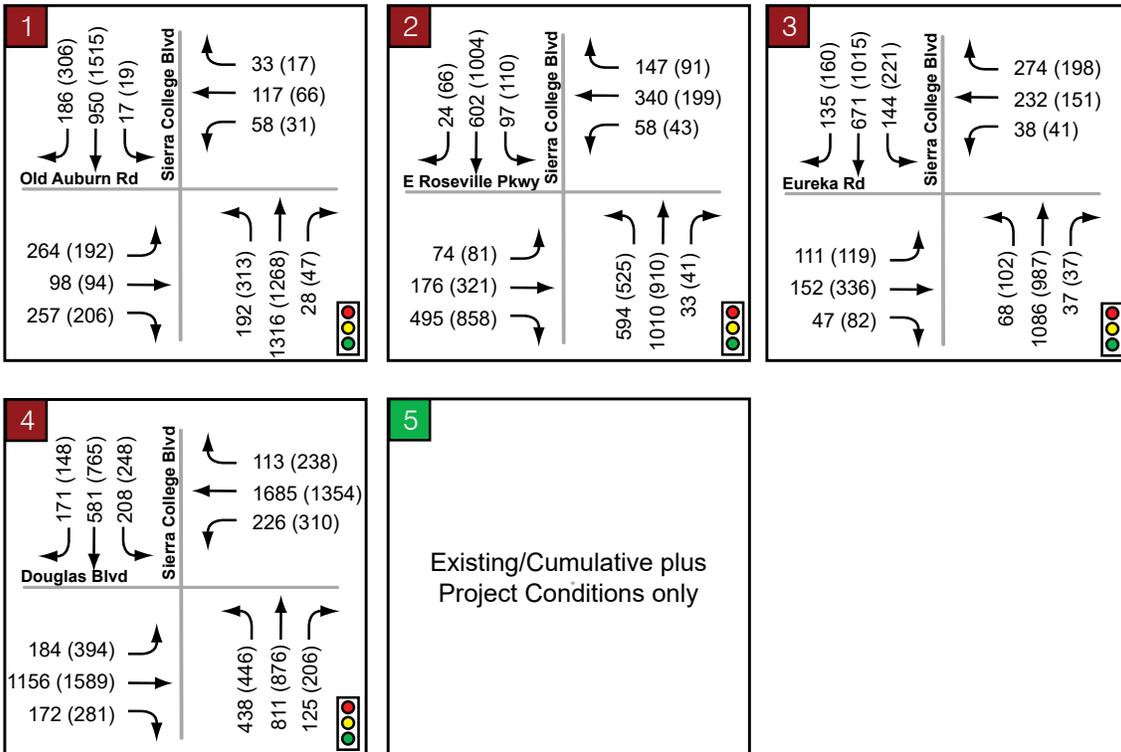
Existing Levels of Service

To establish existing conditions, traffic counts from the County's Granite Bay Cumulative Study were used for the study intersections and roadway segments. The 24-hour roadway segment counts were used to evaluate the LOS of each roadway segment between study intersections. **Figure 4.10-1: Study Intersections, Traffic Control, and Lane Geometries**, shows where the study intersections are located, and how many travels there are for each leg of the intersection. **Figure 4.10-2: Existing Peak-Hour Traffic Volumes**, shows the volume of traffic between each study intersection along Sierra College Boulevard during the peak traffic hours. The peak traffic hours are between 7 am to 9 am in the morning and between 4 pm to 6 pm in the afternoon. Peak hours are used in this traffic analysis as it represents the time of the day when traffic volumes are heaviest.

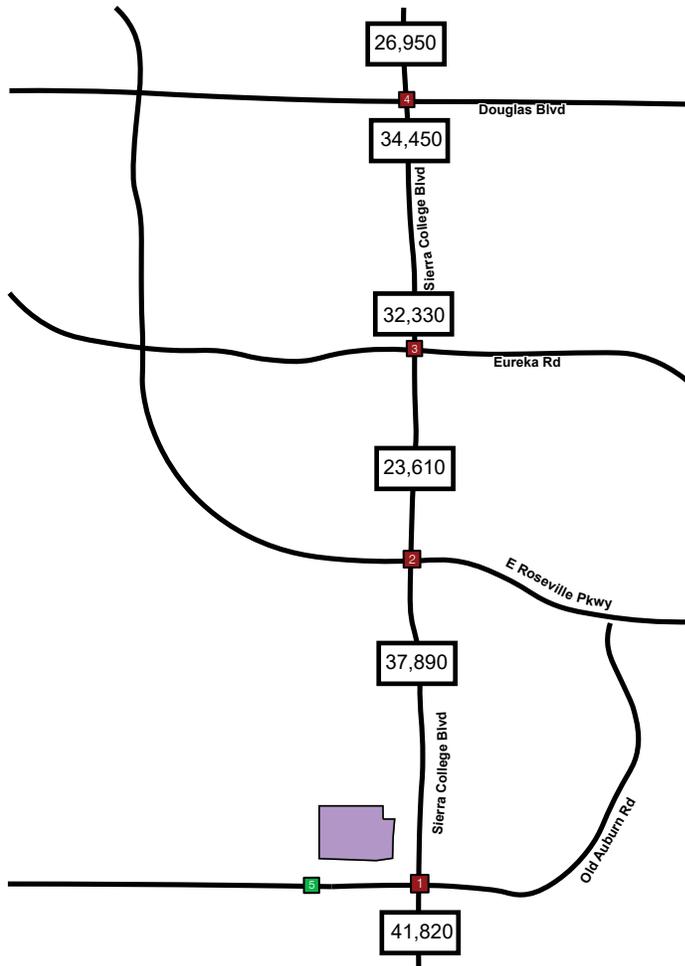
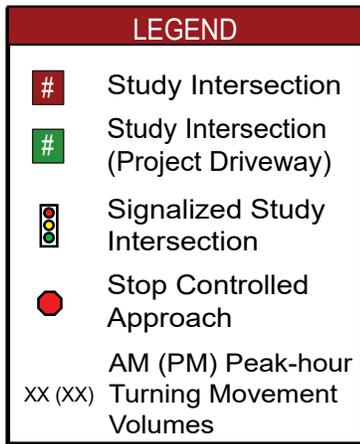


Source: Kimley-Horn., 2018

FIGURE 4.10-1: Study Intersections, Traffic Control, and Lane Geometries
 Placer Retirement Residence
 Placer County



NOT TO SCALE



Source: Kimley-Horn., 2017

FIGURE 4.10-2: Existing Peak-Hour Traffic Volumes
 Placer Retirement Residence
 Placer County

The levels of service corresponding to the study intersections and roadway segments are presented in *Table 4.10-5: Existing Intersection Levels of Service* and *Table 4.10-6: Existing Roadway Segments Levels of Service*.

As indicated in Table 4.10-5, the study intersections operate between LOS C and LOS E during the AM and PM peak-hour.

Table 4.10-5: Existing Intersection Levels of Service

Intersection	Control	Peak Hour	Existing (2017)	
			Delay (sec)	LOS
Sierra College Boulevard @ Old Auburn Road	Signal	AM	35.5	D
		PM	32.5	C
Sierra College Boulevard @ E Roseville Parkway	Signal	AM	36.5	D
		PM	35.5	D
Sierra College Boulevard @Eureka Road	Signal	AM	42.0	D
		PM	64.5	E
Sierra College Boulevard @ Douglas Road	Signal	AM	43.5	D
		PM	58.5	E

Notes: **Bold** indicates unacceptable operations. LOS Standard is C for Intersections 1,2, and 3, and E for intersection 4.

Table 4.10-6: Existing Roadway Segment Levels of Service presents the daily operating conditions for the study roadway segments. As indicated in Table 4.10-6, the study segments operate between LOS A and LOS F during a typical weekday under existing conditions.

