8 TRANSPORTATION AND CIRCULATION

The Transportation and Circulation chapter of the EIR discusses existing and cumulative transportation and circulation conditions associated with the Rancho Del Oro Estates Project (proposed project). The information contained within this chapter is primarily based on the *Rancho Del Oro Estates Transportation Impact Analysis* conducted by Omni-Means, Ltd. (See Appendix J),[1] the *Placer County General Plan* (PCGP),[2] and the *Granite Bay Community Plan* (GBCP).[3] The analysis includes consideration of automobile traffic impacts on roadway capacity, transit impacts, bicycle impacts, and pedestrian impacts.

All impacts in the Rancho Del Oro Estates Initial Study were identified as *potentially significant* and are therefore addressed within this chapter (See Appendix C).

8.1 ENVIRONMENTAL SETTING

The proposed project would consist of 89 new residential units on a single 119.4-acre, vacant parcel located off of Olive Ranch Road in the community of Granite Bay within Placer County, California. The existing roadway, bicycle, pedestrian, and transit transportation systems within the study area are described below.

Roadway System – Regional Access

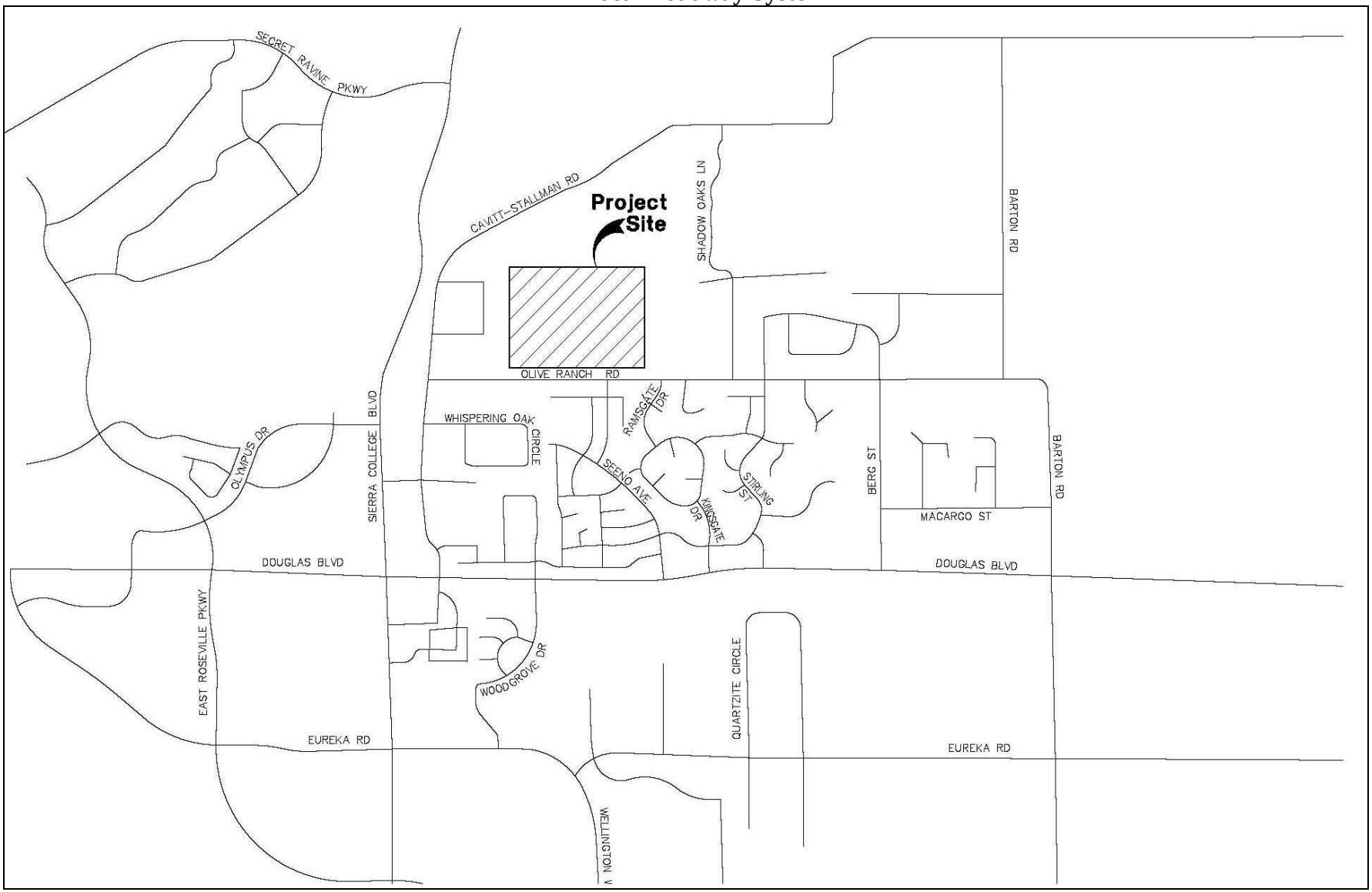
Interstate 80 (I-80) is an east-west freeway located approximately 1.5 miles north-northwest of the site. Primary access to I-80 is via Douglas Boulevard, described below. To the west, I-80 provides access to West Sacramento, the City of Davis, and the San Francisco Bay Area. To the east, I-80 provides access to northern portions of Granite Bay and Placer County, and extends through the County and the State of Nevada.

State Route 65 (SR 65) travels in a north-south direction and links the cities of Lincoln and Marysville to I-80 and local communities. The southern terminus of SR 65, where SR 65 intersects northward from I-80, is approximately two miles north of the project site.

Roadway System – Local Access

Located just east of the City of Roseville's city limits, the following roadways provide the primary local circulation pattern within the project site vicinity: Douglas Boulevard, Sierra College Boulevard, Barton Road, and Olive Ranch Road. The roadway system of the project site is shown in Figure 8-1.

Figure 8-1
Local Roadway System



Douglas Boulevard

Douglas Boulevard is a major arterial road that connects both the east and west areas of the City of Roseville to Granite Bay and to I-80. The boulevard begins in downtown Roseville and traverses east beyond I-80 and terminates at Folsom Lake located in Granite Bay. East of I-80, Douglas Boulevard is primarily a six-lane major arterial with channelized turn lanes to Sierra College Boulevard. Beyond Sierra College Boulevard, Douglas Boulevard is a four lane arterial with a center median and turn channelization (towards Auburn Folsom Road).

Sierra College Boulevard

Sierra College Boulevard is a major north-south arterial, which begins at the Lincoln Newcastle Highway (SR 193) and traverses south beyond Highway 50 (Hwy 50) in Sacramento County. As Sierra College Boulevard enters into Sacramento County, the road turns into Hazel Avenue. In the project vicinity, Sierra College Boulevard has four to six lanes, with channelized left-turns at most major intersections. Planned improvements included within the Placer County 2027 Regional Transportation Plan (RTP), call for expanding Sierra College Boulevard to a full six lane arterial from north of Douglas Boulevard to the Sacramento County line.

Barton Road

Barton Road is a north-south facility that crosses the Sacramento/Placer County line and continues traveling northward across Douglas Boulevard to a terminus at Brace Road. In the project vicinity, Barton Road is predominantly a two-lane collector road.

Olive Ranch Road

Olive Ranch Road is a two-lane facility that traverses in an east-west direction that provides connectivity between Cavitt-Stallman Road and Barton Road. The road provides primary access to the project site.

Cavitt-Stallman Road

Cavitt-Stallman Road is a two-lane facility that traverses in a general northeast to southwest direction that provides connectivity between major arterial roadways and other collector roadways in the County. The road serves to provide access to Olive Ranch Road.

Project Study Area Intersections and Roadways

For traffic analysis purposes, a set of intersections and roadway segments were selected for analysis based on the anticipated volume of project traffic, the distributional patterns of project traffic, and known locations of operational difficulty. The following intersections are included for weekday AM and PM peak hour conditions analysis:

Study Intersections

1. Olive Ranch Road / Cavitt-Stallman Road;
2. Olive Ranch Road / Ramsgate Drive;
3. Olive Ranch Road / Barton Road;
4. Cavitt-Stallman Road / Sierra College Boulevard;
5. Douglas Boulevard / Sierra College Boulevard;
6. Douglas Boulevard / Cavitt-Stallman Road;
7. Douglas Boulevard / Seeno Avenue;
8. Douglas Boulevard / Kingsgate Drive;
9. Douglas Boulevard / Barton Road;
10. Olive Ranch Road / Project Western Driveway (Only analyzed under Existing Plus Project condition); and
11. Cavitt-Stallman Road / Bowman Place (Only analyzed under Existing Plus Project Plus Bayside Church Expansion Plus the Grove at Granite Bay Project condition).

Study Roadway Segments

1. Olive Ranch Road between Cavitt-Stallman Road and Barton Road;
2. Seeno Avenue north of Douglas Boulevard;
3. Kingsgate Drive north of Douglas Boulevard;
4. Ramsgate Drive south of Olive Ranch Road; and
5. Briar Avenue south of Olive Ranch Road.

Existing Levels of Service

The Level of Service (LOS) is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment, with progressively worsening traffic operations (LOS F represents over capacity and/or forced flow conditions).

The existing, delay-based LOS criteria for different types of intersection controls are outlined in Table 8-1, while the roadway average daily traffic-based (ADT-based) LOS for roadways are shown in Table 8-2.

Existing Conditions (without Project)

Traffic Volumes

The existing lane configurations of the study intersections are illustrated in Figure 8-2 and the existing AM and PM peak hour traffic volumes are shown in Figure 8-3. Detailed traffic count data is contained in the Rancho Del Oro Traffic Impact Analysis Report included as Appendix J of this DEIR.

Table 8-1
LOS Criteria – Signalized Intersections

Level of Service (LOS)	Description	Stopped Delay/Vehicle (sec)		
		Signalized	Un-signalized	All-Way Stop
A	Very low control delay. Occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	≤ 10.0	≤ 10.0	≤ 10.0
B	Generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS "A," causing higher levels of average delay.	> 10.0 and ≤ 20.0	> 10.0 and ≤ 15.0	> 10.0 and ≤ 15.0
C	These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.	> 20.0 and ≤ 35.0	> 15.0 and ≤ 25.0	> 15.0 and ≤ 25.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	> 35.0 and ≤ 55.0	> 25.0 and ≤ 35.0	> 25.0 and ≤ 35.0
E	These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.	> 55.0 and ≤ 80.0	> 35.0 and ≤ 50.0	> 35.0 and ≤ 50.0
F	This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	> 80.0	> 50.0	> 50.0

Source: Transportation Research Board, Highway Capacity Manual, Special Report No. 209, 2000.

Table 8-2
LOS Criteria for Roadway Segments

	Maximum Daily Traffic Volume Per Lane				
	Level of Service				
Roadway Type	**A**	**B**	**C**	**D**	**E**
Two-Lane Divided Arterial	11,000	12,500	14,500	16,000	18,000
Two-Lane Undivided Arterial	9,000	10,500	12,000	13,500	15,000
Four-Lane Collector	12,000	15,000	18,000	21,000	24,000
Two-Lane Collector	6,000	7,500	9,000	10,500	12,000
Two-Lane Residential Collector with Frontages	1,600	3,200	4,800	6,400	8,000
Two-Lane Residential/Local	600	1,200	2,000	3,000	4,500

Note: All volume thresholds are approximate and assume ideal roadway characteristics. Actual thresholds for each LOS listed above may vary depending on a variety of factors including, but not be limited to, roadway curvature and grade, intersection or interchange.

