

6 CUMULATIVE, GROWTH INDUCING, AND IRREVERSIBLE IMPACTS

This section includes a detailed analysis of the cumulative impacts that would be anticipated with the proposed project with a specific focus on the project's cumulative traffic impacts. In addition, this section includes a detailed discussion of the proposed project's growth-inducing impacts and the project's significant and irreversible commitment of resources.

6.1 CUMULATIVE IMPACTS OF THE PROPOSED PROJECT

This draft environmental impact report (DEIR) provides an analysis of overall cumulative impacts of the project taken together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the California Environmental Quality Act Guidelines (State CEQA Guidelines). The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the Rocklin 60 project itself would cause a "cumulatively considerable" (and thus significant) incremental contribution to any such cumulatively significant impacts. (See State CEQA Guidelines Sections 15130[a]-[b], Section 15355[b], Section 15064[h], Section 15065[c]; *Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal.App.4th 98, 120.) In other words, the required analysis intends to first create a broad context in which to assess the project's incremental contribution to anticipated cumulative impacts, viewed on a geographic scale well beyond the project site itself, and then to determine whether the project's incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., "cumulatively considerable" in CEQA parlance).

Pursuant to Section 15130 of the State CEQA Guidelines, "(t)he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impacts to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact." The proposed project is considered to have a significant cumulative effect if:

1. The cumulative effects of development without the project are not significant and the project's additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
2. The cumulative effects of development without the project are already significant and the project contributes measurably to the effect. The term "measurably" is subject to interpretation. The standards used herein to determine measurability are that either the impact must be noticeable to a reasonable person, or must exceed an established threshold of significance.

Mitigation measures are to be developed to reduce the project's contribution to cumulative effects to a less-than-significant level or otherwise to the degree it is feasible to do so. The State CEQA Guidelines acknowledge that sometimes the only feasible method for mitigating or avoiding significant cumulative effects is to adopt ordinances or regulations that apply to all projects that contribute to the cumulative effect.

The State CEQA Guidelines Section 15130(b)(1) provide two approaches to analyzing cumulative impacts. The first is the list approach, which requires a listing of past, present, and reasonably anticipated future projects producing related or cumulative impacts. The second is the summary approach wherein the relevant projections contained in an adopted general plan or related planning document that is designed to evaluate regional or areawide conditions are summarized. For this DEIR, both the list and the plan approach have been combined to generate the most reliable future projections possible. A list approach is used to define specific projects that are currently proposed, but are not necessarily considered within an approved planning document. The plan approach is used to consider development consistent with an adopted plan.

6.1.1 CUMULATIVE DEVELOPMENT ASSUMPTIONS

The Rocklin General Plan is intended to provide a long-term guide for the land use change in the City. In describing the potential effects of this long-term growth, the general plan identifies two population growth trajectories. These included a moderate growth scenario and a high growth scenario. Both of these scenarios projected population growth out to 2010. For the moderate growth scenario, the 2010 population was estimate to be 36,200 people. For the high growth scenario, the 2010 population was estimate to be 48,600 people. The City's existing population exceeded the high growth scenario projection by 2,310 people in 2006. Current population in the City is estimated to be 51,080 (Department of Finance 2007).

In order to identify the long-term cumulative growth anticipated in the region, the population projections identified in the general plan were supplemented with projections developed by the California Department of Finance for the County. Based on these projections, the County's estimated 2006 population of 322,428 is estimated to increase by 8% to 349,113 by 2010 and by approximately 41% to 456,040 by 2020.¹ For all resource issues with the exception of traffic, the cumulative growth baseline was based on these countywide population growth estimates for the year 2020, which include City growth. The cumulative growth assumptions used in the traffic analysis are described in the traffic section later in this section.

The area cumulatively affected by the individual project impacts varies depending upon the resource issue being evaluated. For example, nuisance impacts associated with dust generation during construction would be limited to areas directly surrounding the project site while the project's generation of regional emissions would contribute cumulatively to the entire air basin. To ensure that the potential localized cumulative impacts are adequately evaluated, an analysis of the cumulative effects of the adjacent Rocklin Crossings development is discussed, when appropriate. As described in Chapter 3, Project Description, the Rocklin Crossings project includes construction of a regional shopping center on 50 acres of land, anticipated to include a Wal-Mart Supercenter and a Home Depot, as well as other commercial uses.

The Croftwood Estates project is located southeast of the proposed project site across Secret Ravine. The Croftwood Estates project was approved by the City of Rocklin and is planned to develop 106 single family homes and 50 custom lots.

The Sierra College Boulevard / Interstates 80 interchange project is designed to improve vehicle movement and circulation at this intersection in anticipation of future urban development in the immediate area. The California Department of Transportation (Caltrans) is the lead agency for implementation of improvements to this interchange and construction is currently occurring.

The Sierra College Center, located on approximately 9.83 acres at the southeastern corner of Sierra College Boulevard and Rocklin Road, proposes construction of thirteen single story office and retail buildings. The office buildings would total approximately 59,218 square feet of floor space and the retail buildings would total approximately 18,370 square feet of floor space for an overall total of 77,588 square feet of floor space. The main use of the office space is projected to be dental/medical with a mix of other small businesses.

Placer Vineyards Specific Plan area encompasses approximately 5,230 acres located in the southwest corner of Placer County, bounded on the north by Baseline Road, on the south by the Sacramento-Placer County line, on the west by the Sutter-Placer County line, and on the east by Dry Creek and Walerga Road. As approved by the Placer County Board of Supervisors in July 2007, the Placer Vineyards Specific Plan is a mixed-use master planned community that includes residential, employment, commercial, open space, recreational, and public/quasi-public land uses. Placer Vineyards Specific Plan envisions construction of 14,132 homes in a range of housing types, styles, and densities. At build out, projected to occur over a twenty year time frame, Placer Vineyards would have a population of approximately 33,000 people, 434 acres of employment centers, 166 acres of retail commercial centers, and 920 acres of new parks and open space.

¹ The population for Placer County was recently revised for Placer County to 317,498, a decrease that does not affect the analysis or conclusions presented in this section.

The Placer Ranch Specific Plan area encompasses approximately 2,213 acres located north and adjacent to the City of Roseville and West Roseville Specific Plan area, approximately one mile west of the SR 65/Sunset Boulevard interchange, and bisected by Fiddymont Road. The Placer Ranch Specific Plan includes a mixture of industrial, commercial, office and professional, educational, and residential land uses. The Placer Ranch Specific Plan is envisioned to develop 4,618 residential units and includes land that would be developed with a California State University campus sized to accommodate between 15,000 and 25,000 full time students at build out.

The Regional University and Community Specific Plan area encompasses approximately 1,136 acres located north of Baseline Road, east of Brewer Road, and west of the future extension of Watt Avenue. The proposed Regional University and Community Specific Plan includes two primary components: a University campus (600 acres) and an adjoining community (536 acres). The Regional University is planned to accommodate approximately 6,000 students, along with 800 professors and staff, and to offer both undergraduate and graduate degrees. In addition to the institutional facilities on campus, the campus would include approximately 1,155 residential units for students and faculty, as well as retirement housing. The preliminary University program includes a full range of academic, administrative, athletic, and performing arts facilities; faculty and staff housing; student housing; and a retirement village. In addition, a portion of the campus is planned for a potential private high school that could accommodate 1,200 students and accompanying staff and faculty. The proposed Community would involve mixed-use development with a variety of residential, commercial, employment, open space, parks, and public uses. The Community would include 3,232 residential units of varying densities, commercial, open space, and recreation areas.

The West Roseville Specific Plan area is located in the northwestern-most portion of the City of Roseville and encompasses 3,162 acres is adjacent to and east of the Placer Vineyards Specific Plan located in Placer County. The West Roseville Specific Plan land use plan identifies a blend of residential, service, employment, open space, and public uses and envisions housing approximately 20,810 residents and providing jobs for 3,726 employees.

The Morgan’s Orchard at Secret Ravine project would develop 15.9 acres located at the southwest corner of I-80 and Penryn Parkway east of the Town of Loomis. This project would construct 68 residential lots sized to contain only the building footprint of its respective dwelling unit thereby allowing the remainder of the land to be held as common open space. All residential lots would be developed with detached housing units.