Project Trip Generation

The number of trips anticipated to be generated by the proposed project were approximated using data included in *Trip Generation, 10th Edition*, published by the Institute of Transportation Engineers (ITE). The anticipated trip generation characteristics for the proposed project are shown in *Table 4.10-7: Project Trip Generation*.

Table 4.10-6: Existing Roadway Segment Levels of Service

Roadway	From	To	Roadway Capacity Classification	Number of Lanes	LOS Threshold	Existing (2017)		
						ADT	V/C Ratio	LOS
Sierra College Boulevard	Olympus Dr	Douglas Blvd	Arterial - Moderate Access Control	6 lanes	C	26,950	0.50	A
	Douglas Blvd	Renaissance Creek	Arterial - Moderate Access Control	6 lanes	C	34,450	0.64	B
	Renaissance Creek	Eureka Rd	Arterial - Moderate Access Control	4 lanes	C	32,330	0.90	D
	Eureka Rd	E Roseville Pkwy	Arterial - Moderate Access Control	4 lanes	C	23,610	0.66	B
	E Roseville Pkwy	Old Auburn Rd	Arterial - Moderate Access Control	4 lanes	C	37,890	1.05	F
	Old Auburn Rd	County Line	Arterial - Moderate Access Control	4 lanes	C	41,820	1.16	F

Notes: **Bold** indicates unacceptable operations.

Table 4.10-7: Proposed Project Trip Generation

Land Use (ITE Land Use Code)	Size (DU)	Total Daily Trips	AM Peak-Hour				PM Peak-Hour					
			Total Trips	IN		OUT		Total Trips	IN		OUT	
				%	Trips	%	Trips		%	Trips	%	Trips
Congregate Care Facility (253)	145	294	9	60%	5	40%	4	25	53%	13	47%	12
Proposed Total Trips:		294	9		5		4	25		13		12

Source: Trip Generation Manual, 10th Edition, ITE

As shown in Table 4.10-7, the proposed project is estimated to generate 294 new daily trips, with 9 new trips occurring during the AM peak-hour, and 25 new trips occurring during the PM peak-hour.

The expected trips to be generated by the project (project trips) were distributed based on existing traffic volumes, general knowledge of project area traffic patterns, the proposed project layout, and professional judgement. Project trips were distributed with the majority of the traffic trips from the project site headed north on Sierra College Boulevard toward East Roseville Parkway towards Interstate 80 and to the commercial centers on Douglas Boulevard. How those trips are anticipated to be distributed on the surrounding roadway network is shown in **Figure 4.10-3: Trip Assignment**.

Existing Plus Proposed Project Conditions

The project traffic was added to the existing conditions and levels of service were determined at the study intersections and roadway segments. Traffic volumes for this analysis scenario are graphically shown in **Figure 4.10-4: Existing Plus Proposed Project Peak Hour Traffic Volumes**.

Table 4.10-8: Existing Plus Proposed Project Peak Hour Intersection Levels of Service presents the peak-hour intersection and driveway operating conditions for this analysis scenario. As indicated in Table 4.10-8, the study intersections operate between LOS C and LOS E during the AM and PM peak-hours for the Existing Plus Proposed Project Conditions. None of the intersections are shown to experience a decrease in LOS. Based on the County's Assessment Methodology, the project would not cause an intersection:

- Operating at or above the established Placer County LOS policies without the project to decrease to an unacceptable LOS with the project;
- Operating below an acceptable LOS to experience an increase in V/C (volume to capacity) ratio of 0.05 (5%) or greater; or,
- Operating below the established acceptable LOS to experience an increase in overall average intersection delay of 4 seconds or greater.

Therefore, potential impacts on surrounding intersections as a result of project traffic are considered **less than significant**.

Table 4.10-8: Existing Plus Proposed Project Peak Hour Intersection Levels of Service

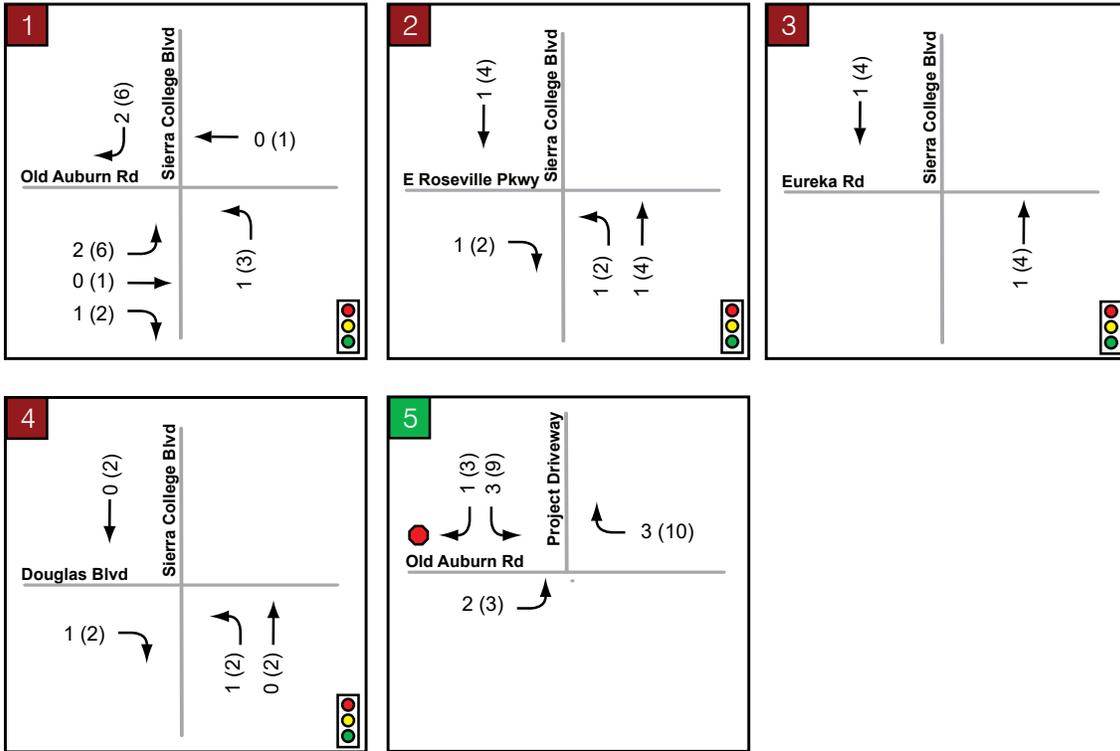
Intersection	Control	Peak Hour	Existing		Existing Plus Proposed Project	
			Delay (sec)	LOS	Delay (sec)	LOS
Sierra College Boulevard @ Old Auburn Road	Signal	AM	35.5	D	35.5	D
		PM	32.5	C	33.0	C
Sierra College Boulevard @ E Roseville Parkway	Signal	AM	36.5	D	36.5	D
		PM	35.5	D	35.5	D
Sierra College Boulevard @ Eureka Road	Signal	AM	42.0	D	42.0	D
		PM	64.5	E	65.0	E
Sierra College Boulevard @ Douglas Road	Signal	AM	43.5	D	43.5	D
		PM	58.5	E	58.5	E
Old Auburn Rd @ Project Dwy	TWSC	AM	-	-	14.5	B
		PM	-	-	15.0	B

Notes: **Bold** indicates unacceptable operations. LOS Standard is C for Intersections 1, 2, 3, and 5, and E for intersection 4. Intersection 5 delay was calculated by taking the weighted average for movements yielding the right-of-way per the County's Methodology of Assessment.