Source: Transportation Research Board, Highway Capacity Manual, 4th Edition, 2000.

Figure 8-2
Lane Geometries and Control for Project Study Area

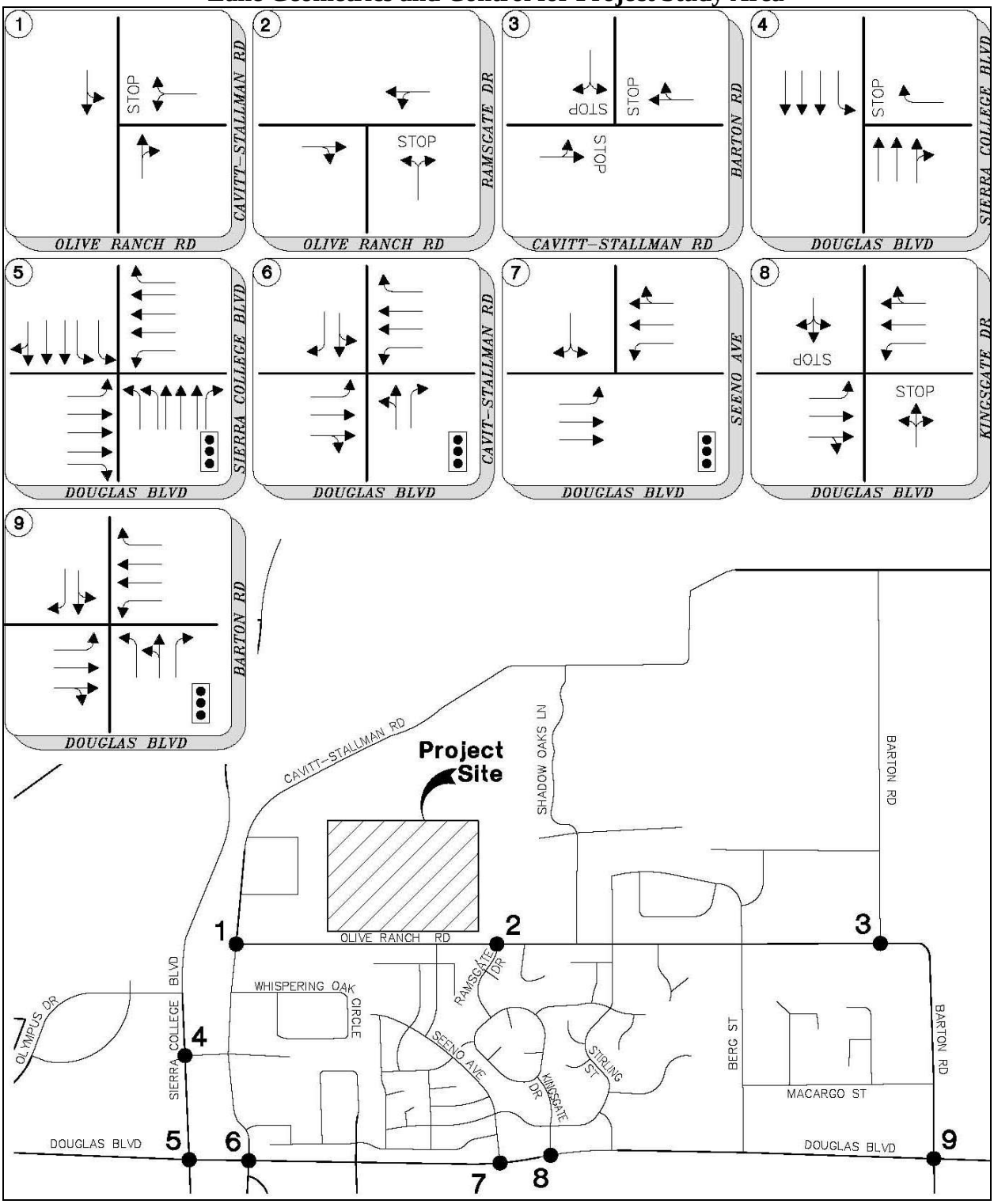
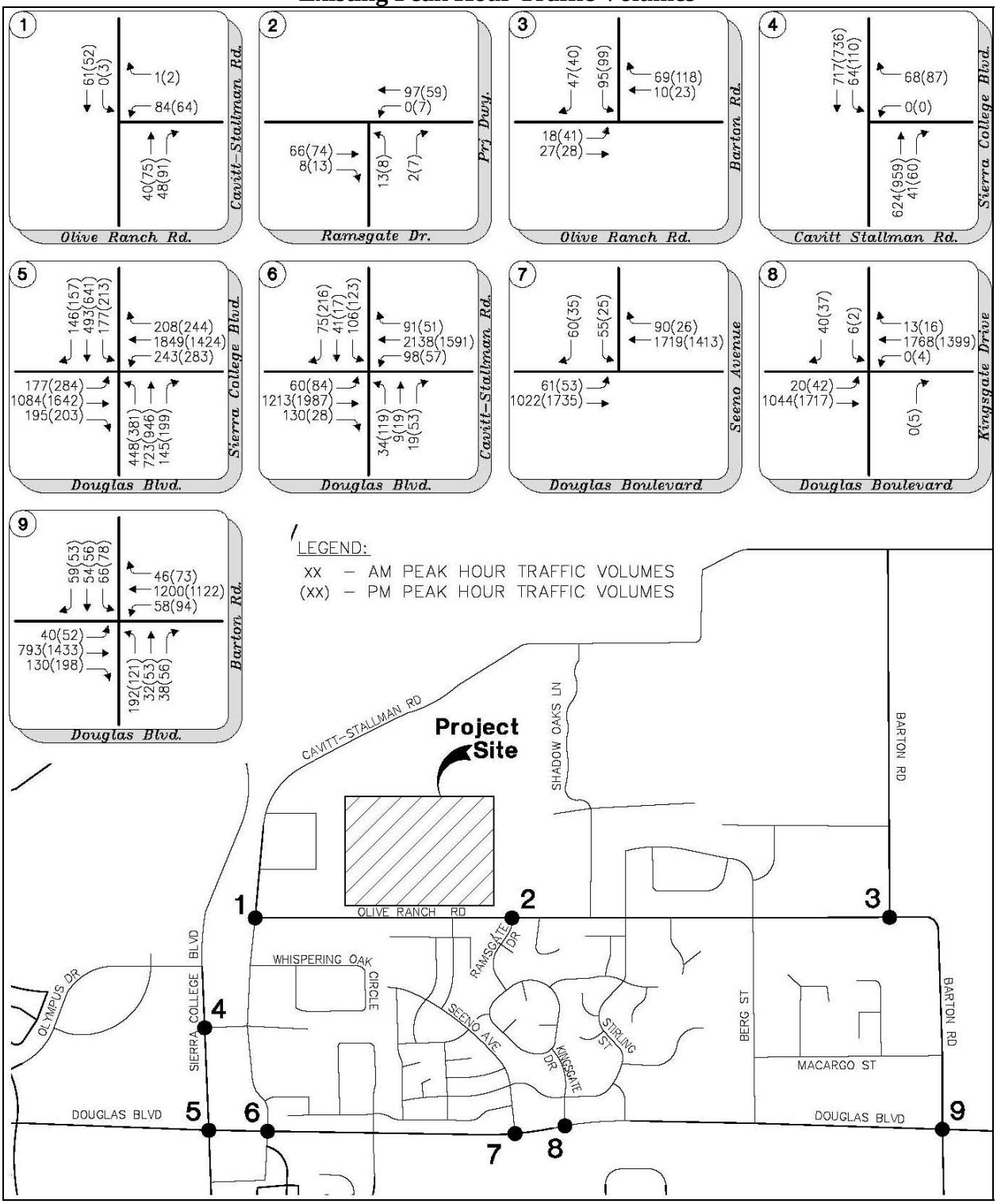


Figure 8-3
Existing Peak Hour Traffic Volumes



Intersections

A summary of the existing weekday AM and PM peak hour intersection LOS conditions is presented in Table 8-3.

Roadway Segments

The existing weekday operating conditions of the roadway segments are shown in Table 8-4. As shown in Table 8-4, all study area roadway segments are operating at an acceptable LOS that meets or exceeds the County's target LOS of "C."

Existing Transit System

Placer County Transit (PCT) provides five bus routes and a dial-a-ride service within the County. Of the five PCT bus routes, none operate on Olive Ranch Road. The closest transit route to the project location is operated by Roseville Transit. Bus routes E and G of Roseville Transit operate at the intersection of Sierra College Boulevard and Douglas Boulevard. Both bus routes begin at the Sierra Gardens transfer point, as illustrated in Figure 8-4. Route E operates on Saturdays between 8:45 AM and 4:45 PM, with service provided every hour. Route G operates Monday through Friday between 6:18 AM and 6:18 PM, with service being provided every hour. On Saturday, the route operates between 8:18 AM and 5:18 PM, with service being provided every hour.

Other local and regional inter-city transit services available within Granite Bay and greater Placer County include the following:

- Placer Commuter Express is a ticket-based bus service traveling along the I-80 corridor from Colfax into Downtown Sacramento.
- Dial-A-Ride is a demand-response transportation system providing curb-to-curb service to the general public six days a week (excluding Sunday) in the communities of Auburn (SR 49) and Rocklin/Loomis, and five days a week (Monday through Friday) for the Granite Bay community.

Existing Pedestrian System

In order to preserve the scenic and country setting, the majority of the roadways in the Granite Bay Community do not have sidewalks, curbs, or gutters. Exceptions to the no sidewalk regulations exist for areas with parcel sizes less than 0.9 acres or along Douglas Boulevard. Meandering paths and paved shoulders take the place of sidewalks, while roadside ditches provide local drainage along roadsides of scenic and country roadways. The neighborhoods located to the southeast of the project site include sidewalks that ultimately lead pedestrians south to Douglas Boulevard. However, the majority of Olive Ranch Road does not contain existing sidewalks or pathways. Limited use of sidewalks is also included along Cavitt-Stallman Road southward to Douglas Boulevard.