SUMMARY OF CURRENTLY PLANNED AND PROPOSED PROJECTS

Table 6-1 provides a summary of the projects considered in the cumulative analysis. As described above and shown in Table 6-1, substantial development and growth is anticipated to occur throughout the vicinity and region.

Cumulative Project	Total Acres	Residential Land Uses (units)	Commercial/Industrial Land Uses (acres)	Population (persons)
Croftwood Estates Development	83.3	156	0	unknown
Rocklin Crossings Development*	49.03	0	49.03	0
Sierra College Boulevard / I-80 Interchange	N/A	0	0	0
Sierra College Center	9.83	0	9.83	0
Placer Vineyards Specific Plan	5,230	14,132	600	33,000
Placer Ranch Specific Plan	2,213	6,758**	740	18,280
Regional University and Community Specific Plan	1,136	4,387**	45	unknown
West Roseville Specific Plan	3,162	8,390	177.2	20,810
Morgan’s Orchard at Secret Ravine	15.9	68	0	unknown
Total		33,891	1,621.06	72,090
* Rocklin Crossings is an approved but not yet constructed project				
** includes university student housing				

6.1.2 CUMULATIVE IMPACTS

TRAFFIC

The City's traffic model forecasts traffic volume out to the year 2025 based on the land use and circulation system included in the City's General Plan. Therefore, for the cumulative traffic impacts, the cumulative baseline year is 2025. The analysis examines the traffic impacts expected to result from the addition of vehicle traffic generated by the proposed project on the cumulative traffic condition at surrounding intersections and roadway segments.

Development of Future Traffic Volumes

Traffic volume data for 2025 conditions were developed using forecasts from the City of Rocklin traffic model. The traffic model is based on the land use and circulation system shown in the City's General Plan. The 2025 projected volume for this analysis is based on the summary of projections method contained in the adopted General Plan. This method does not assume full buildout of all of the land uses identified in the General Plan's land use map. Instead, base-year and future-year p.m. peak-hour arterial segment volumes were forecast using the City's model, which is considered a more accurate source of information about 2025 conditions, as it reflects demographic and market assumptions superimposed on land use plans. Turn movements for the p.m. peak hour were postprocessed according to the methodology described below.

Intersection Turning Movements

For passenger vehicles, the base-year scenario in the City's traffic model is 2001, and the future-year scenario is 2025. The following describes the methodology used to convert traffic model volumes into a.m. and p.m. peak-hour intersection turn volumes for 2025 conditions:

1. The difference between the modeled 2001 and 2025 peak-hour directional arterial traffic volumes (for each intersection approach and departure) was identified from loaded highway network plots. This difference defines growth in traffic over the 24-year period. The incremental growth in peak-period approach and departure volumes between 2001 and 2025 was factored to develop the incremental change in peak-hour volumes.
2. The forecast growth in approach and departure volumes from 2006 to future-year 2025 was added to the existing approach and departure volumes, resulting in postprocessed forecast-year 2025 approach and departure volumes. Volume development worksheets summarizing the steps are included in Appendix E.
3. Forecast year 2025 turn volumes were developed using existing turn volumes and the future approach and departure volumes, based on the methodologies contained in the National Cooperative Highway Research Program Report (NCHRP) 255: *Highway Traffic Data for Urbanized Area Project Planning and Design* (Transportation Research Board, December 1982).

The City's current traffic model is not validated for the a.m. peak hour and does not have forecasting capability for the Saturday peak hour. To validate the 2025 model a.m. peak-hour traffic volumes, the existing a.m. peak-hour traffic volumes were compared to the existing p.m. peak-hour traffic volumes and ratios between existing a.m. and p.m. peak volume were calculated. These ratios were then applied to the 2025 a.m. peak model numbers. These adjusted 2025 a.m. peak directional arterial traffic volumes were then used in the methodology described above in Step 1 to obtain the growth in traffic during the a.m. peak hour. Similarly, to develop future intersection turn movements for the Saturday peak hours, the ratios of the existing p.m. peak to Saturday peak hours were used. These ratios were applied to the postprocessed year 2025 no project p.m. peak hour traffic volumes to determine the 2025 no project Saturday peak-hour traffic volumes. Project trips were then manually added to the study area intersections to determine the 2025 plus project traffic volumes.

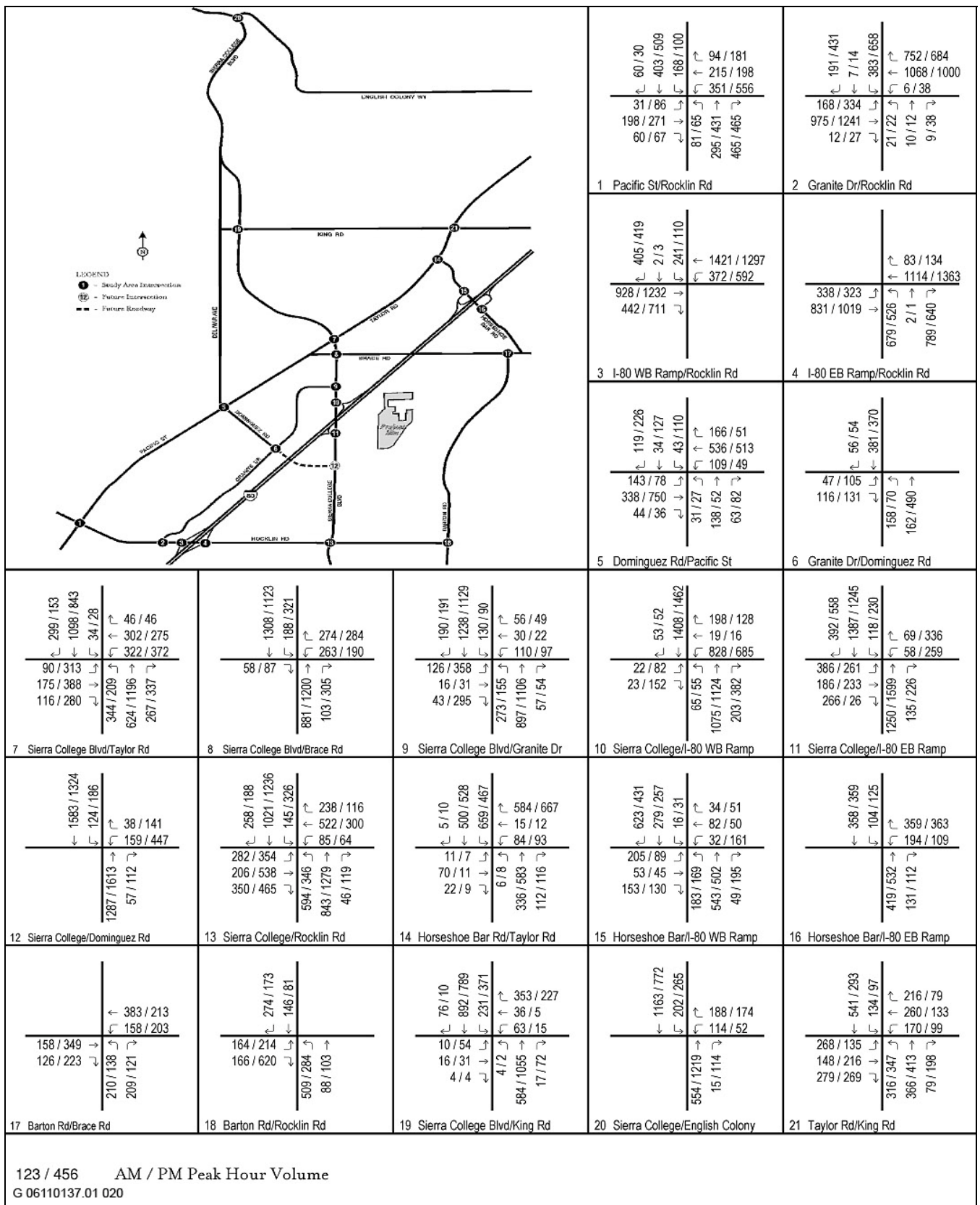
Year 2025 traffic volumes were forecast for two roadway networks. The network used for project impact analysis assumes that Dominguez Road terminates at Granite Drive, as in the existing condition, and is referred to as “without Dominguez Road.” The alternative network assumes that Dominguez Road is extended east to Sierra College Boulevard. This alternative network is referred to as “with Dominguez Road” and is intended to provide an analysis of the effects of extending Dominguez Road. The Dominguez Road extension is in the City’s Traffic Impact Fee and Capital Improvement Program and is included in the City’s current General Plan although no schedule exists for construction of the new segment. The analysis of these two roadway networks is provided below with the identification of separate impacts depending upon which network is assumed. Following this analysis is an identification of the project’s cumulative impacts at the Interstate 80/Sierra College Boulevard interchange and along the Interstate 80 mainline.