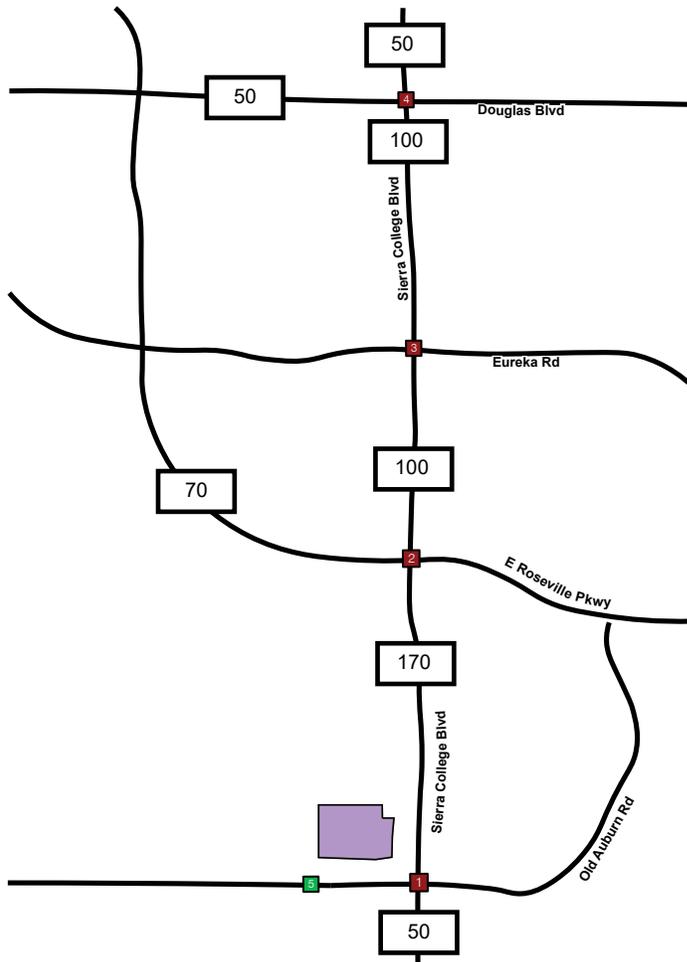
Table 4.10-9: Existing Plus Proposed Project Roadway Segment Levels of Service presents the daily roadway segment operating characteristics for this analysis scenario. As indicated in Table 4.10-9, the study roadway segments continue to operate from LOS A to LOS F for the Existing Plus Proposed Project Conditions. None of the segments experience an increase in volume to capacity ratio greater than 0.05 as result of the proposed project traffic. The project would not contribute to a roadway segment currently operating below the established acceptable LOS Policy to experience an increase in ADT of 100 or more project generated trips, per lane. None of the roadway segments experience a drop in LOS.

The volume along Sierra College Boulevard between Renaissance Creek and Eureka Road for Existing Conditions (without the project) is 32,330, while the volume for Existing plus Proposed Project Conditions is 32,430, an increase of 100 vehicles for the bidirectional, four-lane segment.

The capacity of this roadway segment is 36,000 daily vehicles, while the LOS E threshold is a volume to capacity ratio (v/c ratio) of 0.90 or a daily volume of 32,400. While both Existing and Existing plus Proposed Project Conditions show a v/c ratio of 0.90, if we extend the calculations to the thousandth decimal point, the v/c ratio is 0.898 for Existing Conditions and 0.901 for Existing plus Proposed Project Conditions. This is why for Existing Conditions, the roadway segment is shown as operating at LOS D, while it is shown as operating at LOS E for Existing plus Proposed Project Conditions.

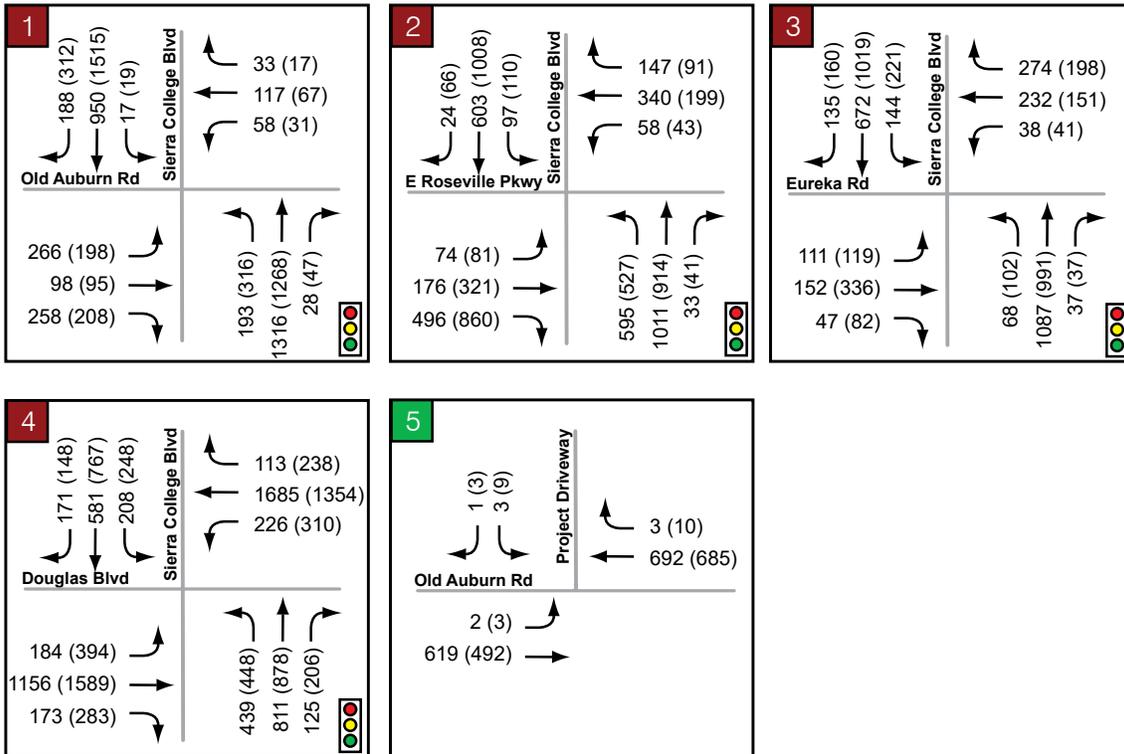


LEGEND	
#	Study Intersection
#	Study Intersection (Project Driveway)
	Signalized Study Intersection
	Stop Controlled Approach
XX (XX)	AM (PM) Peak-hour Turning Movement Volumes
XX	ADT Volumes

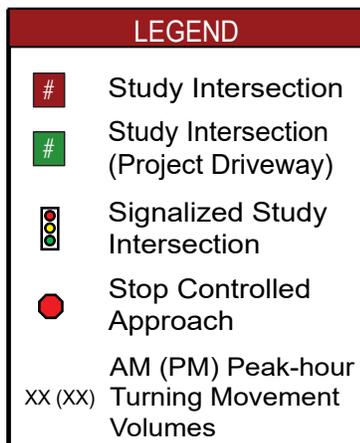
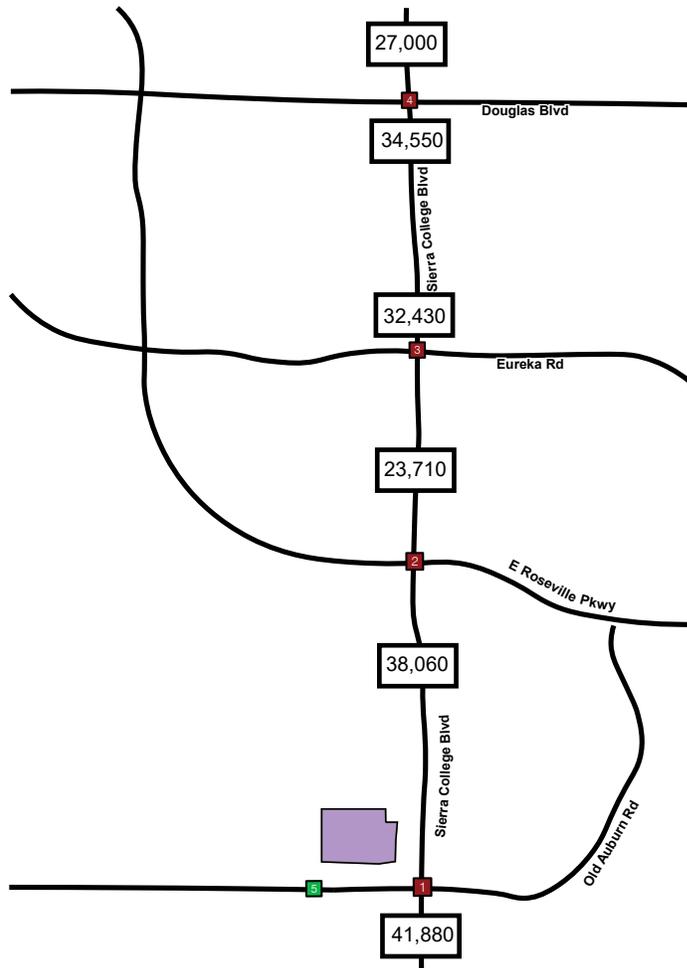