Table 8-3
Existing Conditions: Intersection LOS

#	Intersection	Control Type (Analysis Methodology)	Delay Methodology	Target LOS	AM Peak Hour			PM Peak Hour		
					Delay or V/C	LOS	Warrant Met?	Delay of V/C	LOS	Warrant Met?
1	Olive Ranch Road / Cavitt-Stallman Road	TWSC* (2000 HCM)	Stop-Controlled	C	9.7	A	--	10..0	A	--
			Average		3.5	A	--	2.4	A	--
2	Olive Ranch Road / Ramsgate Drive	TWSC* (2000 HCM)	Stop-Controlled	C	9.5	A	--	9.2	A	--
			Average		0.8	A	--	1.1	A	--
3	Olive Ranch Road / Barton Road	AWSC (2000 HCM)	Average	C	7.8	A	--	8.1	A	--
4	Cavitt-Stallman Road / Sierra College Boulevard	TWSC* (2000 HCM)	Stop-Controlled	C	10.4	B	--	12.3	B	--
			Average		0.9	A	--	1.2	A	--
5	Douglas Boulevard / Sierra College Boulevard	Signal (Circular 212)	Average	E	0.825	D	--	0.860	D	--
6	Doulas Boulevard / Cavitt-Stallman Road	Signal (Circular 212)	Average	E	0.869	D	--	0.813	D	--
7	Douglas Boulevard / Seeno Avenue	Signal (Circular 212)	Average	E	0.681	B	--	0.587	A	--
8	Douglas Boulevard / Kingsgate Drive	TWSC* (2000 HCM)	Stop-Controlled	E	72.7	F	--	43.8	E	--
			Average		1.3	A	--	0.8	A	--
9	Douglas Boulevard / Barton Road	Signal (Circular 212)	Average	E	0.581	A	--	0.749	C	--

Notes:
1) TWSC = Two-Way Stop Control (LOS and delay are based on LOS and delay for worst approach).
2) AWSC = All-Way Stop Control (LOS and delay are based on average intersection delay).
3) Warrant = Based on California MUTCD Warrant 3.
4) * = TWSC intersections are measured by "average" delay LOS.

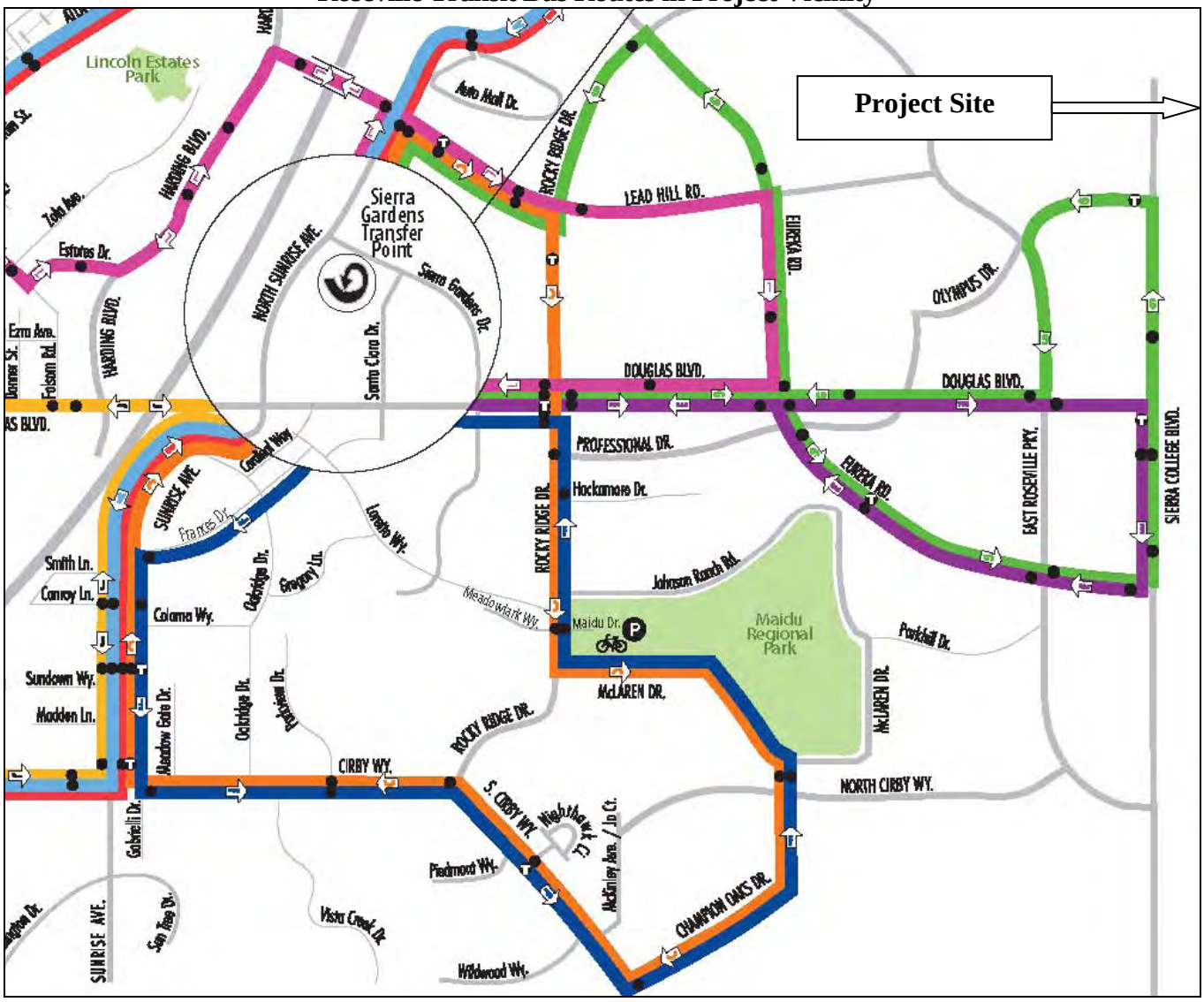
Source: Omni-Means, Ltd., Rancho Del Oro Estates Project TIAR, 2009.

Table 8-4
Existing Conditions: LOS of Study Roadway Segments

	Roadway Segment	Capacity Configuration	Target LOS	ADT	LOS
1	Olive Ranch Road – between Cavitt-Stallman Road and Barton Road	Two-lane Residential Collector with Frontages	C	2,062	B
2	Seeno Avenue – north of Douglas Boulevard	Two-lane Residential Collector with Frontages	C	2,062	B
3	Kingsgate Drive – north of Douglas Boulevard	Two-lane Residential Collector with Frontages	C	1,029	A
4	Ramsgate Drive – south of Olive Ranch Road	Two-Lane Residential/Local	C	211	A
5	Briar Way – south of Olive Ranch Road	Two-Lane Residential/Local	C	683	B

Source: Omni-Means, Ltd., Rancho Del Oro Estates Project TIAR, 2009.

Figure 8-4
Roseville Transit Bus Routes in Project Vicinity



Legend:

Route E =

Route G =

Note: Map is not drawn to scale.

Source: Roseville Transit Website, 2009.

Existing Bicycle System

The PCGP provides policy direction for the development of bikeways within the County; however, the guiding documents for bikeways (existing and planned) are under the guidance of the *Placer County Bikeways Master Plan*. The Bikeway Master Plan for Placer County provides planned improvements and design guidelines, including signage and traffic device controls to the regional bikeway system. Bikeways fall into one of several classes of design, primarily differentiated by the specific purpose and degree of separation from motorized vehicles. A description of each bicycle class is provided in Table 8-5 below.

Table 8-5
Granite Bay On-Road Bikeway Class Descriptions

Class	Description of Bikeway Class
Class I	A completely separated facility designed for the exclusive use of bicycles and pedestrian with minimal cross flows by motorists. Caltrans standards call for Class I bikeways to have eight feet of pavements with two foot graded shoulders on either side. Class I bikeways must also be at least five feet from the edge of a paved roadway.
Class II	Provides a restricted right-of-way (ROW) designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicular parking and cross flows by pedestrians permitted. Caltrans standards require a four foot bike lane with a six-inch white stripe separating the bike lane from the roadway.
Class III	Provides a ROW designated by signs or permanent markings and shared with pedestrians and motorists. Roadways designated as Class III bikeways should have sufficient width to accommodate motorists, bicyclists, and pedestrians. The street sign is the only special marking requirement for a Class III bikeway.

Source: Omni-Means, Ltd., Rancho Del Oro Estates Project TIAR, 2009.

The following bikeways are in the immediate vicinity of the project site and are therefore analyzed for potential impacts from project implementation:

- Douglas Boulevard – Class II Bikeway;
- Sierra College Boulevard – Class II Bikeway; and
- Barton Road – Class III Bikeway.

8.2 REGULATORY SETTING

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

Local Regulations

Granite Bay Community Plan

The GBCP provides the following goals and policies related to transportation and circulation.

Public/Quasi Public Services Element

Circulation

Goal 1 To provide a 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 bicycle traffic.

Policy 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.

Policy 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.

Policy 3 The 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 level of service shall be LOS "E" or better during the A.M. and/or P.M. peak hour.

Policy 4 The intersection of Douglas Boulevard and Sierra College Boulevard shall have a LOS of "E" or better. The County shall work towards providing LOS E at this location until all reasonable improvements (three through lanes, two left turn lanes, and a separate right turn lane on all approaches) are made. It is recognized that after all reasonable improvements have been made that the LOS may become worse than LOS "E" during the A.M. and/or P.M. peak hour.

Policy 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
b. improvements funded by the capital improvement program (CIP) have been constructed. (This will result in temporary slippage of the LOS below the adopted standards until adequate funding has been collected for the construction of CIP improvements.)

Policy 7 "Through" traffic that must pass through the community shall be accommodated in a manner that will not encourage the use of residential or private roads. Through traffic shall be directed to Douglas Boulevard, Auburn-Folsom Road and Sierra College Boulevard. These routes provide access to Folsom Lake from all directions, and provide a through north-south route as well as a west-south route.

Policy 9 Street lights, traffic signals and signs should be used only where essential or practical for safety purposes or for efficient traffic flow.

Policy 11 Scenic or conservation easements over properties adjacent to the roadway shall be a condition of approval of new development on designated scenic or country roadways to ensure preservation of a vista from the road and to preserve the natural, rural character of the community.

Policy 13 Meandering paths, separated from the roadway, shall be used in lieu of sidewalks in all developments with a parcel size of 0.90 acres or more and shall be encouraged in developments with parcel sizes of 0.4 acres or more.

Policy 15 Gated subdivisions shall not be allowed unless there are significant extenuating circumstances. New subdivisions shall include roadway connections to adjacent subdivisions or provisions to connect to adjacent vacant lands subject to development. Gated subdivisions that are allowed shall incorporate provision for emergency service providers to operate the gates automatically from the emergency service vehicle.

Policy 16 Regional bikeways shall facilitate travel between communities and provide access to parks. Regional bikeways shall be located on or along collector or arterial roads. County, state or federal funds or private grants shall be sought for construction or regional bikeways.

Policy 17 Local bikeways shall supplement regional bikeways by linking development and parts of the community for safe and enjoyable circulation within the community and to access the regional bikeway system.

Policy 18 Designated scenic or country roadways shall be established and shall have specific development rules to maintain their scenic and country qualities.

Policy 19 Roadway surfacing shall be performed in accordance with accepted pavement management strategies within the guidelines for scenic and country roadways and the constraints of limited financial resources.

Policy 24 The Community's desire to retain the character of the country roadways and the design guidelines for country roadways shall be earnestly considered when designing improvements to arterial or collector roads designated as country roadways. The County shall strive for a balance between local community desires and engineering solutions and shall present proposed designs to the community for review prior to approval. Upgrades made to minor arterial and collector roads designated as country roadways should be limited to critical safety issues and sufficient shoulder for cyclists and pedestrians.

Goal 2 A naturally scenic community trails system for non-motorized multiple use shall be funded, constructed and maintained. It shall foster safe, pleasant, and convenient commuting and recreational opportunities.

Policy 14 All designated scenic and country roads shall have sufficient right of way to accommodate a trail.

Policy 17 The County shall develop a plan to implement trail, bike lane and sidewalk improvements along scenic and country roadways where gaps in those facilities exist as a result of piecemeal development and where the likelihood of development of the gaps is remote, or the need to complete the amenities ahead of development is identified.