2025 No Project without Dominguez Road

Weekday and Saturday peak-hour forecast traffic volumes for the 2025 no project without Dominguez Road scenario are shown in Exhibit 6-1 and Exhibit 6-2. The LOS for study area intersections and roadway segments are shown in Table 6-2 and Table 6-3. The 2025 no project without Dominguez Road traffic volume development and LOS worksheets are provided in Appendix B (Appendix G of Appendix B). All 2025 LOS include the roadway improvements assumed in the baseline condition, as well as implementation of the City’s General Plan roadway system as documented in the City General Plan Circulation Element. The LOS also includes the following improvements to the intersection of Sierra College Boulevard/Rocklin Road, which is planned as part of either an adjacent development project or the Sierra College Boulevard widening project: (1) Northbound – addition of a second left, third through, and exclusive right-turn lanes; (2) Southbound – addition of a third through and exclusive right-turn lanes; and (3) Westbound – addition of a second left and second through lanes. There is an approved, not-yet-built project that is partially obligated to construct these improvements. The 2025 intersection geometrics and traffic control are shown in Exhibit 6-3.

As shown in Table 6-2, the following 12 intersections are forecast to operate at unsatisfactory LOS in the 2025 No Project without Dominguez Road scenario:

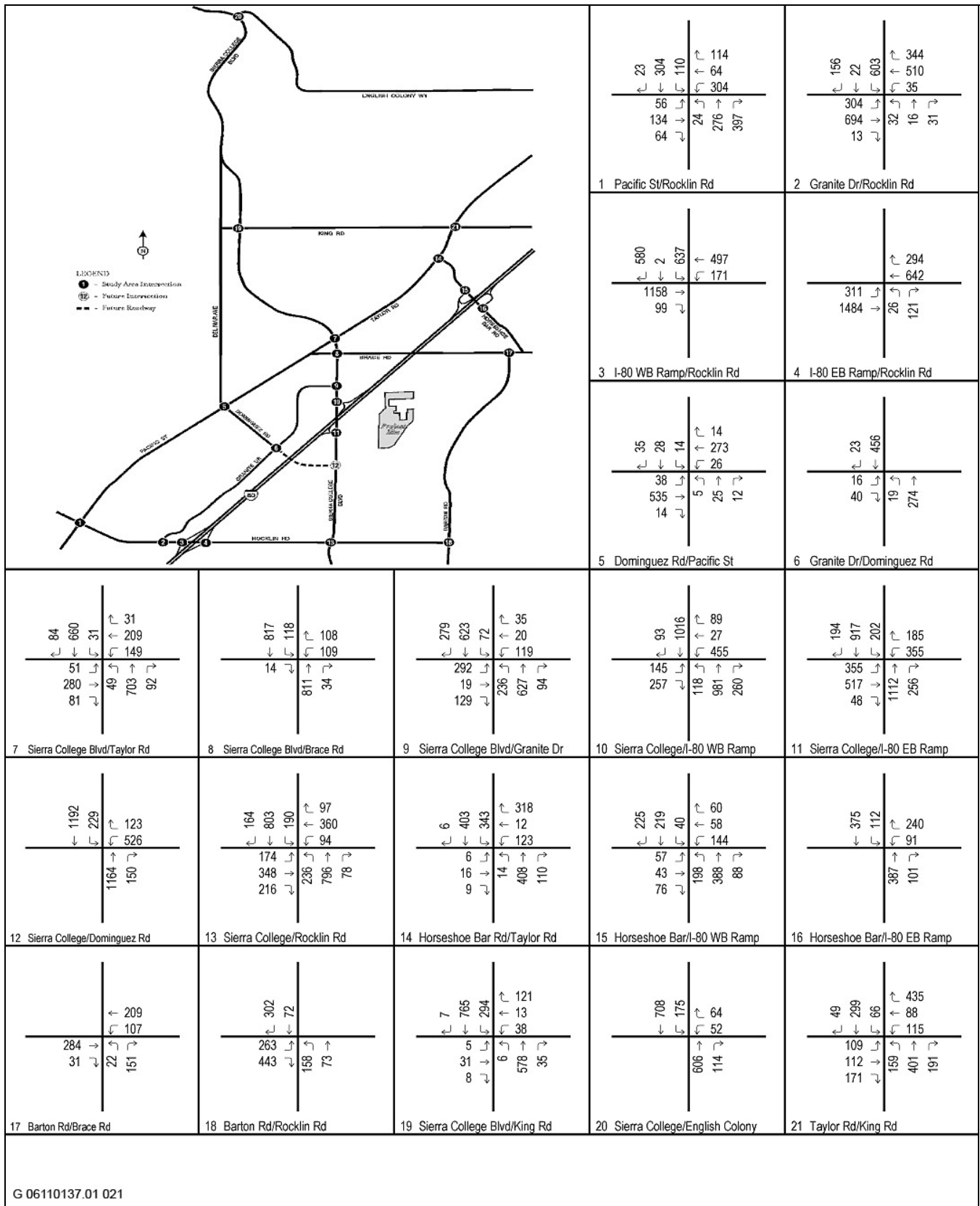
- ▶ Rocklin Road/Pacific Street
- ▶ Rocklin Road/Granite Drive
- ▶ Rocklin Road/I-80 Westbound Ramps
- ▶ Rocklin Road/I-80 Eastbound Ramps
- ▶ Sierra College Boulevard/Taylor Road
- ▶ Sierra College Boulevard/Rocklin Road
- ▶ Taylor Road/Horseshoe Bar Road (Loomis)
- ▶ Barton Road/Brace Road (Loomis)
- ▶ Barton Road/Rocklin Road (Loomis)
- ▶ Sierra College Boulevard/King Road (Loomis)
- ▶ Sierra College Boulevard/English Colony Way (Placer County)
- ▶ Taylor Road/King Road (Loomis)



Source: LSA 2007

Year 2025 No Project Peak Hour Traffic Volumes – Without Dominguez Road

Exhibit 6-1



Source: LSA 2007

Year 2025 No Project Saturday Peak Hour Traffic Volumes – Without Dominguez Road Exhibit 6-2

**Table 6-2
2025 No Project without Dominguez Road Condition Peak Hour Intersection Level of Service Summary**

Intersection	2025 No Project without Dominguez Road Condition					
	AM Peak Hour		PM Peak Hour		Saturday	
	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS
1 Rocklin Road/Pacific Street ¹	0.733	C	0.828	D	0.610	B
2 Rocklin Road/Granite Drive	0.682	B	0.956	E	0.697	B
3 Rocklin Road/I-80 Westbound Ramps	0.872	D	1.211	F	1.022	F
4 Rocklin Road/I-80 Eastbound Ramps	1.035	F	1.052	F	0.652	B
5 Dominguez Road/Pacific Street ¹	0.577	A	0.764	C	0.436	A
6 Dominguez Road/Granite Drive ¹	13.1 sec	B	15.4 sec	C	11.2 sec	B
7 Sierra College Boulevard/Taylor Road (Loomis)	1.011	F	1.011	F	0.635	B
8 Sierra College Boulevard/Brace Road (Loomis)	0.587	A	0.777	C	0.396	A
9 Sierra College Boulevard/Granite Drive	0.677	B	0.729	C	0.646	B
10 Sierra College Boulevard/I-80 Westbound Ramps	0.710	C	0.704	C	0.671	B
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.722	C	0.773	C	0.773	C
12 Sierra College Boulevard/Dominguez Road	0.463	A	0.707	C	0.711	C
13 Sierra College Boulevard/Rocklin Road ¹	0.874	D	0.704	D	0.580	A
14 Taylor Road/Horseshoe Bar Road (Loomis)	1.135	F	1.227	F	0.803	D
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.549	A	0.506	A	0.464	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps ² (Loomis)	30.2 sec	D	27.7 sec	D	17.1 sec	C
17 Barton Road/Brace Road ^{1,2} (Loomis)	83.7 sec	F	66.2 sec	F	12.4 sec	B
18 Barton Road/Rocklin Road ^{1,2} (Loomis)	300.1 sec	F	27.3 sec	D	19.8 sec	C
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.697	B	0.867	D	0.563	A
20 Sierra College Boulevard/English Colony Way ^{1,2} (Placer County)	301.4 sec	F	833.6 sec	F	39.3 sec	E
21 Taylor Road/King Road ¹ (Loomis)	0.968	E	0.627	B	0.726	C