Source: Kimley-Horn., 2018

FIGURE 4.10-3: Project Trip Assignment
 Placer Retirement Residence
 Placer County



NOT TO SCALE



Source: Kimley-Horn., 2018

FIGURE 4.10-4: Existing Plus Proposed Project Peak-Hour Traffic Volumes
Placer Retirement Residence
Placer County

The LOS threshold for this roadway segment is LOS C as defined by the Placer County General Plan and the Granite Bay Community Plan. As noted in the Placer County Department of Public Works Impact Analysis Methodology of Assessment Memorandum, a roadway already operating unacceptably will have a significant impact if that roadway segment experiences an increase to the v/c ratio of 0.05 or more, or an increase in ADT of 100 or more project generated trips per lane. As the roadway is operating unacceptably without the project (LOS D) these thresholds determine whether the project significantly impacts this roadway segment. However, this roadway segment is four lanes, and thus, the project would only contribute 25 vehicles per lane. In addition, the project does not increase the v/c ratio by 0.05 or more as summarized above. Therefore, even though the LOS degrades from LOS D to LOS E, the project is not considered to significantly impact this roadway segment. As such, potential impacts are considered **less than significant**.

Table 4.10-9: Existing Plus Proposed Project Roadway Segment Levels of Service

Roadway	From	To	Roadway Capacity Classification	Number of Lanes	LOS Threshold	Existing plus Project		
						ADT	V/C Ratio	LOS
Sierra College Boulevard	Olympus Dr	Douglas Blvd	Arterial - Moderate Access Control	6 lanes	C	27,000	0.50	A
	Douglas Blvd	Renaissance Creek	Arterial - Moderate Access Control	6 lanes	C	34,550	0.64	B
	Renaissance Creek	Eureka Rd	Arterial - Moderate Access Control	4 lanes	C	32,430	0.90	E
	Eureka Rd	E Roseville Pkwy	Arterial - Moderate Access Control	4 lanes	C	23,710	0.66	B
	E Roseville Pkwy	Old Auburn Rd	Arterial - Moderate Access Control	4 lanes	C	38,060	1.06	F
	Old Auburn Rd	County Line	Arterial - Moderate Access Control	4 lanes	C	41,880	1.16	F

Note: **Bold** indicates unacceptable operations.

Option 1: Full Frontage Improvements – (Less Than Significant Impact)

The Full Frontage Improvements option would not generate any additional traffic and would not adversely affect the LOS of any additional roadway segments or intersections. As such, potential impacts on traffic operations would be the same as described above, and potential impacts are considered **less than significant**.

Option 2: Modified Frontage Improvements (the Proposed Project) – (Less Than Significant Impact)

The Modified Frontage Improvements option would not generate any additional traffic and would not adversely affect the LOS of any additional roadway segments or intersections. As such, potential impacts on traffic operations would be the same as described above, and potential impacts are considered **less than significant**.

EXCEED LEVEL OF SERVICE**Significance Criteria 4.10-2: Would the project result in exceeding, either individually or cumulatively, a level of service standard established by the County General Plan and/or Community Plan for roads affected by project traffic? (Less Than Significant Impact)**

As discussed under Significance Criteria 4.10-1 above and in the cumulative analysis below, the addition of the proposed project traffic would not result in any intersections or roadway segments dropping below an acceptable level of service either directly or cumulatively. As such, the project does not result in roadways or intersections exceeding the LOS standard established by the Granite Bay Community Plan.

As a standard condition of approval, the project applicant would be required to pay traffic impact fees that are in effect for the Granite Bay area pursuant to:

- A) County Wide Traffic Limitation Zone: Article 15.28.010, Placer County Code
- B) South Placer Regional Transportation Authority (SPRTA)

The current total combined estimated fee is \$7,426 per dwelling unit equivalent (DUE). The fees were calculated using the information supplied. If the use or the square footage changes, then the fees will change. The fees to be paid shall be based on the fee program in effect at the time that the application is deemed complete.

The fees would be required to be paid prior to the issuance of any building permits and the actual fees paid would be those in effect at the time the payment occurs. Therefore, potential impacts are considered **less than significant**.

Option 1: Full Frontage Improvements – (Less Than Significant Impact)

The Full Frontage Improvements option would not generate any additional traffic and would not adversely affect the LOS of any additional roadway segments or intersections. As such, potential impacts on traffic operations would be the same as described above, and potential impacts are considered **less than significant**.

Option 2: Modified Frontage Improvements (the Proposed Project) – (Less Than Significant Impact)

The Modified Frontage Improvements option would not generate any additional traffic and would not adversely affect the LOS of any additional roadway segments or intersections. As such, potential impacts on traffic operations would be the same as described above, and potential impacts are considered **less than significant**.

VEHICLE SAFETY

Significance Criteria 4.10-3: Would the project result in increased impacts to vehicle safety due to roadway design features (i.e. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less Than Significant Impact)

The project would create a new driveway on Old Auburn Road that would serve as the access point to the project. The new driveway off of Old Auburn Road would allow full access entering and egressing the project site. An additional emergency access would be created to the project site onto Sierra College Boulevard, approximately 450 feet north of the Sierra College Boulevard/Old Auburn Road intersection. Currently, there are no obstructions within this distance of either the main driveway or emergency access driveway. **Figure 4.10-5: Old Auburn Road Sight Distance Measurement** and **Figure 4.10-6: Sierra College Boulevard Sight Distance Measurement** demonstrate the adequate sight distance is available for the project access points. Because the project generates a relatively small number of peak hour trips (9 trips in the AM peak hour and 25 in the PM peak hour), no operational issues are anticipated at the project driveways under normal conditions. Therefore, the proposed site plan for vehicular access is sufficient and potential impacts are considered **less than significant**.

Option 1: Full Frontage Improvements – (Less Than Significant Impact)

Under the Full Frontage Improvements option, the proposed project would incorporate the same project design as discussed above and incorporate the Option 1 Full Frontage Improvements for Old Auburn Road described in Chapter 3, Project Description, and shown in Figure 3-14. These improvements would meet the roadway design recommendations of the Granite Bay Community Plan and County road design standards. No potential conflicts with vehicle safety have been identified, and potential impacts are considered **less than significant**.

Option 2: Modified Frontage Improvements (the Proposed Project) – (Less Than Significant Impact)

The proposed project, under the Modified Frontage Improvements option would have the same project components as what was evaluated above and incorporate Option 2 Modified Frontage Improvements for Old Auburn Road described in Chapter 3, Project Description, and shown in Figure 3-16. These improvements would be an exception to the Granite Bay Community Plan but will still meet County road design standards. This option would meet the intent of providing additional roadway capacity but avoid sensitive habitat and minimize visual impacts. No potential conflicts with vehicle safety have been identified, and potential impacts are considered **less than significant**.