Goal 3 Local and inter-area public and private transit shall be encouraged and transportation systems management strategies shall be applied to reduce peak-period traffic, total vehicle miles traveled, reduce impact on air quality, improve level of service, and improve safety.

Policy 7 During the development review process, the County shall require that land development projects meet adopted trip reduction ordinance requirements.

Goal 4 A Capital Improvement Program (CIP) and other funding mechanisms shall be developed to provide for the transportation system.

Policy 3 Capital improvements shall be undertaken in response to development of the area.

Policy 4 On-site and "frontage" improvements of land development projects shall be required as a condition of approval for all land development projects.

Policy 5 Traffic mitigation fees to fund the CIP described in this Plan shall be required as a condition of approval for all land development projects within the Plan area.

Policy 6 Improvements that enhance safety shall be given a high priority. After considering community recommendations, the Placer County Board of Supervisors shall determine priority and scheduling of projects from the CIP.

Policy 7 All new traffic signals or modifications to existing traffic signals shall incorporate emergency vehicle preemption.

Policy 8 The County shall develop and administer a CIP that implements the prioritized trails and Class I paths included in the Community Plan.

8.3 Impacts and Mitigation Measures

The standards of significance, methods of analysis, traffic impacts, and recommended mitigation measures for the proposed project are summarized below.

Standards of Significance

In accordance with the California Environmental Quality Act (CEQA), the effects of a project are evaluated to determine if the effects would result in a significant adverse impact on the environment. For the purposes of this DEIR, an impact is considered significant if the proposed project 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 PCGP and/or the GBCP for roads affected by project traffic (See LOS Thresholds section below);
- Increased impacts to vehicle safety due to roadway design features (i.e. sharp curves or dangerous intersection) 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 supporting alternative transportation (i.e. bus turnouts, bicycle racks); or
- Change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

LOS Thresholds

The following LOS thresholds are applicable to the subject intersections within the project vicinity. According to the PCGP, the County shall develop and manage its roadway system to maintain the following minimum standards:

- LOS C on rural roadways, except within one-half mile of State highways where the standard shall be LOS D;
- LOS C on urban/suburban roadways except within one-half mile of State highways where the standard shall be LOS D; and
- Average delay is used at Two-Way Stop-Controlled intersections which accounts for impacts at all intersection approaches and is consistent with the analysis for signalized and All-Way Stop-Controlled intersections.

Per the GBCP EIR 2005 Update, Douglas Boulevard west of Auburn-Folsom Boulevard is permitted to operate at LOS E or better. Based on these guidelines, LOS C shall be taken as the minimum acceptable LOS for all study intersections with the exception of the intersections on Douglas Boulevard for which the acceptable LOS will be taken as LOS E. The analysis included within Appendix J includes mitigations and recommendations for all intersections and project driveways projected to operate at an unacceptable LOS.

Method of Analysis

A comparison of five project-related scenarios to the standards of significance was conducted to determine if any negative impacts to the neighboring transportation and circulation system would occur as a result of project implementation. The following five scenarios included in the quantitative transportation analyses are discussed in detail within the Project-Specific Impacts and Mitigation Measures section below:

- Existing Conditions (without project);
- Existing Plus Project Conditions;

- Existing Plus Project and Bayside Church Expansion/Grove at Granite Bay Project Conditions;
- Cumulative Year 2025 without Project Conditions; and
- Cumulative Year 2025 with Project Conditions.

The Cumulative Year 2025 without Project Conditions scenario and the Cumulative Year 2025 with Project Conditions have been included under the Cumulative Impacts discussion within Chapter 16, Cumulative Impacts and Other CEQA Sections, of this Draft EIR. Therefore, the analysis included below pertains to the following three project scenarios: (1) Existing Conditions (without project); (2) the Existing Plus Project Conditions; and (3) the Existing Plus Project and Bayside Church Expansion/Grove at Granite Bay Project Conditions.

A Modified Site Access Analysis is also included within Appendix J and addressed below. The Modified Site Access Analysis evaluates potential impacts generated from relocating the easternmost access point of the project site.

As stated earlier, all impacts in the Rancho Del Oro Estates Initial Study were identified as *potentially significant* and are therefore addressed within this chapter.

Analysis Methodologies

The following analysis methodologies were established in coordination with Placer County and were utilized for the traffic analysis contained within Appendix J of the DEIR.

- Signalized intersections were analyzed using the methodology contained in the *Interim Materials on Highway Capacity – Circular 212 Operations (Transportation RESEARCH Board, 1980).* This methodology determined the intersection LOS by computing the critical volume to capacity (v/c) ratio at the intersection;
- The *2000 Highway Capacity Manual* (HCM) was used to analyze unsignalized intersections, both Two-Way and All-Way Stop-Controlled intersections. The delay values reported for a Two-Way Stop-Controlled intersection were based on the delay experienced by the worst approach. Delay values reported for All-Way Stop-Controlled intersections were based on the average delay experienced at the intersection.
- The *Traffix 8.0 (Dowling & Associates)* integrated computer software program was used to implement the Circular 212 and HCM-2000 analysis methodologies as listed above.

It should be noted that a general Peak Hour Factor (PHF) of 0.92 is applied in the analysis of all study intersections (including those presented in Chapter 16 of the Draft EIR), as recommended by HCM-2000, under all analysis scenarios presented above.

In addition to the abovementioned traffic analysis methodologies, the existing weekday AM and PM peak hour intersection traffic operations were quantified utilizing the existing intersection lane geometrics and the existing traffic volumes.

Peak Hour

The AM peak hour is defined as one hour of peak traffic flow counted between 7:00 AM and 9:00 AM, while the PM peak hour is defined as one hour of peak traffic flow between 4:00 PM and 6:00 PM. The intersection and 24-hour roadway segment traffic counts were obtained by Omni-Means, Ltd. on the dates displayed in Table 8-6.

Table 8-6
Dates of Collected Intersection/Roadway Segments Data for Rancho Del Oro Estates Project

Intersections	**Date(s)**
1, 3, 4, and 9	July 1-4, 2008
2, 7, and 8	July 14, 2008
5 and 6	Obtained by Omni-Means, Ltd. during previous study in April 2007
Roadway Segment	**Date(s)**
1	July 2008
2, 3, 4, and 5	January 2009

Source: Omni-Means, Ltd., Rancho Del Oro Estates Project TIAR, 2009.

Level of Service (LOS) Methodologies

Field reconnaissance was undertaken to ascertain the traffic control characteristics of each of the study area intersections and roadway segments. Determination of roadway operating conditions is based upon comparison of known or projected traffic volumes, during peak hours to roadway capacity. LOS are based largely on travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, delay, and operating costs. Traffic operations were quantified through the determination of the LOS for each study intersection. The LOS analysis was conducted for the identified study intersections and roadway segments for weekday AM and PM peak hours identified under the Existing Setting sections of this chapter.

Intersection Analysis

Based upon the abovementioned guidelines, a LOS "C" shall be used as the minimum acceptable LOS for all study intersections of the proposed project, except for Douglas Boulevard, west of Auburn-Folsom Boulevard, which is permitted to operate at a LOS "E" of better.

Project Trip Generation

The projected trip generation of the proposed project has been estimated utilizing formulas from the Institute of Transportation Engineers (ITE) Publication, *Trip Generation, Seventh Edition*. Outlined in Table 8-7 is the trip generation estimates of the proposed project for the weekday AM and PM peak hour (from 7 to 9 AM and 4 to 6 PM, respectively).

As shown in Table 8-7, the proposed project would be expected to generate 934 new daily trips, of which 72 trips are expected to occur during the AM peak hour and 97 during the PM peak hour.

Table 8-7
Project Trip Generation

ITE Land Use Category (ITE Code)	Unit	Weekday Daily Trip	Weekday AM Peak (Rate/unit)			Weekday PM Peak (Rate/Unit)		
			Total	In	Out	Total	In	Out
Single-family Detached Housing (210)	Per d.u.	10.49	0.81	25%	75%	1.07	63%	37%
Land Use Description	**Quantity**	**Weekday Daily Trips**	**Weekday AM Peak Hour Trips**			**Weekday PM Peak Hour Trips**		
			Total	In	Out	Total	In	Out
Rancho Del Oro – Single-Family Homes	89	934	72	18	54	95	60	35
Net New Trips Generated		934	72	18	54	95	60	35

Note:
d.u. = density unit

Source: Omni-Means, Ltd., Rancho Del Oro Estates Project TIAR, 2009.

Roadway Segment Analysis

The roadway segment data was compiled and quantified by utilizing the existing roadway ADT volumes and existing roadway capacity configurations listed under the Existing Setting section of this chapter.

Traffic Signal Warrants

A supplemental traffic signal "warrant" analysis was completed to determine whether "significance" should be associated with unsignalized intersection operations. The methods and results of the supplemental signal "warrant" analysis is included within the Rancho Del Oro Estates Transportation Impact Analysis Report included as Appendix J. The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the need for installation of a traffic signal at an unsignalized intersection(s). The supplemental study employed the signal warrant criteria presented in the latest edition of the California Manual on Uniform Traffic Control Devises (MUTCD) for all study intersections for the project site and vicinity. The signal warrant criteria are based upon several factors, including the volume of vehicular and pedestrian traffic, frequency of accidents, and location of nearby school areas.

The California MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met; specifically, the supplemental analysis utilized the peak hour volume-based Warrant 3 as one representative type of traffic signal warrant analysis. For the proposed project, a signal warrant analysis was completed for all intersections projected to operate at unacceptable levels for each development scenario.

Technical Analysis Parameters

The following analysis provides a "planning level" evaluation of traffic operating conditions, which is considered sufficient for CEQA purposes. The "planning level" evaluation incorporates appropriate heavy vehicle adjustment factors, peak hour factors, and signal lost-time factors, and reports the resulting intersection delays and LOS as estimated using HCM-2000 and Circular 212 based analysis methodologies. A Peak Hour Factor (PHF) of 0.92 was applied in the analysis of all intersections under all analysis scenarios, per HCM-2000 recommended practice for urban areas.

The *Traffix 8.0* (Dowling Associates) software program was used to implement the HCM-2000 analysis methodologies. A "design level" evaluation (including queuing on intersection lane groups, stacking length requirements, coordinated signal operations analyses etc.) was not included in this planning-level study.

Existing Plus Project Conditions

The Existing Plus Project conditions scenario analyzes traffic impacts by superimposing project-generated traffic onto the existing traffic volumes.

Project Trip Distribution

Trip distribution patterns of the proposed project were based on previous traffic studies conducted in the area and supplemented by existing traffic flow patterns, area demographics, geographical location, and destination locations of the area. The projected inbound and outbound project trip distribution patterns are presented in Figures 8-5 and 8-6. Project only traffic volumes were derived by distributing the projected trip generation rates according to the distribution patterns outlined in Figures 8-5 and 8-6. The resulting Project Only AM and PM peak hour traffic volumes at all study intersections are shown in Figure 8-7.

Existing Plus Project Operations

The Existing Plus Project conditions were simulated by adding the existing intersection traffic volumes (Figure 8-3) to the predicted traffic volumes for the proposed project (Figure 8-7). Existing Plus Project AM and PM peak hours intersection traffic operations have been quantified by utilizing the existing lane configurations and controls (Figure 8-2) to the Existing Plus Project peak hour intersection traffic volumes (Figure 8-8). Daily traffic operations for the Existing Plus Project roadway segments were quantified by utilizing the Existing Plus Project ADT volumes and short-term lane geometrics and control.