Notes: ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

² Peak Hour volumes meet Signal Warrant #3 of the MUTCD.

* Delay exceeds 1,000 seconds.

Outline indicates exceeds level of service criteria.

**Table 6-3
2025 No Project Without Dominguez Road – Daily Roadway Segment Level of Service Summary**

Roadway	Segment	Capacity	Volume	Configuration	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	15,000	20,409	Two-lane Collector	1.36	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	15,000	15,421	Two-lane Collector	1.03	F
Pacific Street	Sierra College Boulevard and Dominguez Road ¹	30,000	18,205	Four-lane Undivided Arterial	0.61	B
	Dominguez Road and Rocklin Road ¹	30,000	22,365	Four-lane Undivided Arterial	0.75	C
Rocklin Road	Pacific Street and Granite Drive	30,000	37,834	Four-lane Undivided Arterial	1.26	F
	I-80 and Sierra College Boulevard	30,000	17,966	Four-lane Undivided Arterial	0.60	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	30,000	15,451	Four-lane Undivided Arterial	0.52	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	15,000	6,952	Two-lane Collector	0.46	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	15,000	10,033	Two-lane Collector	0.67	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	15,000	9,834	Two-lane Collector	0.66	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	15,000	9,202	Two-lane Collector	0.61	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	30,000	24,674	Four-lane Undivided Arterial	0.82	D
	King Road and Taylor Road ¹ (Loomis)	30,000	23,522	Four-lane Undivided Arterial	0.78	C
	Taylor Road and I-80	50,525	36,020	Six-lane Arterial	0.71	C
	I-80 and Dominguez Road	50,525	34,944	Six-lane Arterial	0.69	B
	Dominguez Road and Rocklin Road ¹	50,525	36,188	Six-lane Arterial	0.72	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	30,000	11,377	Four-lane Undivided Arterial	0.38	A
	Dominguez Road and Rocklin Road ¹	30,000	14,048	Four-lane Undivided Arterial	0.47	A
Dominguez Road	Taylor Road and Granite Drive ¹	15,000	5,042	Two-lane Collector	0.34	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	15,000	7,037	Two-lane Collector	0.47	A
Notes: ¹ LOS C required for these segments. LOS D acceptable for all other segments. Outline indicates exceeds level of service criteria. Bold indicates Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Penryn Community Plan.						

The results of the roadway analysis as shown in Table 6-3 indicate that most of the study area roadway segments are forecast to operate within their daily roadway capacities with the exception of the following four segments:

- ▶ Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- ▶ Taylor Road between Horseshoe Bar Road and Sierra College Boulevard (Loomis)
- ▶ Rocklin Road between Pacific Street and Granite Drive

2025 Plus Project without Dominguez Road

Traffic volumes generated by the proposed project were added to the 2025 no project traffic volumes, and LOS were calculated for the 2025 plus project scenario. Weekday and Saturday peak-hour forecast traffic volumes for the 2025 plus project without Dominguez Road scenario are shown in Exhibit 6-4 and Exhibit 6-5. The LOS for study area intersections and roadway segments in the 2025 plus project without Dominguez Road scenario are shown in Table 6-4 and Table 6-5. The 2025 plus project without Dominguez Road LOS worksheets are provided in Appendix B (Appendix H of Appendix B).

CUMULATIVE IMPACT 6-1 Intersections without Dominguez Road. *The addition of project-related traffic to cumulative traffic volumes would degrade traffic operations at seven intersections that currently operate unacceptably. Although these intersections already operate unacceptably, the project's contribution would represent less than a 5 percent increase in the volume/capacity ratio. Therefore, this impact would be considered less than significant.*

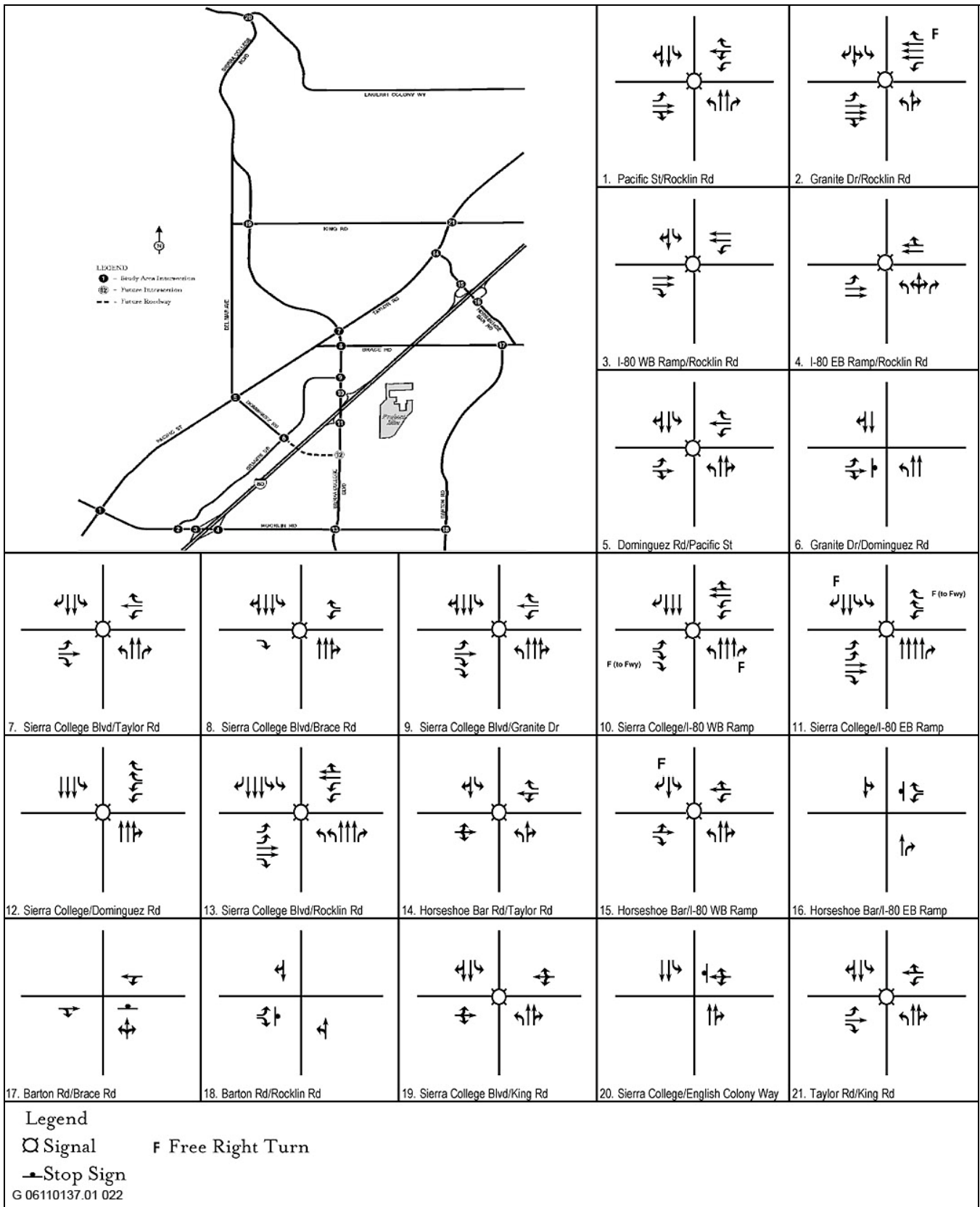
The addition of project-related traffic to cumulative traffic volumes without Dominguez Road would degrade traffic operations at the following 12 intersections:

- ▶ Rocklin Road/Pacific Street
- ▶ Rocklin Road/Granite Drive
- ▶ Rocklin Road/I-80 Westbound Ramps
- ▶ Rocklin Road/I-80 Eastbound Ramps
- ▶ Sierra College Boulevard/Taylor Road
- ▶ Sierra College Boulevard/Rocklin Road
- ▶ Taylor Road/Horseshoe Bar Road (Loomis)
- ▶ Barton Road/Brace Road (Loomis)
- ▶ Barton Road/Rocklin Road (Loomis)
- ▶ Sierra College Boulevard/King Road (Loomis)
- ▶ Sierra College Boulevard/English Colony Way (Placer County)
- ▶ Taylor Road/King Road (Loomis)

However, as identified in Table 6-4, the v/c ratio at these intersections would not be increased by more than 5 percent (0.05) and the LOS would not change one full letter grade with the addition of project traffic. As a result, this impact would be considered **less than cumulatively considerable** and **less than significant**.

Mitigation Measure 6-1 Intersections without Dominguez Road

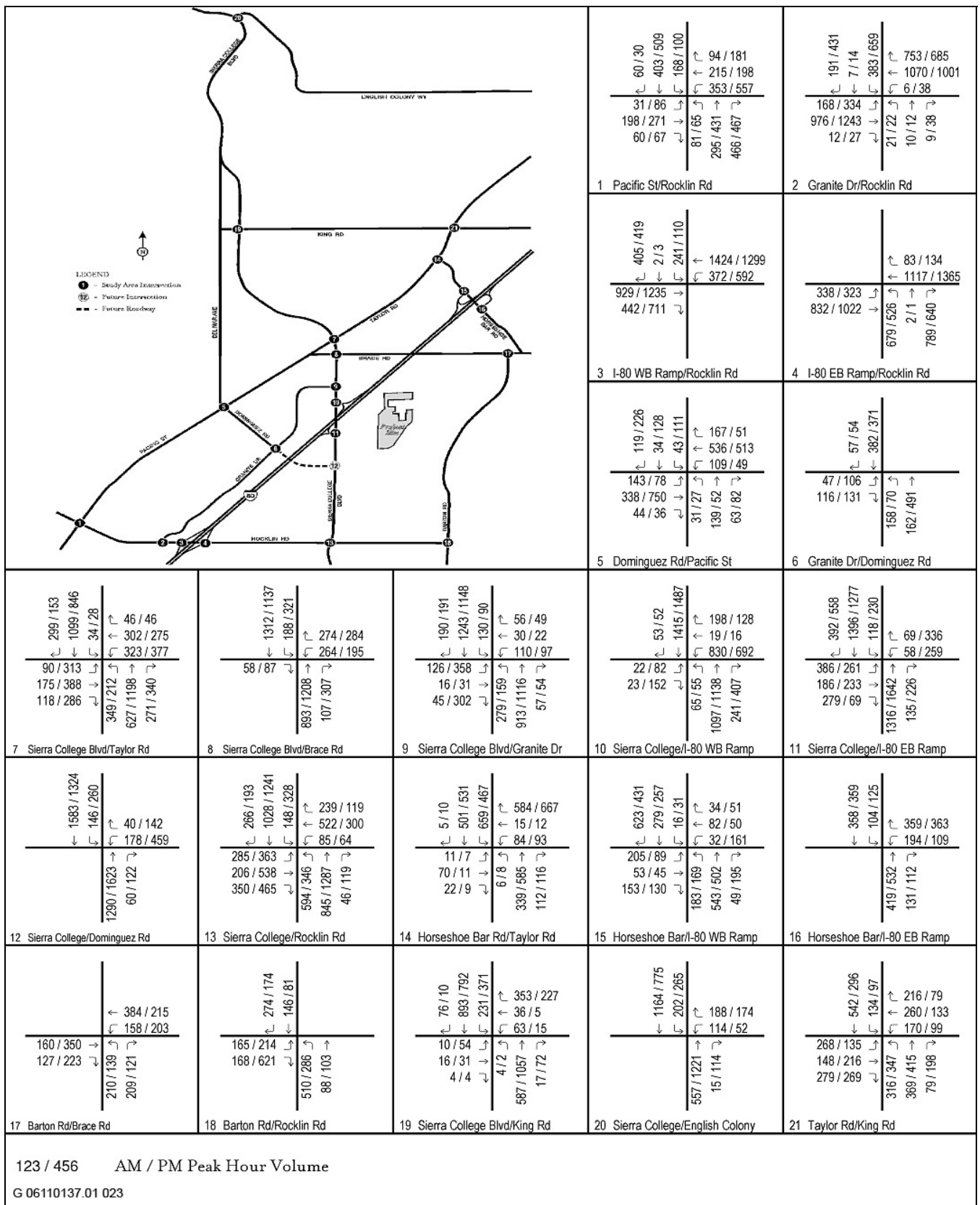
No mitigation is necessary.