EMERGENCY ACCESS

Significance Criteria 4.10-4: Would the project result in inadequate emergency access or access to nearby uses? (Less Than Significant Impact)

The proposed project would be accessed from one access driveway on Old Auburn Road. The proposed project would also include an additional access point for use by emergency vehicles only along Sierra College Boulevard. The emergency vehicle access point would be located in the northwest corner of the project site and would connect the project site to Sierra College Boulevard. Driveway bollards (or some equivalent that meets the South Placer Fire District standards) is proposed for the emergency vehicle access from Sierra College Boulevard, which would prohibit non-emergency vehicles from using this access point. Within the project site, the proposed loop driveway would also provide adequate accessibility for emergency response. Because the proposed project would provide adequate roadway widths and multiple access points for emergency vehicles, the potential impacts are considered **less than significant** and no mitigation is required.

Option 1: Full Frontage Improvements – (Less Than Significant Impact)

The Full Frontage Improvements option would result in the same emergency access as described above. Potential Impacts are considered **less than significant**.

Option 2: Modified Frontage Improvements (the Proposed Project) – (Less Than Significant Impact)

The Modified Frontage Improvements option would result in the same emergency access as described above. Potential Impacts are considered **less than significant**.

PARKING CAPACITY

Significance Criteria 4.10-5: Would the project result in insufficient parking capacity on-site or off-site? (Less Than Significant Impact)

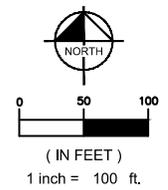
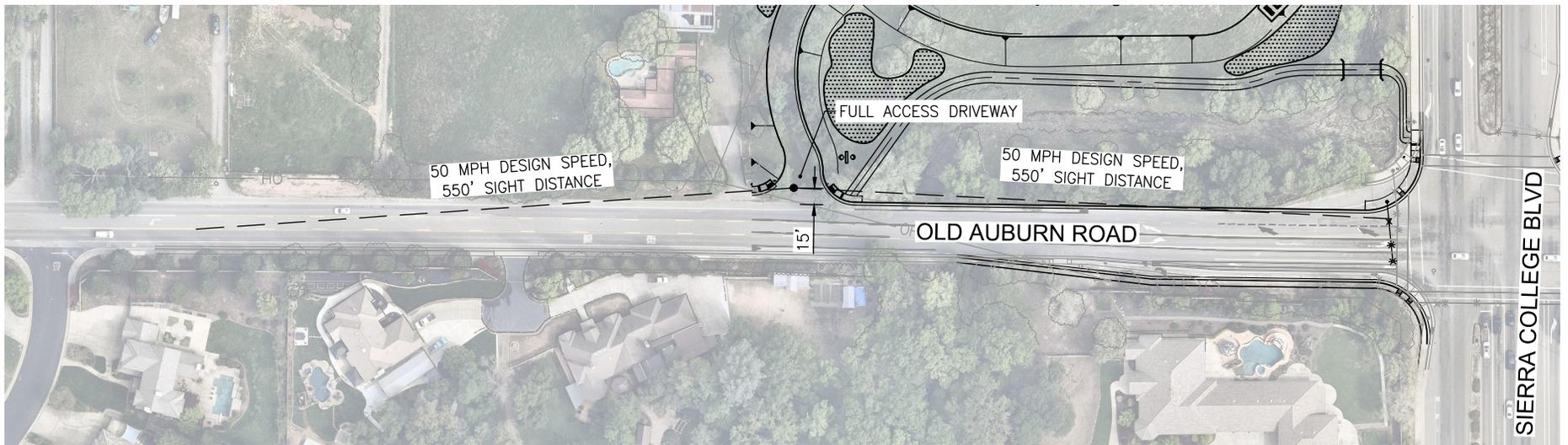
The proposed project includes 101 parking spaces including 5 accessible spaces, 28 covered spaces, and 68 open spaces that are located around the perimeter of the proposed buildings. The 28 covered spaces are provided in two detached garage buildings, each with parking for six vehicles, plus 16 carport spaces are proposed. The project meets or exceeds the County's minimum parking requirements for onsite parking. No offsite parking is required or proposed. Therefore, potential impacts are considered **less than significant**.

Option 1: Full Frontage Improvements – (Less Than Significant Impact)

The Full Frontage Improvements option would result in the same proposed parking as described above. Potential Impacts are considered **less than significant**.

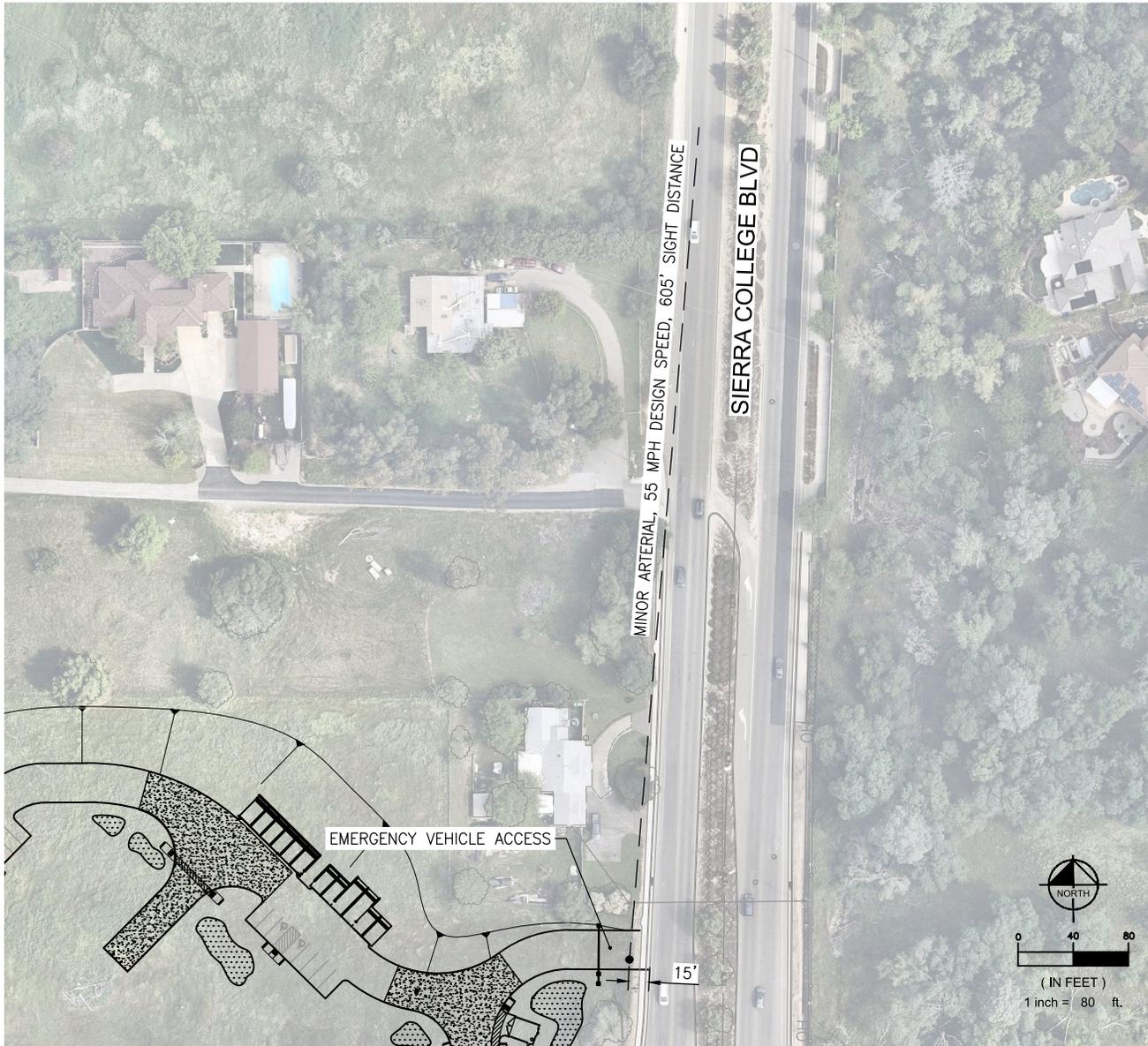
Option 2: Modified Frontage Improvements (the Proposed Project) – (Less Than Significant Impact)

The Modified Frontage Improvements option would result in the same proposed parking as described above. Potential Impacts are considered **less than significant**.