Existing Plus Project and Bayside Church Expansion/Grove at Granite Bay Project Conditions

The Existing Plus Project and Bayside Church Expansion/Grove at Granite Bay Project Conditions traffic operations were quantified utilizing the existing lane geometrics and control shown in Figure 8-2 for the study area. The resulting study intersection LOS conditions were analyzed for potential impacts.

Figure 8-5
Inbound Project Trip Distribution

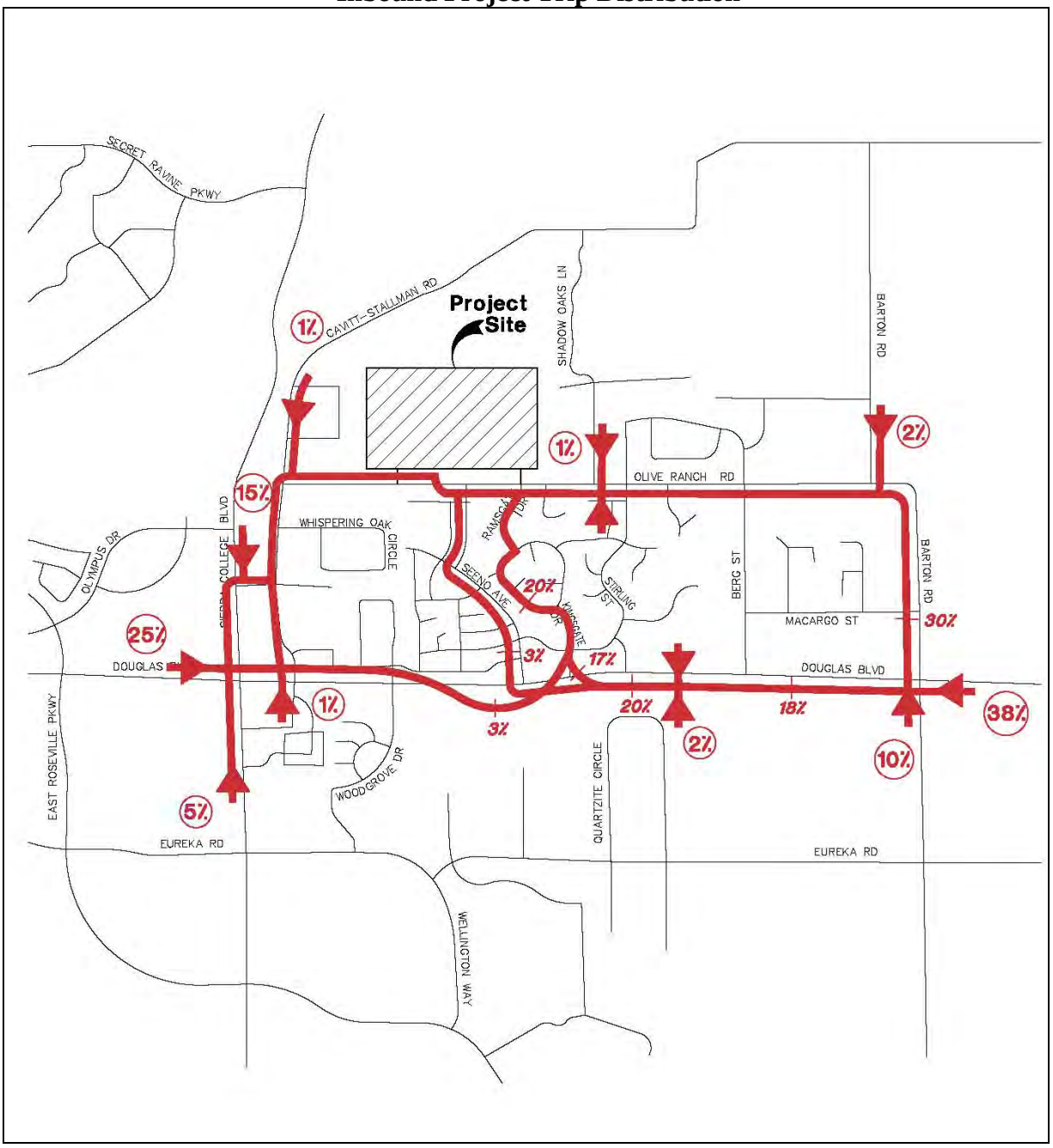


Figure 8-6
Outbound Project Trip Distribution

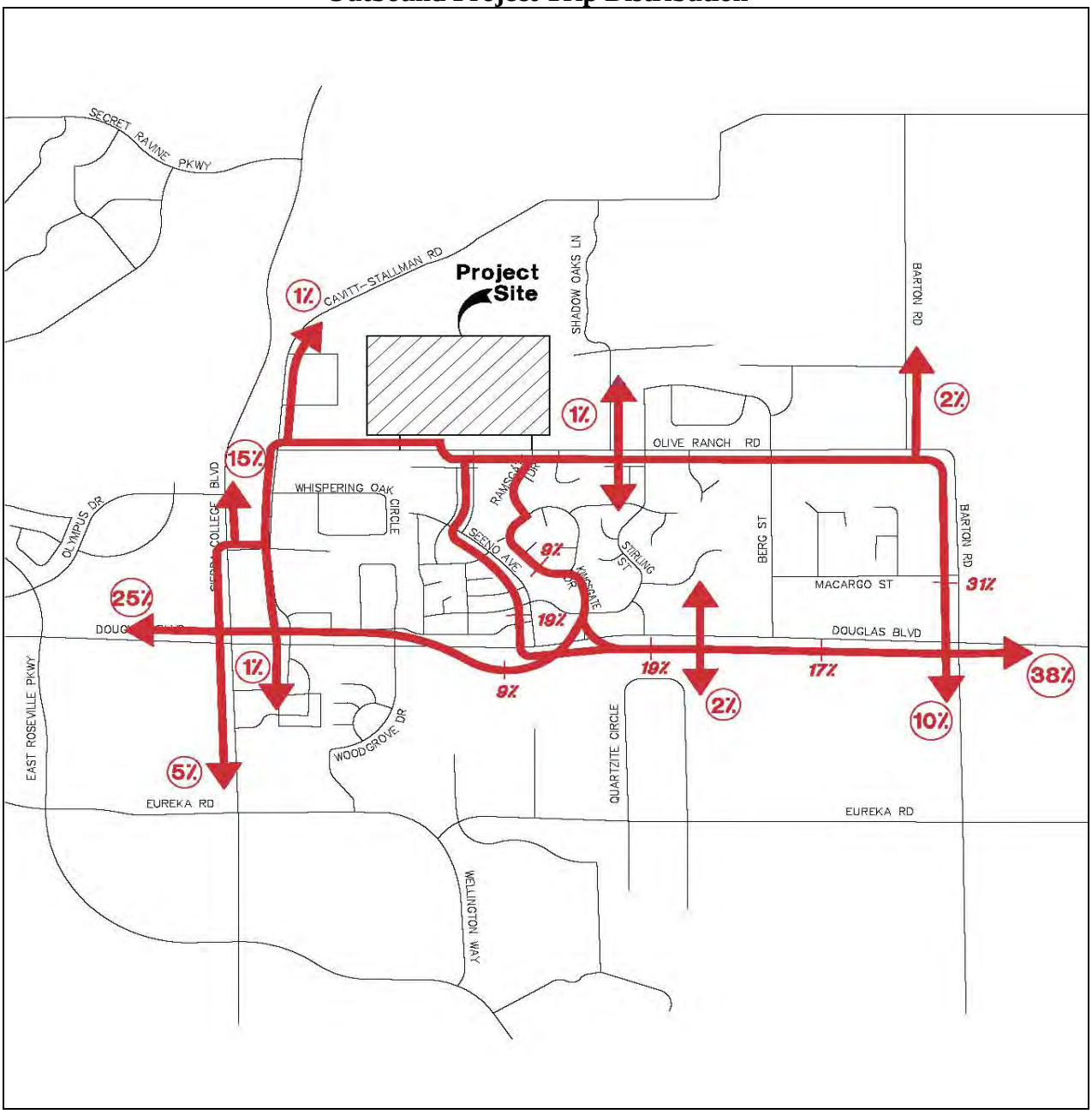


Figure 8-7
Project Only Traffic Volumes

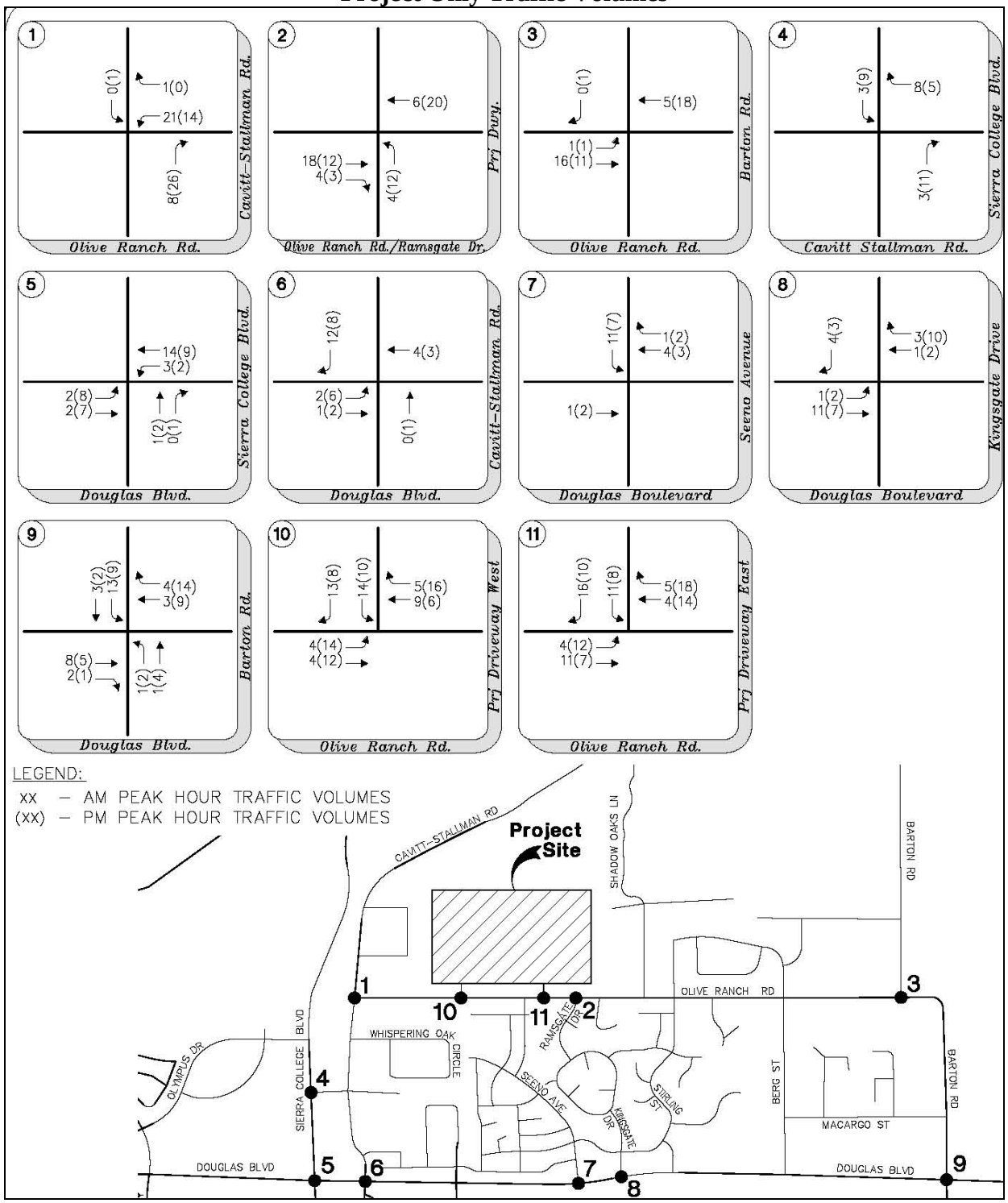
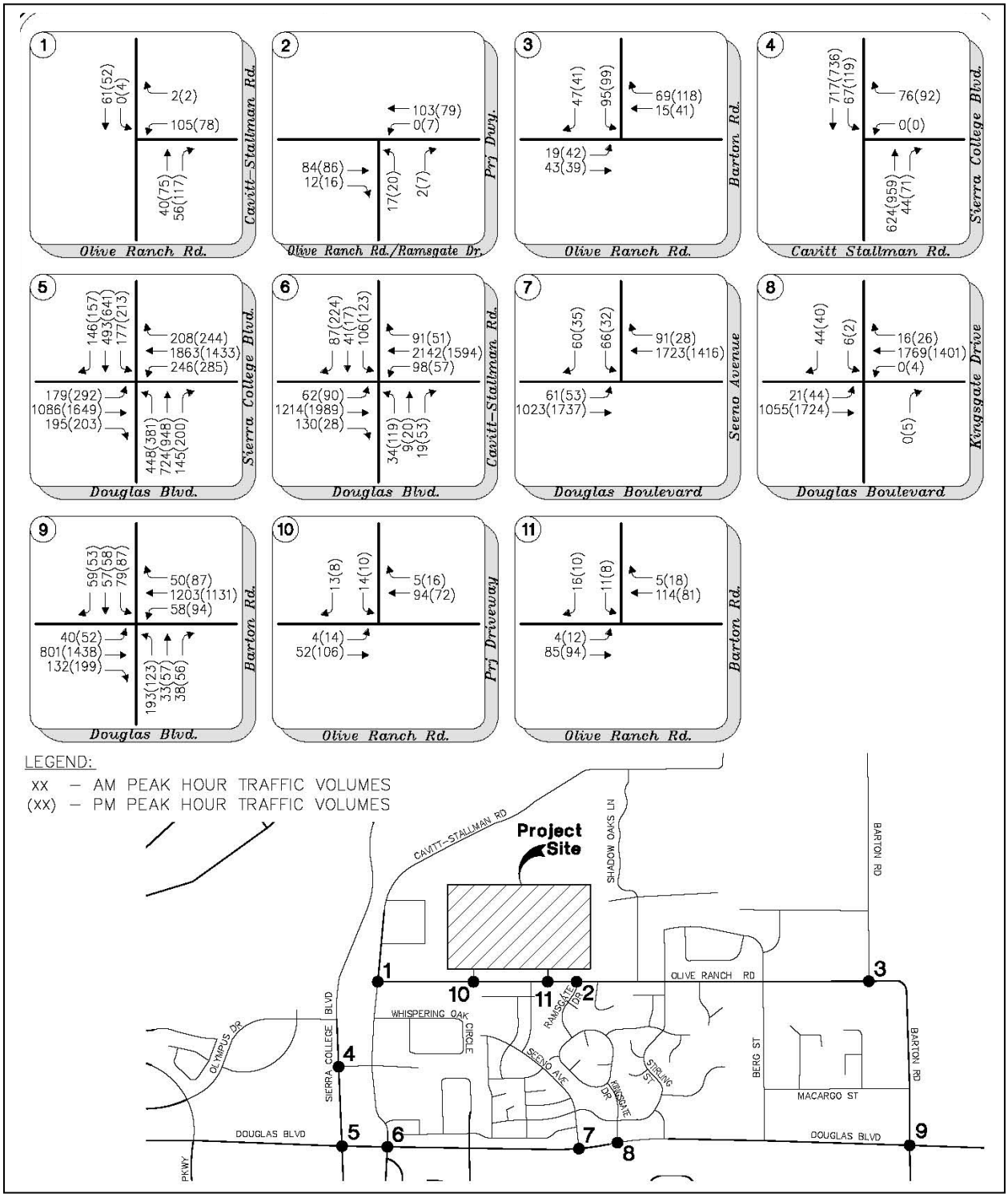


Figure 8-8
Existing Plus Project Traffic Volumes



Potential Cut-Through Traffic Issues

Travel time runs were obtained to study the worst-case cut through traffic scenario from the proposed project to Ramsgate Drive and Seeno Avenue. Travel times were obtained on the following routes:

- Route 1: Douglas/Sierra College – Cavitt-Stallman Road - Olive Ranch Road/Briar Way
- Route 2: Olive Ranch Road/Briar Way - Briar Way - Seeno Avenue - Douglas/Sierra College
- Route 3: Douglas/Sierra College - Seeno Avenue - Briar Way - Olive Ranch Road/Briar Way
- Route 4: Olive Ranch Road/Briar Way – Cavitt-Stallman Road - Douglas/Sierra College
- Route 5: Olive Ranch Road/Ramsgate Drive - Kingsgate Drive - Douglas Sierra College
- Route 6: Douglas Sierra College - Kingsgate Drive - Olive Ranch Road/Ramsgate Drive
- Route 7: Olive Ranch Road/Briar Way - Olive Ranch Road/Ramsgate Drive
- Route 8: Douglas/Barton Road - Kingsgate Drive - Olive Ranch Road/Ramsgate Drive
- Route 9: Olive Ranch Road/Ramsgate Drive - Kingsgate Drive - Douglas/Barton Road
- Route 10: Douglas/Barton Road - Barton Road - Olive Ranch Road - Olive Ranch Road/Ramsgate Drive
- Route 11: Olive Ranch Road/Ramsgate Drive - Olive Ranch Road - Barton Road - Douglas/Barton Road
- Route 12: Douglas/Barton Road - Douglas Blvd - Seeno Avenue - Briar Way - Olive Ranch Road/Briar Way
- Route 13: Olive Ranch Road/Briar Way - Briar Way - Seeno Avenue - Briar Way Douglas Blvd- Douglas/Barton Road

Omni-Means, Ltd. drove on each of the above routes in a car and obtained travel times for each of the above routes. This information was used to determine the travel time between alternative routes for the same origin and destination.

A comparison of travel times between the alternative routes has been included as an appendix within the Traffic Impact Analysis Report (Appendix J). The traffic analysis was completed by assuming approximately 11 and 14 percent of the project daily traffic on Seeno Avenue and Kingsgate Drive respectively.

Modified Site Access Analysis

The *Existing Plus Project with Modified Site Access* conditions and *Year 2025 Plus Project with Modified Site Access* conditions have been simulated by adding traffic generated by the proposed project onto *Existing* intersection peak hour traffic volumes (Figure 8-3). Under the Modified Site Access scenario, the easternmost access along Olive Ranch Road would be aligned directly across from Ramsgate Drive. Trip distribution and assignments of the new alignment are similar to those for the offset alignment included for the proposed project.

Project-Specific Impacts and Mitigation Measures

As stated earlier in this chapter, the two Cumulative project scenarios (Cumulative Year 2025 Without Project Conditions and the Cumulative Year 2025 With Project Conditions) have been incorporated into the Cumulative Impacts and Other CEQA Sections chapter (Chapter 16 of this EIR) and are not included in the analysis below.

8-1 Impacts to traffic flow from construction traffic associated with development of the project site.