Source: LSA 2007

Year 2025 Geometrics and Traffic Control

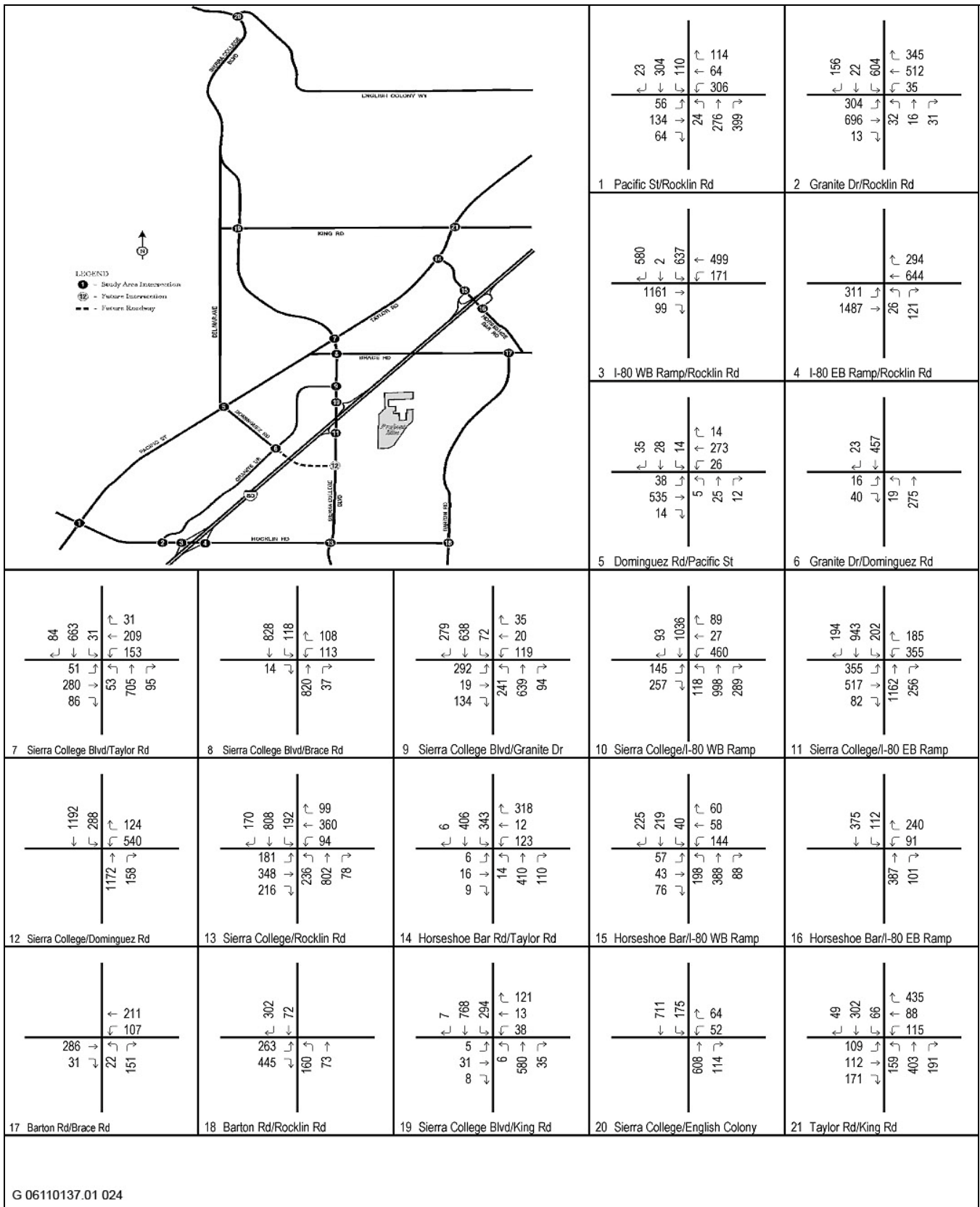
Exhibit 6-3



Source: LSA 2007

Year 2025 Plus Project Peak Hour Traffic Volumes – Without Dominguez Road

Exhibit 6-4



Source: LSA 2007

Year 2025 Plus Project Saturday Peak Hour Traffic Volumes – Without Dominguez Road Exhibit 6-5

**Table 6-4
2025 Plus Project without Dominguez Road Condition Peak Hour Intersection Level of Service Summary**

Intersection	2025 No Project without Dominguez Road Condition						2025 Plus Project without Dominguez Road Condition					
	AM Peak Hour		PM Peak Hour		Saturday		AM Peak Hour		PM Peak Hour		Saturday	
	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS
1 Rocklin Road/Pacific Street ¹	0.773	C	0.828	D	0.610	B	0.774	C	0.830	D ²	0.612	B
2 Rocklin Road/Granite Drive	0.682	B	0.956	E	0.697	B	0.682	B	0.957	E ²	0.698	B
3 Rocklin Road/I-80 Westbound Ramps	0.872	D	1.211	F	1.022	F	0.873	D	1.211	F ²	1.023	F ²
4 Rocklin Road/I-80 Eastbound Ramps	1.035	F	1.052	F	0.652	B	1.036	F ²	1.053	F ²	0.653	B
5 Dominguez Road/Pacific Street ¹	0.577	A	0.764	C	0.436	A	0.578	A	0.764	C	0.436	A
6 Dominguez Road/Granite Drive ¹	13.1 sec	B	15.4 sec	C	11.2 sec	B	13.1 sec	B	15.5 sec	C	11.2 sec	B
7 Sierra College Boulevard/Taylor Road (Loomis)	1.011	F	1.011	F	0.635	B	1.016	F ² D	1.012	F ²	0.640	B
8 Sierra College Boulevard/Brace Road (Loomis)	0.587	A	0.777	C	0.396	A	0.592	A	0.778	C	0.401	A
9 Sierra College Boulevard/Granite Drive	0.677	B	0.729	C	0.646	B	0.683	B	0.736	C	0.653	B
10 Sierra College Boulevard/I-80 Westbound Ramps	0.710	C	0.704	C	0.671	B	0.712	C	0.712	C	0.678	B
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.722	C	0.773	C	0.773	C	0.734	C	0.785	C	0.782	C
12 Sierra College Boulevard/Dominguez Road	0.463	A	0.707	C	0.711	C	0.487	A	0.768	C	0.762	C
13 Sierra College Boulevard/Rocklin Road ¹	0.874	D	0.804	D	0.580	A	0.878	D ²	0.807	D ²	0.585	A
14 Taylor Road/Horseshoe Bar Road (Loomis)	1.135	F	1.227	F	0.803	D	1.137	F ²	1.228	F ²	0.805	D
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.549	A	0.506	A	0.464	A	0.549	A	0.506	A	0.464	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps ³ (Loomis)	30.2 sec	D	27.7 sec	D	17.1 sec	C	30.2 sec	D	27.7 sec	D	17.1 sec	C
17 Barton Road/Brace Road ^{1,3} (Loomis)	83.7 sec	F	66.2 sec	F	12.4 sec	B	85.2 sec	F ²	68.0 sec	F ²	12.4 sec	B
18 Barton Road/Rocklin Road ^{1,3} (Loomis)	300.1 sec	F	27.3 sec	D	19.8 sec	C	304.7 sec	F ²	27.6 sec	D	19.8 sec	C
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.697	B	0.867	D	0.563	A	0.698	B	0.868	D ²	0.564	A
20 Sierra College Boulevard/English Colony Way ^{1,3} (Placer County)	301.4 sec	F	833.6 sec	F	39.3 sec	E	305.0 sec	F ²	840.9 sec	F ²	39.6 sec	E ²
21 Taylor Road/King Road ¹ (Loomis)	0.968	E	0.627	B	0.726	C	0.968	E ²	0.628	B	0.727	C

Notes: ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

² Project impact is less than 5% of total intersection V/C or delay and therefore not a significant impact.

³ Peak Hour volumes meet Signal Warrant #3 of the MUTCD.

Outline indicates exceeds level of service criteria.

Table 6-5 2025 Plus Project Without Dominguez Road – Daily Roadway Segment Level of Service Summary						
Roadway	Segment	Capacity	Volume	Configuration	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	15,000	20,459	Two-lane Collector	1.36	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	15,000	15,471	Two-lane Collector	1.03	F
Pacific Street	Sierra College Boulevard and Dominguez Road ¹	30,000	18,235	Four-lane Undivided Arterial	0.61	B
	Dominguez Road and Rocklin Road ¹	30,000	22,385	Four-lane Undivided Arterial	0.75	C
Rocklin Road	Pacific Street and Granite Drive	30,000	37,864	Four-lane Undivided Arterial	1.26	F
	I-80 and Sierra College Boulevard	30,000	18,006	Four-lane Undivided Arterial	0.60	B
	Sierra College Boulevard and Barton Road ¹ (Loomis)	30,000	15,501	Four-lane Undivided Arterial	0.52	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	15,000	6,962	Two-lane Collector	0.46	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	15,000	10,033	Two-lane Collector	0.67	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	15,000	9,864	Two-lane Collector	0.66	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	15,000	9,202	Two-lane Collector	0.61	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	30,000	24,724	Four-lane Undivided Arterial	0.82	D
	King Road and Taylor Road ¹ (Loomis)	30,000	23,682	Four-lane Undivided Arterial	0.79	C
	Taylor Road and I-80	50,525	36,360	Six-lane Arterial	0.72	C
	I-80 and Dominguez Road	50,525	35,494	Six-lane Arterial	0.70	B
	Dominguez Road and Rocklin Road ¹	50,525	36,348	Six-lane Arterial	0.72	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	30,000	11,387	Four-lane Undivided Arterial	0.38	A
	Dominguez Road and Rocklin Road ¹	30,000	14,068	Four-lane Undivided Arterial	0.47	A
Dominguez Road	Taylor Road and Granite Drive ¹	15,000	5,042	Two-lane Collector	0.34	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	15,000	7,037	Two-lane Collector	0.47	A
<p>Notes: ¹ LOS C required for these segments. LOS D acceptable for all other segments. Outline indicates exceeds level of service criteria. Bold indicates Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Penryn Community Plan.</p>						

CUMULATIVE IMPACT 6-2 **Roadway Segments without Dominguez Road.** *The proposed project would contribute traffic to three roadway segments that are forecast to operate unsatisfactorily without the project in the cumulative without Dominguez Road scenario. However, a comparison of the no project conditions with the project volume-to-capacity conditions indicates that no change would occur in the three affected roadway segments. As a result, the addition of project traffic is not considered measurable and the impact would be considered **less than significant**.*

As shown in Table 6-5, most of the study area roadway segments are forecast to operate within their daily roadway capacities except for the four roadway segments:

- ▶ Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- ▶ Sierra College Boulevard between Taylor Road and I-80
- ▶ Sierra College Boulevard between Dominguez Road and Rocklin Road
- ▶ Sierra College Boulevard between English Colony Way and King Road (Placer County)

However, a comparison of the no project conditions with the project volume-to-capacity conditions indicates that no change would occur in the three affected roadway segments. As a result, the addition of project traffic is not considered measurable and the impact would be considered **less than significant**.