Source: Kimley-Horn., 2018

FIGURE 4.10-5: Old Auburn Road Sight Distance Measurement
 Placer Retirement Residence
 Placer County



Source: Kimley-Horn, 2018

FIGURE 4.10-6: Sierra College Boulevard Sight Distance Measurement
Placer Retirement Residence
Placer County

PEDESTRIAN AND BICYCLE HAZARDS**Significance Criteria 4.10-6: Would the project result in hazards or barriers for pedestrians or bicyclists? (Less Than Significant Impact)**

The proposed project would not cause hazards or barriers to pedestrians or bicyclists. The proposed project would include one access point along Old Auburn Road, as well as an emergency vehicle access point from Sierra College Boulevard. Along the project site, Sierra College Boulevard currently includes a bike lane, curb, and gutter. The proposed project would retain the existing sidewalk along Sierra College Boulevard. The provision of curb cuts along Sierra College Boulevard to provide emergency access to the project site would not remove or otherwise prohibit pedestrian and bicycle movement along Sierra College Boulevard. Further, the proposed project would include a pedestrian and bike path along the interior of the proposed project that would connect Sierra College Boulevard to Old Auburn Road. Paved pathways and patios would ensure pedestrian connections are maintained within the project site. Because the proposed project would not interfere with pedestrian or bicycle movement, the impact would be **less than significant** and no mitigation is required.

Option 1: Full Frontage Improvements – (Less Than Significant Impact)

The Full Frontage Improvements option would include the construction of a sidewalk and bike lane along the project frontage of Old Auburn Road. The bike lane and sidewalk would end at the western edge of the project property. No bike lane or sidewalk currently exists on the westbound side of Old Auburn Road. This option would maintain the existing bike lane and sidewalk on the eastbound side of Old Auburn Road. No hazards or barriers to pedestrians or bicyclists would occur under this option. Potential impacts are **less than significant**.

Option 2: Modified Frontage Improvements (the Proposed Project) – (Less Than Significant Impact)

This option proposes to construct a multi-purpose pathway on-site which would provide bicycle and pedestrian connectivity between Sierra College Boulevard and Old Auburn Road. This option includes widening Old Auburn to the south which would allow for the eastbound Class II bicycle lane to be striped to the intersection of Old Auburn Road and Sierra College Boulevard. It would reconstruct the sidewalk on the northwest corner to allow for better pedestrian connectivity by shortening the crossing distance. No hazards or barriers to pedestrians or bicyclists would occur under this option. Potential impacts are **less than significant**.

CONFLICTS ALTERNATIVE TRANSPORTATION PLANS

Significance Criteria 4.10-7: Would the project result in conflicts with adopted policies, plans, or programs supporting alternative transportation (i.e., bus turnouts, bicycle lanes, bicycle racks, public transit, pedestrian facilities, etc.) or otherwise decrease the performance or safety of such facilities? (Less Than Significant Impact)

The proposed project would not interfere with bicycle or pedestrian facilities. There are no bus stops along Sierra College Boulevard near the project site and neither Roseville Transit nor Placer County Transit provide bus service on Sierra College Boulevard adjacent to the project site. The Granite Bay Community Plan includes a goal of providing safe and comfortable routes for walking, cycling, and public transportation to encourage use of these modes of transportation, enable convenient and active travel as part of daily activities, reduce pollution, and meet the needs of all users of the streets. The proposed project would not conflict with any existing policies or preclude anticipated future policies, plans, or other programs supporting alternative transportation. Therefore, this impact would be **less than significant** and no mitigation is required.

Option 1: Full Frontage Improvements – (Less Than Significant Impact).

The Full Frontage Improvements option would not conflict with any existing policies or preclude anticipated future policies, plans, or other programs supporting alternative transportation. Potential impacts are considered **less than significant**.

Option 2: Modified Frontage Improvements (the Proposed Project) – (Less Than Significant Impact)

The Modified Frontage Improvements option would not conflict with any existing policies or preclude anticipated future policies, plans, or other programs supporting alternative transportation. Potential impacts are considered **less than significant**.

CHANGE IN AIR TRAFFIC PATTERNS

Significance Criteria 4.10-8: Would the project 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? (Less Than Significant Impact)

The closest public airport or private airstrip is Pruet private airfield located approximately 5.6 miles west of the project site. Because of the distance from the nearest airport, the proposed would not be expected to have any impact on air traffic patterns. Furthermore, the proposed project would not include any excessively tall buildings that could potentially impact air traffic

patterns. Therefore, the proposed project would have a **less than significant** impact on air traffic patterns and no mitigation is required.

Option 1: Full Frontage Improvements – (Less Than Significant Impact)

The Full Frontage Improvements option would not impact air traffic patterns. Potential impacts are considered **less than significant**.

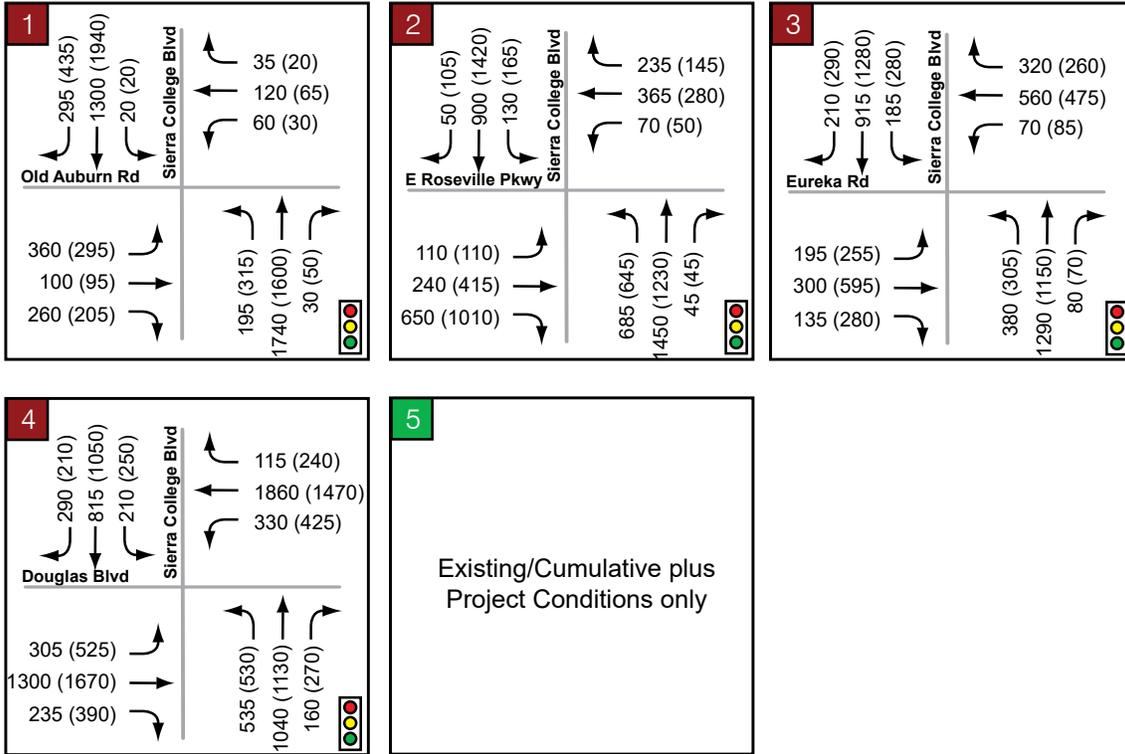
Option 2: Modified Frontage Improvements (the Proposed Project) – (Less Than Significant Impact)

The Modified Frontage Improvements option would not impact air traffic patterns. Potential impacts are considered **less than significant**.