Trips to the site during construction would be necessary for delivery of materials and hauling of import fill materials. As identified in Impact Statements 8-2 and 8-3, all study intersections would operate at an acceptable LOS with or without the project-related traffic increases. Fewer trips would be generated by construction than those proposed from future occupied residents; however, vehicles would be dominated by trucks and heavy equipment. On-site staging areas would be established to minimize heavy equipment trips on the surrounding roadways. However, the project sponsor has not provided information detailing the amount of construction traffic that would access the site during construction and excess construction traffic could create traffic impacts on the surrounding roadway network. Therefore, a ***potentially significant*** impact would result.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

8-1 *In conjunction with submittal of Improvement Plans, a striping and signing plan shall be submitted. The striping and signing plan shall include all on- and off-site traffic control devices and shall be reviewed by the County Traffic Engineer. A construction signing plan shall also be provided with the Improvement Plans for review and approval by the County Traffic Engineer.*

8-2 Impacts to study intersections and roadways from the Existing Plus Project scenario.

The Existing Plus Project traffic volumes are presented in Figure 8-8. All study area intersections have a LOS threshold of C or better except those intersections located along Douglas Boulevard, west of Auburn-Folsom Boulevard, which are permitted to operate at a LOS E. All roadway sections have a target operating LOS of C or better. Table 8-8 presents a summary of the predicted Existing Plus Project AM and PM peak hour intersection traffic operations. A comparison between the existing LOS of the study intersections (Table 8-3) to the projected LOS of the study intersections under the Existing Plus Project scenario (Table 8-8) reveal that all study intersections found to operate at acceptable LOS without the proposed project would continue to operate at acceptable LOS with the addition of the proposed project.

Table 8-8
Existing Plus Project Conditions: Intersection LOS

Intersection		Control Type	Delay Methodology	Target LOS	AM Peak Hour			PM Peak Hour		
					Delay	LOS	Warrant Met	Delay	LOS	Warrant Met
1	Olive Ranch Road / Cavitt-Stallman Road	TWSC (2000 HCM) *	Stop Control	C	9.9	A	No	10.3	B	No
			Average		4.0	A	No	2.6	A	No
2	Olive Ranch Road / Ramsgate Drive	TWSC (2000 HCM) *	Stop Control	C	9.7	A	No	9.6	A	No
			Average		0.8	A	No	1.4	A	No
3	Olive Ranch Road / Barton Road	AWSC (2000 HCM)	Average	C	7.9	A	No	8.2	A	No
4	Cavitt-Stallman Road / Sierra College Boulevard	TWSC (2000 HCM) *	Stop Control	C	10.5	B	No	12.6	B	Yes
			Average		0.9	A	No	1.3	A	No
5	Douglas Boulevard / Sierra College Boulevard	Signal (Circular 21)	Average	E	0.830	D	--	0.863	D	--
6	Douglas Boulevard / Cavitt-Stallman Road	Signal (Circular 21)	Average	E	0.872	D	--	0.823	D	--
7	Douglas Boulevard / Seeno Avenue	Signal (Circular 21)	Average	E	0.689	B	--	0.592	A	--
8	Douglas Boulevard / Kingsgate Drive	TWSC (2000 HCM) *	Stop Control	E	73.2	F	No	44.0	E	No
			Average		1.4	A	No	0.8	A	No
9	Douglas Boulevard / Barton Road	Signal (Circular 21)	Average	E	0.593	A	--	0.760	C	--
10	Project Driveway / Olive Ranch Road	TWSC (2000 HCM) *	Stop Control	C	9.2	A	--	9.4	A	--
			Average		1.5	A	No	1.2	A	No
11	Project Driveway West	TWSC (2000 HCM) *	Stop Control	C	9.4	A	No	9.3	A	No
			Average		1.2	A	No	1.2	A	No

Note:
1. TWSC = Two-Way Stop Control (LOS and delay are based on LOS and delay for worst approach).
2. AWSC = All-Way Stop Control (LOS and delay are based on average intersection delay).
3. Warrant = Based on California MUTCD Warrant 3.
4. * = TWSC intersections are measured by "average" delay LOS.