Mitigation Measure 6-2 Roadway Segments without Dominguez Road

No mitigation is necessary.

Dominguez Road Sensitivity Analysis

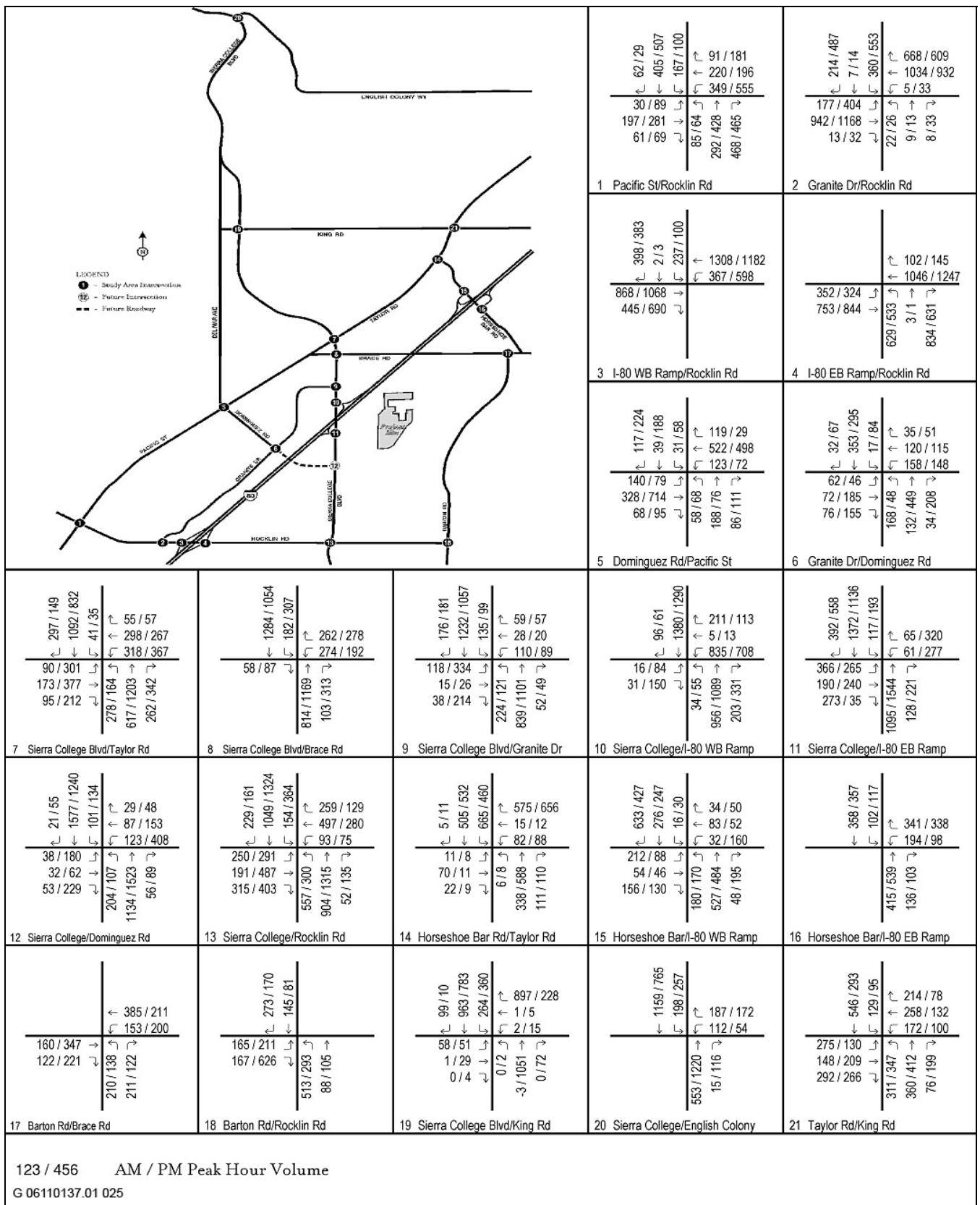
An analysis of forecast year 2025 traffic volumes was prepared assuming that Dominguez Road is extended east to Sierra College Boulevard. This alternative network is referred to as “with Dominguez Road” and is intended to provide a sensitivity analysis of the effects of extending Dominguez Road.

2025 No Project with Dominguez Road

Weekday and Saturday peak-hour forecast traffic volumes for the 2025 no project with Dominguez Road scenario are shown in Exhibit 6-6 and Exhibit 6-7. The LOS for study area intersections and roadway segments are shown in Tables 6-6 and 6-7. The 2025 no project with Dominguez Road traffic volume development and LOS worksheets are provided in Appendix B (Appendix I of Appendix B).

As shown in Table 6-6, the following 15 intersections are forecast to operate at unsatisfactory LOS in the 2025 no project with Dominguez Road condition:

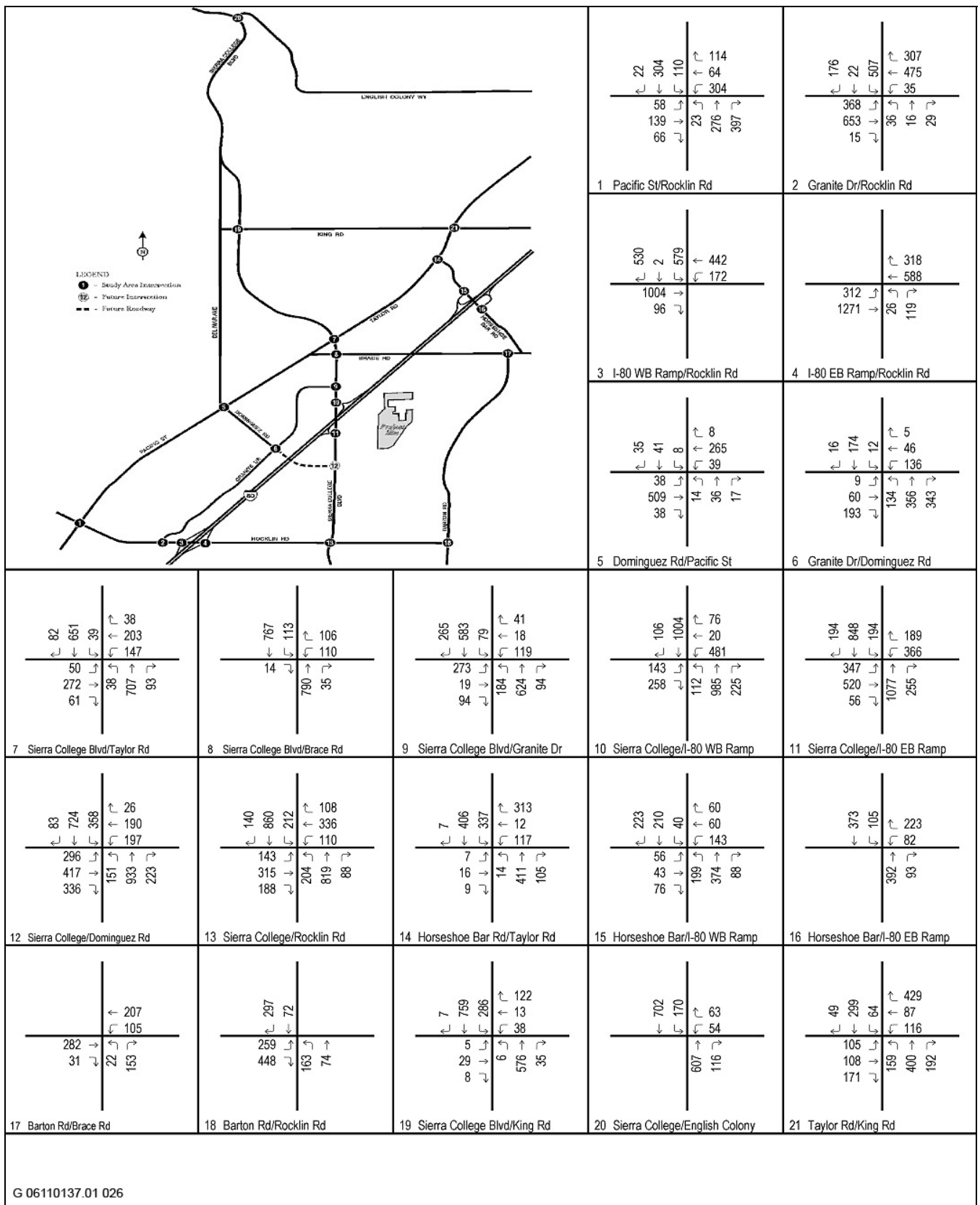
- ▶ Rocklin Road/Pacific Street
- ▶ Rocklin Road/Granite Drive
- ▶ Rocklin Road/I-80 Westbound Ramps
- ▶ Rocklin Road/I-80 Eastbound Ramps
- ▶ Dominguez Road/Pacific Street
- ▶ Dominguez Road/Granite Drive
- ▶ Sierra College Boulevard/Taylor Road (Loomis)
- ▶ Sierra College Boulevard/Dominguez Road
- ▶ Sierra College Boulevard/Rocklin Road
- ▶ Taylor Road/Horseshoe Bar Road (Loomis)
- ▶ Barton Road/Brace Road (Loomis)
- ▶ Barton Road/Rocklin Road (Loomis)
- ▶ Sierra College Boulevard/King Road (Loomis)
- ▶ Sierra College Boulevard/English Colony Way (Placer County)
- ▶ Taylor Road/King Road (Loomis)