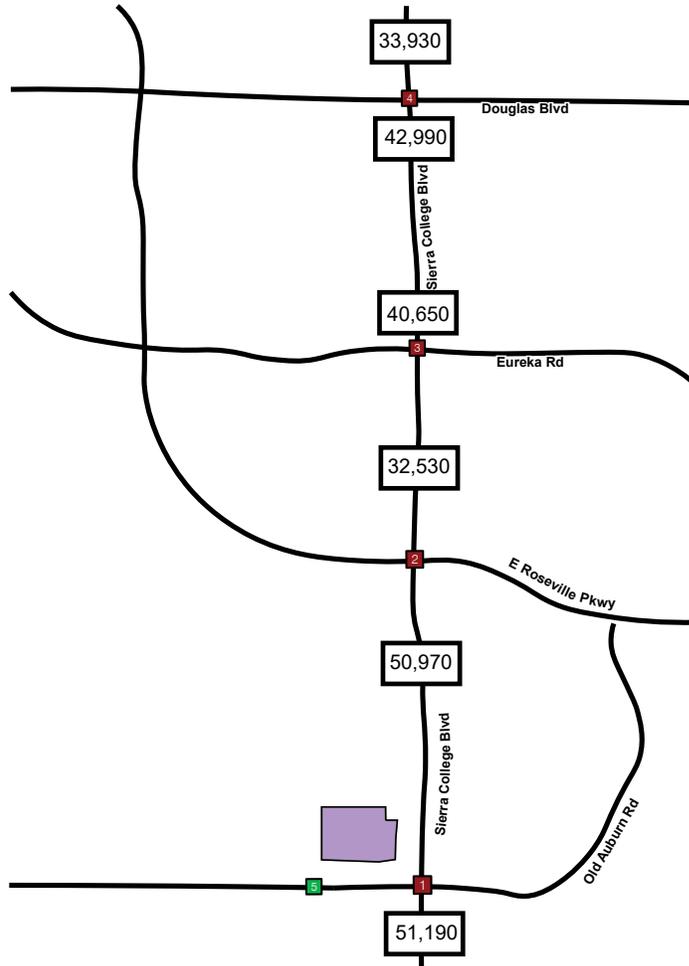
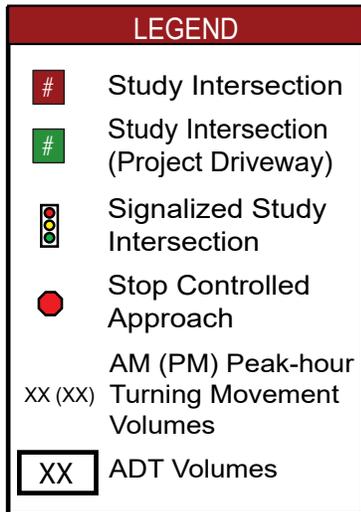
4.10.4 CUMULATIVE IMPACTS

To establish cumulative conditions, existing traffic counts from the County's Granite Bay Cumulative Traffic Study were adjusted using the Granite Bay Travel Demand Model by adding the growth between the base year and the future year to the existing traffic counts. The levels of service corresponding to the study intersections and roadway segments are presented in *Table 4.10-10: Cumulative (2036) Peak Hour Intersection Levels of Service*, and *Table 4.10-11: Cumulative (2036) Roadway Segment Levels of Service*. Cumulative peak hour traffic volumes are presented graphically in **Figure 4.10-7: Cumulative Peak Hour Traffic Volumes**.

As indicated in Table 4.10-10, the study intersections operate between LOS D and LOS E during the AM and PM peak-hour for the Cumulative Conditions.



NOT TO SCALE



Source: Kimley-Horn., 2018

FIGURE 4.10-7: Cumulative Peak-Hour Traffic Volumes
Placer Retirement Residence
Placer County

Table 4.10-10: Cumulative (2036) Intersection Levels of Service

Intersection	Control	Peak Hour	Cumulative (2036)	
			Delay (sec)	LOS
Sierra College Boulevard @ Old Auburn Road	Signal	AM	36.5	D
		PM	34.0	C
Sierra College Boulevard @ E Roseville Parkway	Signal	AM	35.5	D
		PM	37.5	D
Sierra College Boulevard @Eureka Road	Signal	AM	47.0	D
		PM	46.5	D
Sierra College Boulevard @ Douglas Road	Signal	AM	68.0	E
		PM	72.0	E

Notes: **Bold** indicates unacceptable operations. LOS Standard is C for Intersections 1,2, and 3, and E for intersection 4.

Table 4.10-11 presents the daily operating conditions for the study roadway segments. As indicated in Table 4.10-11, the study segments operate between LOS B and LOS E during a typical weekday for the Cumulative Conditions. Under cumulative conditions, it was assumed that the entirety of Sierra College Boulevard was a six-lane roadway.

Table 4.10-11: Cumulative (2036) Roadway Segment Levels of Service

Roadway	From	To	Roadway Capacity Classification	Number of Lanes	LOS Threshold	Cumulative (2036)		
						ADT	V/C Ratio	LOS
Sierra College Boulevard	Olympus Dr	Douglas Blvd	Arterial - Moderate Access Control	6 lanes	C	33,930	0.63	B
	Douglas Blvd	Renaissance Creek	Arterial - Moderate Access Control	6 lanes	C	42,990	0.80	C
	Renaissance Creek	Eureka Rd	Arterial - Moderate Access Control	6 lanes	C	40,650	0.75	C
	Eureka Rd	E Roseville Pkwy	Arterial - Moderate Access Control	6 lanes	C	32,530	0.60	B
	E Roseville Pkwy	Old Auburn Rd	Arterial - Moderate Access Control	6 lanes	C	50,970	0.94	E
	Old Auburn Rd	County Line	Arterial - Moderate Access Control	6 lanes	C	51,190	0.95	E

Note: **Bold** indicates unacceptable operations.

Cumulative Plus Proposed Project Conditions

Similar to the Existing Plus Proposed Project Conditions, the anticipated project traffic was added to the Cumulative Conditions and levels of service were determined at the study intersections and roadway segments. Traffic volumes for this analysis scenario are presented in *Table 4.10-12: Cumulative Plus Proposed Project Peak Hour Intersection Levels of Service*. The cumulative traffic volumes are shown graphically in **Figure 4.10-8: Cumulative Plus Proposed Project Peak Hour Traffic Volumes**. The addition of the project does not significantly increase the peak hour delay at any of the study intersections. Each of these intersections is anticipated to operate at LOS D or worse in the cumulative scenario without the project traffic. The addition of the project traffic does not result in the LOS to drop at any intersection. The addition of the project traffic does not result in an increase in volume to capacity ratio on any roadway segment connected to the study intersections. Therefore, the addition of the project traffic is less than cumulatively considerable and potential impacts are considered **less than significant**.

Table 4.10-13: Cumulative Plus Proposed Project Segment Levels of Service presents the peak-hour intersection and driveway operating conditions for this analysis scenario. As indicated in Table 4.10-13, the roadway segments operate from LOS B to LOS E for the Cumulative Plus Proposed Project Segment Levels of Service. In comparison to Table 4.10-11, the addition of project traffic in the cumulative scenario does not increase the volume to capacity ratio on any roadway segment and the addition of project traffic does not result in the LOS dropping on any roadway segment. Therefore, the addition of the project traffic is less than cumulatively considerable and potential impacts are considered **less than significant**.