Source: Omni-Means, Ltd., Rancho Del Oro Estates Project TIAR, 2009.

As identified in Table 8-8, the only intersection to have met the Warrant 3 requirement for PM peak hour is Intersection #4, Cavitt-Stallman Road / Sierra College Boulevard. However, a traffic signal is not warranted as the PM Peak Hour LOS would still operate at an acceptable LOS.

Once constructed, the proposed project would generate approximately 934 new weekday trips. A summary of the Existing Roadway LOS conditions is presented in Table 8-9. A comparison of the LOS presented in Table 8-4 (No Project) and Table 8-9 (Existing Plus Project) illustrates that all of the roadway segments found to operate at an acceptable LOS under the No Project scenario would continue to operate at an acceptable LOS under the Existing Plus Project scenario.

Table 8-9
Roadway Segments LOS for Existing Plus Project Scenario

Roadway Segment	Capacity Configuration	Target LOS	ADT	LOS
Olive Ranch Road – between Cavitt-Stallman Road and Barton Road	Two-Lane Residential Collector with Frontages	C	2,450	B
Seeno Avenue – north of Douglas Boulevard	Two-Lane Residential Collector with Frontages	C	2,090	B
Kingsgate Drive – north of Douglas Boulevard	Two-Lane Residential Collector with Frontages	C	1,240	A
Ramsgate Drive – south of Olive Ranch Road	Two-Lane Residential/Local	C	420	A
Briar Way – south of Olive Ranch Road	Two-Lane Residential/Local	C	710	B

Source: Omni-Means, Ltd., Rancho Del Oro Estates Project TIAR, 2009.

The addition of the proposed project traffic to the surrounding existing roadway traffic volumes would not exceed the capacity of the roadway network under the Existing Plus Project scenario; therefore, the proposed project would result in ***less-than-significant*** impacts to the intersections and roadway segments included within the study area.

Mitigation Measure(s)
None required.

8-3 Impacts related to Existing Plus Project Plus Bayside Church Expansion Plus the Grove at Granite Bay Project Conditions.

Potential transportation impacts related to the proposed project, in combination with two other nearby projects (the Bayside Church Expansion project and the Grove at Granite Bay project) have the potential to impact the local intersection and roadway segments of the proposed project site. The two nearby projects are both assumed to be developed before the proposed project.

Peak hour traffic associated with the Bayside Church Expansion and the Grove at Granite Bay projects were added to the existing traffic volumes of the study area. The two additional projects, which are in various stages of planning or development are assumed to be

developed and in operation prior to the implementation of the proposed project. The trip generation of the above two projects is displayed in Table 8-10.

Table 8-10
Project Trip Generation for the Bayside Church Expansion Plus the Grove at Granite Bay Projects

ITE Land Use Category	Unit	Weekday Daily Trip	Weekday AM Peak Rate/Unit			Weekday PM Peak Rate/Unit		
		Rate/Unit	Total	In	Out	Total	In	Out
Church (560)	Per KSF	9.11	0.56	62%	38%	0.55	48%	52%
Single-Family Detached Housing (210)	Per d.u.	11.38	1.00	25%	75%	1.19	63%	37%
Land Use Description	**Quantity**	**Weekday Daily Trip**	**Weekday AM Peak**			**Weekday PM Peak**		
			Total	**In**	**Out**	**Total**	**In**	**Out**
Bayside Church Expansion	108,700	1,236	61	38	23	60	39	31
The Grove – Single-Family Homes	32	364	32	8	24	38	24	14
Net New Project Trips		**1,600**	**93**	**46**	**47**	**98**	**53**	**45**

Note: Trip Generation Rates based on equations as outlined in the ITE Trip Generation Manual, 7th edition.

Source: Omni-Means, Ltd., Rancho Del Oro Estates Project TIAR, 2009.

The projected trip generation from the Bayside Church Expansion and the Grove at Granite Bay Expansion projects is anticipated to be an additional 1,600 daily trips, of which 93 trips are projected to occur during the AM peak hour period, while another 98 trips would occur during the PM peak hour period. The addition of the trip generation illustrated in Table 8-10 to the projected trip generation for the Existing Plus Project equates to the Existing Plus Project and Bayside Church Expansion/Grove at Granite Bay Project Conditions. As illustrated in Table 8-11, all of the intersections are projected to operate at acceptable LOS under this project scenario.

The addition of the new traffic trips of the proposed project, plus those trips generated from the Bayside Church Expansion and the Grove at Granite Bay, would not exceed the capacity of the existing study area roadway network; therefore, ***less-than-significant*** impacts to the intersections and roadway segments would result.

Mitigation Measure(s)
None required.

Table 8-11
Existing Plus Project Plus Bayside Church Expansion Plus the Grove at Granite Bay Project Conditions: Intersection LOS

Intersection		Control Type	Delay Methodology	Target LOS	AM Peak Hour			PM Peak Hour		
					Delay	LOS	Warrant Met	Delay	LOS	Warrant Met
1	Olive Ranch Road/Cavitt-Stallman Road	TWSC (2000 HCM)*	Stop Control	C	9.9	A	--	10.3	B	--
			Average		4.0	A	--	2.6	A	--
2	Olive Ranch Road/Ramsgate Drive	TWSC (2000 HCM) *	Stop Control	C	9.7	A	--	9.6	A	--
			Average		0.9	A	--	1.5	A	--
3	Olive Ranch Road/Barton Road	AWSC (2000 HCM)	Average	C	7.9	A	--	8.2	A	--
4	Cavitt-Stallman Road/Sierra College Boulevard	TWSC (2000 HCM) *	Stop Control	C	10.6	B	--	12.8	B	--
			Average		0.9	A	--	1.3	A	--
5	Douglas Boulevard/Sierra College Boulevard	Signal (Circular 21)	Average	E	0.839	D	--	0.867	D	--
6	Douglas Boulevard / Cavitt-Stallman Road	Signal (Circular 21)	Average	E	0.882	D	--	0.829	D	--
7	Douglas Boulevard/Seeno Avenue	Signal (Circular 21)	Average	E	0.697	B	--	0.599	A	--
8	Douglas Boulevard / Kingsgate Drive	TWSC (2000 HCM) *	Stop Control	E	79.1	F	--	46.9	E	--
			Average		1.5	A	--	0.9	A	--
9	Douglas Boulevard/Barton Road	Signal (Circular 21)	Average	E	0.6	B	--	0.769	C	--
10	Project Driveway/Olive Ranch Road	TWSC (2000 HCM) *	Stop Control	C	9.2	A	--	9.4	A	--
			Average		1.5	A	--	1.2	A	--
11	Project Driveway West	TWSC (2000 HCM) *	Stop Control	C	9.4	A	--	9.3	A	--
			Average		1.2	A	--	1.2	A	--
12	Cavitt-Stallman Road/Bowman Place	AWSC (2000 HCM)	Average	C	8.3	A	--	9.0	A	--

Note: 1. TWSC = Two-Way Stop Control (LOS and delay are based on LOS and delay for worst approach).
2. AWSC = All-Way Stop Control (LOS and delay are based on average intersection delay).
3. Warrant = Based on California MUTCD Warrant 3.
4. * = TWSC intersections are measured by "average" delay LOS.

Source: Omni-Means, Ltd., Rancho Del Oro Estates Project TIAR, 2009.

8-4 Impacts resulting from project-related cut-through traffic.

Included as part of the Transportation Impact Analysis Report (Appendix J) was a comparison of travel run times between alternative routes within the study area. The travel time runs indicated that less time would be required to travel to/from Sierra College Boulevard/Douglas Boulevard intersection to/from the project site on Cavitt-Stallman Road as compared to on Seeno Avenue or Kingsgate Drive. Similarly the travel time runs indicated that less time would be required to travel on Barton Road as compared to Seeno Avenue or Kingsgate Drive to/from the Barton Road/Douglas Boulevard intersection to/from the project site.

The cut-through traffic analysis was completed by assuming that approximately 11- and 14-percent of the project-related daily traffic, along Seeno Avenue and Kingsgate Drive (respectively). Therefore, the analysis conducted in the previous sections presents a worst-case cut-through scenario. The results of the cut-through analysis estimated that the project would contribute approximately 12 trips during the AM peak hour and nine trips during the PM peak hour on Seeno Avenue. On Kingsgate Drive, the project would contribute eight trips during the AM peak hour and 15 trips during the PM peak hour. In addition, approximately 33 percent of project daily trips are estimated along Olive Ranch Road in the easterly direction.

As presented under the worst-case scenario above, the proposed project would not contribute a significant number of new cut-through trips along Seeno Avenue or Kingsgate Drive. The additional cut-through trips would not exceed the existing and future traffic volumes along study area roadways. Therefore, potential impacts related to cut-through traffic are considered ***less-than-significant***.

Mitigation Measure(s)
None required.

8-5 Impacts related to Modified Site Access.

An analysis of a Modified Access Scenario was included in the Transportation Impact Analysis Report (See Appendix J), which would include the easternmost access to the project site aligned directly across from Ramsgate Drive. It should be noted that this Modified Access Scenario is not included as part of the proposed project, which moved its eastern access westward from what is set forth in the Modified Access Scenario at the request of the homeowners in the Grosvenor Downs subdivision. The overall trip distribution and trip assignments under the Modified Site Access scenario would be similar to the proposed site access presented under the proposed project. Therefore, the proposed project impacts at all the study intersections would be similar to those presented in the previous scenarios except at the intersection of Olive Ranch Road and Ramsgate Drive.

Table 8-12 contains a summary of the AM and PM peak hour intersection operations under the *Existing Plus Project with Modified Site Access* conditions. As shown below in Table 8-12, the Olive Ranch Road/Ramsgate Drive intersection would be forecasted to operate with acceptable LOS under the Existing Plus Project conditions. Under the Modified Site Access scenario, the cut-through traffic would be similar to the predicted traffic for the access proposed in the site plan. Therefore, the development of the Modified Site Access scenario would result in ***less-than-significant*** impacts.

Mitigation Measure(s)
None required.

Table 8-12
Modified Site Access Intersection Operations for Existing Plus Project with Modified Site Access

#	Intersection	Control Type	Delay Meth.	Target LOS	AM Peak Hour			PM Peak Hour		
					Delay	LOS	Warrant Met?	Delay	LOS	Warrant Met?
2	Olive Ranch Road / Ramsgate Drive	TWSC (2000 HCM)	Stop-Controlled	C	10.1	B	--	10.2	B	--
			Average	C	1.7	A	--	2.0	A	--

Source: Omni-Means, Ltd., Rancho Del Oro Estates Project TIAR, 2009.