Table 4.10-12: Cumulative Plus Proposed Project Peak Hour Intersection Levels of Service

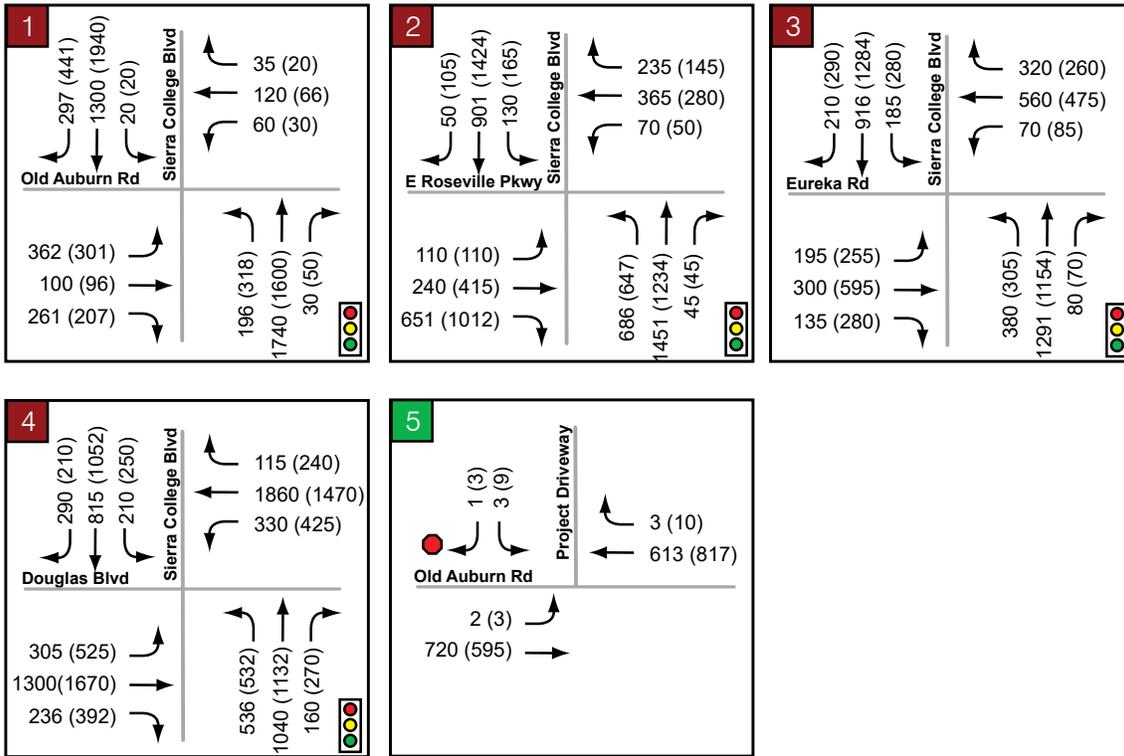
Intersection	Control	Peak Hour	Cumulative (2036)		Cumulative (2036) Plus Proposed Project	
			Delay (sec)	LOS	Delay (sec)	LOS
Sierra College Boulevard @ Old Auburn Road	Signal	AM	36.5	D	36.5	D
		PM	34.0	C	34.5	C
Sierra College Boulevard @ E Roseville Parkway	Signal	AM	35.5	D	35.5	D
		PM	37.5	D	37.5	D
Sierra College Boulevard @Eureka Road	Signal	AM	47.0	D	47.0	D
		PM	46.5	D	47.0	D
Sierra College Boulevard @ Douglas Road	Signal	AM	68.0	E	68.0	E
		PM	72.0	E	72.5	E
Old Auburn Road @ Project Driveway	TWSC	AM	-	-	14.5	B
		PM	-	-	17.0	C

Notes: **Bold** indicates unacceptable operations. LOS Standard is C for Intersections 1,2, 3, and 5, and E for intersection 4. Intersection 5 delay was calculated by taking the weighted average for movements yielding the right-of-way per the County's Methodology of Assessment.

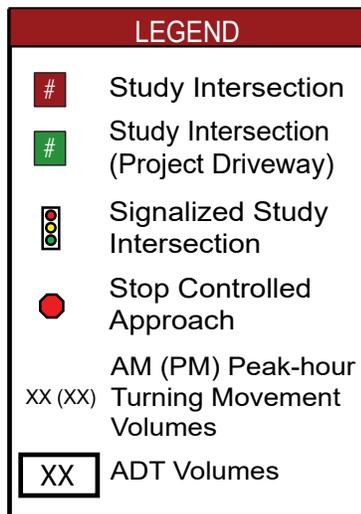
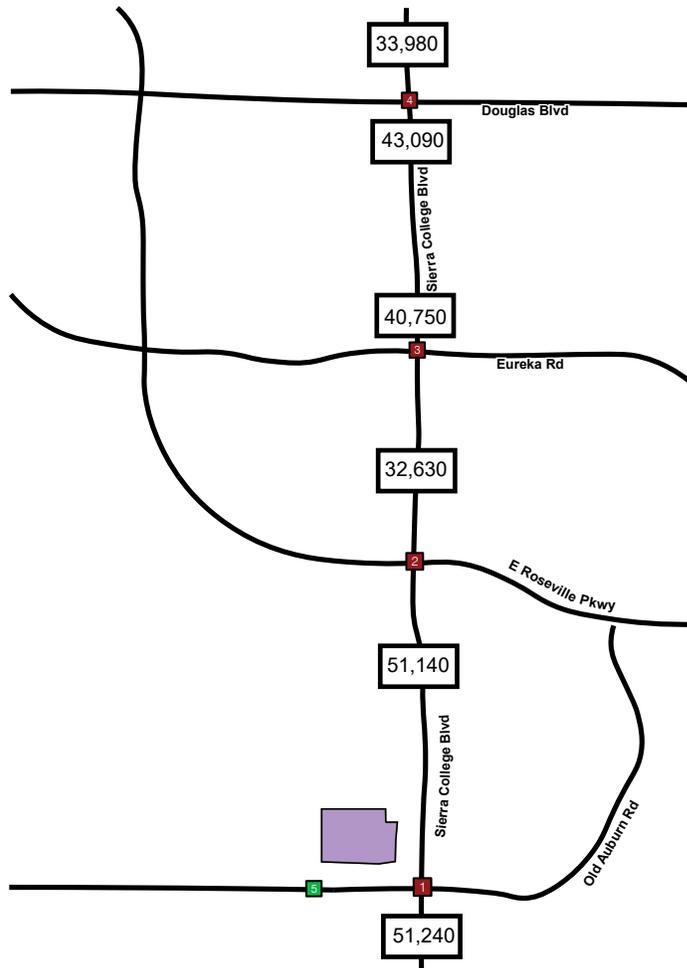
Table 4.10-13: Cumulative (2036) plus Proposed Project Segment Levels of Service

Roadway	From	To	Roadway Capacity Classification	Number of Lanes	LOS Threshold	Cumulative (2036) plus Project		
						ADT	V/C Ratio	LOS
Sierra College Boulevard	Olympus Dr	Douglas Blvd	Arterial - Moderate Access Control	6 lanes	C	33,980	0.63	B
	Douglas Blvd	Renaissance Creek	Arterial - Moderate Access Control	6 lanes	C	43,090	0.80	C
	Renaissance Creek	Eureka Rd	Arterial - Moderate Access Control	6 lanes	C	40,750	0.75	C
	Eureka Rd	E Roseville Pkwy	Arterial - Moderate Access Control	6 lanes	C	32,630	0.60	B
	E Roseville Pkwy	Old Auburn Rd	Arterial - Moderate Access Control	6 lanes	C	51,140	0.95	E
	Old Auburn Rd	County Line	Arterial - Moderate Access Control	6 lanes	C	51,200	0.95	E

Notes: **Bold** indicates unacceptable operations.



NOT TO SCALE



Source: Kimley-Horn., 2018

FIGURE 4.10-8: Cumulative Plus Proposed Project Peak-Hour Traffic Volumes
Placer Retirement Residence
Placer County

4.10.5 REFERENCES – TRAFFIC AND CIRCULATION

City of Roseville, Local Service Route Map,

<https://www.roseville.ca.us/cms/One.aspx?portalId=7964922&pageId=8756381>

County of Sacramento, Traffic Impact Analysis Guidelines. July 2004

Kimley-Horn, Placer Retirement Center, Traffic Impact Study. November 2018.

Placer County, 2012. *Granite Bay Community Plan*. July 18. Available:

<https://www.placer.ca.gov/departments/communitydevelopment/planning/documentlibrary/commpans/granitebaycp>

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