8-6 Impacts to bicycle and pedestrian facilities.

Per requirements of the PCGP and the GBCP, the proposed project would include the construction of a new pathway along the north side of Olive Ranch Road for pedestrian access. Currently, portions of Cavitt-Stallman Road include limited sidewalks that connect to Douglas Boulevard. Neighborhoods to the southeast of the site also have limited sidewalk infrastructure. The section of Olive Ranch Road where the project site would be located does not contain any existing pathways or sidewalks, although there are no barriers preventing future development of pathways. The proposed pathway would be used for pedestrian traffic throughout the immediate vicinity of the project site.

Existing bicycle pathways are not located along Olive Ranch Road or in the immediate neighborhoods surrounding the project site. However, existing Class II and Class III bicycle pathways are along Douglas Boulevard, Sierra College Boulevard, and Barton Road. The project would include the construction of improvements to widen Olive Ranch Road to its ultimate County-required width of 40 feet of pavement. This road section, as shown on the Tentative Map for the project, includes a 4-foot Class II bike lane. Existing and future bicycle traffic in the vicinity of the project site would continue to utilize neighborhood roadways and sidewalks until reaching connection points to the existing bikeways. The proposed project would not create barriers or hazards to bicyclists or pedestrians, nor would the project result in conflicts with the adopted circulation policies pertaining to bicycle and pedestrian access.

The introduction of a new pathway along Olive Ranch Road is considered to be a beneficial impact to the project vicinity. However, the pathway design would need to meet the standards of the Americans with Disabilities Association (ADA) and any applicable GBCP standards. Therefore, the potential impacts related to on-site and off-site bicycle and pedestrian facilities are considered ***potentially significant***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

8-6 *Prior to approval of Improvement Plans, the project applicant shall ensure that the pathway and sidewalk network meets ADA accessibility requirements, subject to review and approval of the Improvement Plans by the Engineering and Surveying Department.*

8-7 Impacts to transit facilities.

As discussed under Section 8.1, several transit routes operated by the PCT operate near the project site. The closest transit bus route to the project site is operated by Roseville Transit, with routes E and G including stops at the intersection of Sierra College Boulevard and Douglas Boulevard (approximately three quarters of a mile away). Other local/regional County transit services in the general vicinity include the Placer Commuter Express and the Dial-a-Ride transportation system. The proposed project is not expected to alter any existing transit route nor create any hazards or barriers to the existing transit system. Due to the limited size and scope of the proposed project, new transit services would not be required for future residents of the proposed project. The proposed pathway to be constructed along the southern boundary of the project site would improve accessibility to the existing pathway infrastructure that leads to and from the local transit services. As the proposed project would not create any hazards or barriers to the existing transit system, nor conflict with the adopted policies for alternative transportation, potential impacts related to transit facilities are considered ***less-than-significant***.

Mitigation Measure(s)
None required.

8-8 Impacts related to emergency vehicle access.

The project developer has obtained permission from private property owners to establish an off-site emergency vehicle access (EVA) route that would provide a north-south connection between Olive Ranch Road and Cavitt-Stallman Road. The South Placer Fire District has indicated that such an off-site EVA would provide adequate access to the project site, as well as improve the response times for existing and future developments in the project vicinity. As discussed in Chapter 13 of the DEIR (Public Services), the closest fire station is located at 5300 Olive Ranch Road, approximately one quarter of a mile east of the project site. In the event of an emergency response call, the first engine to respond to the project site would likely come from the Olive Ranch Road fire station and secondary responders would

come from the fire station located to the northeast, via the new EVA. The new EVA route would eliminate the need for the second responders to travel the circuitous route along Sierra College Drive to access the project site and vicinity.

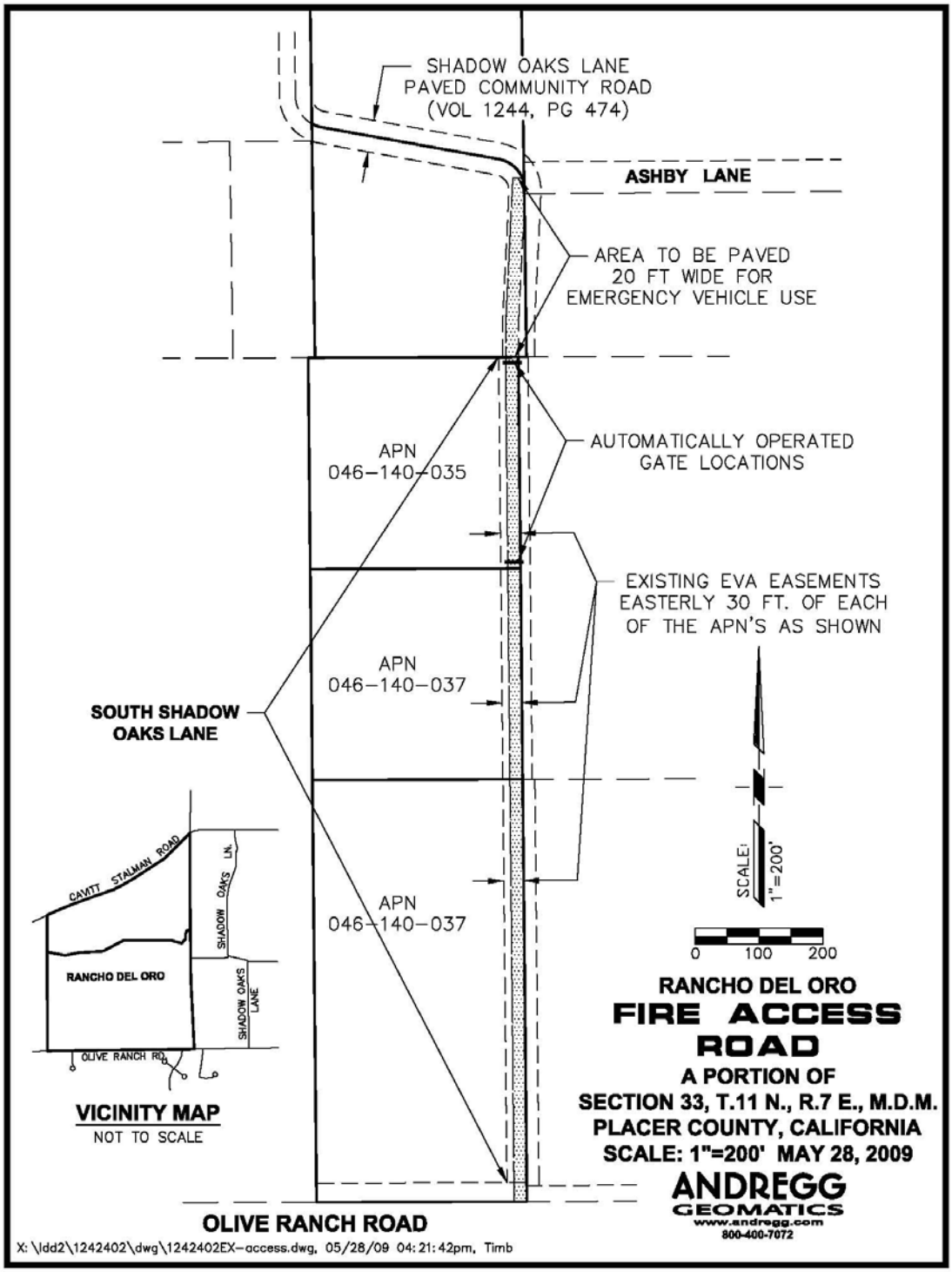
The improved emergency access route would traverse South Shadow Oaks Lane located approximately 1,000 feet east of the project site. The project developer has obtained easements from property owners and the EVA easements would extend over three consecutive parcels (046-140-035, 046-140-037, and 046-140-038), from Olive Ranch Road northerly along the west side of South Shadow Oaks Lane (See Figure 8-9). The easement agreement includes plans for the construction and operation of two emergency access gates along South Shadow Oaks Lane, which would be activated by the strobe lights of emergency vehicles and equipment, but not be accessible for day-to-day traffic. However, the emergency access gates would permit pedestrian access along this route.

Concurrent with emergency gate installations, the developer would pave the existing dirt portion of the Shadow Oaks community roadway for a total paved width of 20 feet (as specified by South Placer Fire District). The pavement would extend from the northernmost emergency access gate northward to the existing paved community road north of Shadow Oaks Lane for a total approximate distance of 250 feet (See Figure 8-9). As the area between the two emergency access gates will be paved by the property owner, subsequent pavement activities are not required for any roadway sections.

With the incorporation of the EVA, emergency responders would be able to drive along the private South Shadow Oaks Lane in shorter time frames and be able to serve the project site and vicinity. Through-traffic by non-emergency vehicles would be prohibited by the emergency access gates. Improvements to South Shadow Oaks Lane would assist in emergency response times to the project site and project vicinity. With the incorporation of emergency access gates and EVA easements, impacts related to emergency vehicle access to the site would be ***less-than-significant***. It should be noted that, as a project Condition of Approval, a letter from the South Placer Fire District will be required to be obtained by the applicant stating that the District does not have any concerns with the width of roadways, number of access points, grades, parking restrictions, location of hydrants, emergency access ingress and egress, or private gates.

Mitigation Measure(s)
None required.

Figure 8-9
Off-Site Emergency Vehicle Access Route for the Proposed Project



8-9 Impacts to vehicular safety from design features or incompatible uses.

The proposed project would result in approximately 934 new weekday vehicle trips. Impact Statements 8-2 and 8-3 analyze potential impacts to the traffic study area, including changes to the LOS for intersections and roadway segments. All intersections and roadways identified to operate at an acceptable LOS would continue to do so under Existing Plus Project scenario as well as the Existing Plus Project Plus Bayside Church Expansion Plus the Grove at Granite Bay Project scenario. The proposed project would not result in alterations to the existing transportation infrastructure including dangerous intersections and curved roadways. All on-site roadways would be reviewed by the Engineering and Surveying Department prior to the approval of a finalized Improvement Plan. Therefore, impacts related to vehicular safety resulting from project implementation are considered to be ***less-than-significant***.

Mitigation Measure(s)
None required.

8-10 Impacts resulting from inadequate parking capacity.

The proposed project is expected to provide a minimum of two off-street parking spaces for each residential unit to ensure consistency with the County requirements. New on-street parking spaces would be created along the new internal project roadways and would not infringe upon other streets and roadways in the vicinity of the project site. Therefore, the proposed project is not expected to create parking impacts on the surrounding areas and impacts related to adequate parking would be ***less-than-significant***.

Mitigation Measure(s)
None required.

8-11 Impacts to air traffic patterns.

The proposed project is not located in the immediate vicinity of an airport or private airstrip. The closest municipal airport is approximately 15 miles away by the City of Auburn, California. Several private airstrips are located approximately seven or more miles to the west of the project site. The size and scope of the residential development would not result in any impacts to air traffic patterns or potential increases to air/flight safety risks. Therefore, the proposed project would result in ***no impact*** to air traffic patterns.

Mitigation Measure(s)
None required.

Endnotes

[1] Omni-Means, Ltd., *Rancho Del Oro Transportation Impact Analysis Report*, May 2009.
[2] Placer County, *Placer County General Plan*, August 1994.
[3] Placer County, *Granite Bay Community Plan*, May 1989, amended through March 2008.