Source: LSA 2007

Year 2025 No Project Peak Hour Traffic Volumes – With Dominguez Road

Exhibit 6-6



Source: LSA 2007

Year 2025 No Project Saturday Peak Hour Traffic Volumes – With Dominguez Road

Exhibit 6-7

**Table 6-6
2025 No Project with Dominguez Road Condition Peak Hour Intersection Level of Service Summary**

Intersection	2025 No Project with Dominguez Road Condition					
	AM Peak Hour		PM Peak Hour		Saturday	
	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS
1 Rocklin Road/Pacific Street ¹	0.775	C	0.831	D	0.612	B
2 Rocklin Road/Granite Drive	0.676	B	1.020	F	0.691	B
3 Rocklin Road/I-80 Westbound Ramps	0.851	D	1.175	F	0.929	E
4 Rocklin Road/I-80 Eastbound Ramps	1.027	F	1.016	F	0.642	B
5 Dominguez Road/Pacific Street ¹	0.582	A	0.823	D	0.451	A
6 Dominguez Road/Granite Drive ^{1,2}	50.4 sec	F	*	F	73.8 sec	F
7 Sierra College Boulevard/Taylor Road (Loomis)	0.956	E	1.004	F	0.635	B
8 Sierra College Boulevard/Brace Road (Loomis)	0.575	A	0.757	C	0.388	A
9 Sierra College Boulevard/Granite Drive	0.633	B	0.672	B	0.589	A
10 Sierra College Boulevard/I-80 Westbound Ramps	0.681	B	0.673	B	0.661	B
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.719	C	0.725	C	0.729	C
12 Sierra College Boulevard/Dominguez Road	0.552	A	0.796	C	1.040	F
13 Sierra College Boulevard/Rocklin Road ¹	0.852	D	0.787	C	0.575	A
14 Taylor Road/Horseshoe Bar Road (Loomis)	1.133	F	1.215	F	0.795	C
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.551	A	0.499	A	0.457	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps ² (Loomis)	29.4 sec	D	25.3 sec	D	16.5 sec	C
17 Barton Road/Brace Road ^{1,2} (Loomis)	80.6 sec	F	63.2 sec	F	12.7 sec	B
18 Barton Road/Rocklin Road ^{1,2} (Loomis)	312.2 sec	F	28.2 sec	D	23.7 sec	C
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.697	B	0.856	D	0.558	A
20 Sierra College Boulevard/English Colony Way ^{1,2} (Placer County)	280.1 sec	F	822.7 sec	F	47.4 sec	E
21 Taylor Road/King Road ¹ (Loomis)	0.968	E	0.625	B	0.716	C

Notes: ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

² Peak Hour volumes meet Signal Warrant #3 of the MUTCD.

* Delay exceeds 1,000 seconds.

Outline indicates exceeds level of service criteria.

As shown in Table 6-7, the results of the roadway segment analysis indicate that most of the study area roadway segments are forecast to operate within their daily roadway capacities except for the following four segments:

- ▶ Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- ▶ Taylor Road between Horseshoe Bar Road and Sierra College Boulevard (Loomis)
- ▶ Rocklin Road between Pacific Street and Granite Drive
- ▶ Sierra College Boulevard between English Colony Way and King Road (Placer County)

Table 6-7 2025 No Project With Dominguez Road – Daily Roadway Segment Level of Service Summary						
Roadway	Segment	Capacity	Volume	Configuration	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	15,000	20,364	Two-lane Collector	1.36	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	15,000	15,480	Two-lane Collector	1.03	F
Pacific Street	Sierra College Boulevard and Dominguez Road ¹	30,000	16,946	Four-lane Undivided Arterial	0.56	A
	Dominguez Road and Rocklin Road ¹	30,000	22,649	Four-lane Undivided Arterial	0.75	C
Rocklin Road	Pacific Street and Granite Drive	30,000	37,837	Four-lane Undivided Arterial	1.26	F
	I-80 and Sierra College Boulevard	30,000	14,796	Four-lane Undivided Arterial	0.49	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	30,000	15,666	Four-lane Undivided Arterial	0.52	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	15,000	6,872	Two-lane Collector	0.46	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	15,000	9,958	Two-lane Collector	0.66	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	15,000	9,795	Two-lane Collector	0.65	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	15,000	9,161	Two-lane Collector	0.61	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	30,000	24,682	Four-lane Undivided Arterial	0.82	D
	King Road and Taylor Road ¹ (Loomis)	30,000	23,610	Four-lane Undivided Arterial	0.79	C
	Taylor Road and I-80	50,525	35,053	Six-lane Arterial	0.69	B
	I-80 and Dominguez Road	50,525	33,796	Six-lane Arterial	0.67	B
	Dominguez Road and Rocklin Road ¹	50,525	37,708	Six-lane Arterial	0.75	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	30,000	9,220	Four-lane Undivided Arterial	0.31	A
	Dominguez Road and Rocklin Road ¹	30,000	13,359	Four-lane Undivided Arterial	0.45	A
Dominguez Road	Taylor Road and Granite Drive ¹	15,000	7,378	Two-lane Collector	0.49	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	15,000	7,019	Two-lane Collector	0.47	A
Notes: ¹ LOS C required for these segments. LOS D acceptable for all other segments. Outline indicates exceeds level of service criteria. Bold indicates Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Penryn Community Plan.						

2025 Plus Project with Dominguez Road

Traffic volumes generated by the proposed project were added to the 2025 no project traffic volumes, and LOS were calculated for the 2025 plus project with Dominguez Road scenario. Weekday and Saturday peak-hour forecast traffic volumes for the 2025 plus project with Dominguez Road scenario are shown in Exhibit 6-8 and Exhibit 6-9. The LOS for study area intersections and roadway segments in the 2025 plus project with Dominguez Road scenario are shown in Table 6-8 and Table 6-9. The 2025 plus project with Dominguez Road LOS worksheets are provided in Appendix B (Appendix J of Appendix B).

CUMULATIVE IMPACT 6-3 **Intersections with Dominguez Road.** *The addition of project-related traffic to cumulative traffic volumes would degrade traffic operations at seven intersections that currently operate unacceptably. Although these intersections already operate unacceptably, the project's contribution would represent less than a 5 percent increase in the volume/capacity ratio. Therefore, this impact would be considered **less than significant**.*

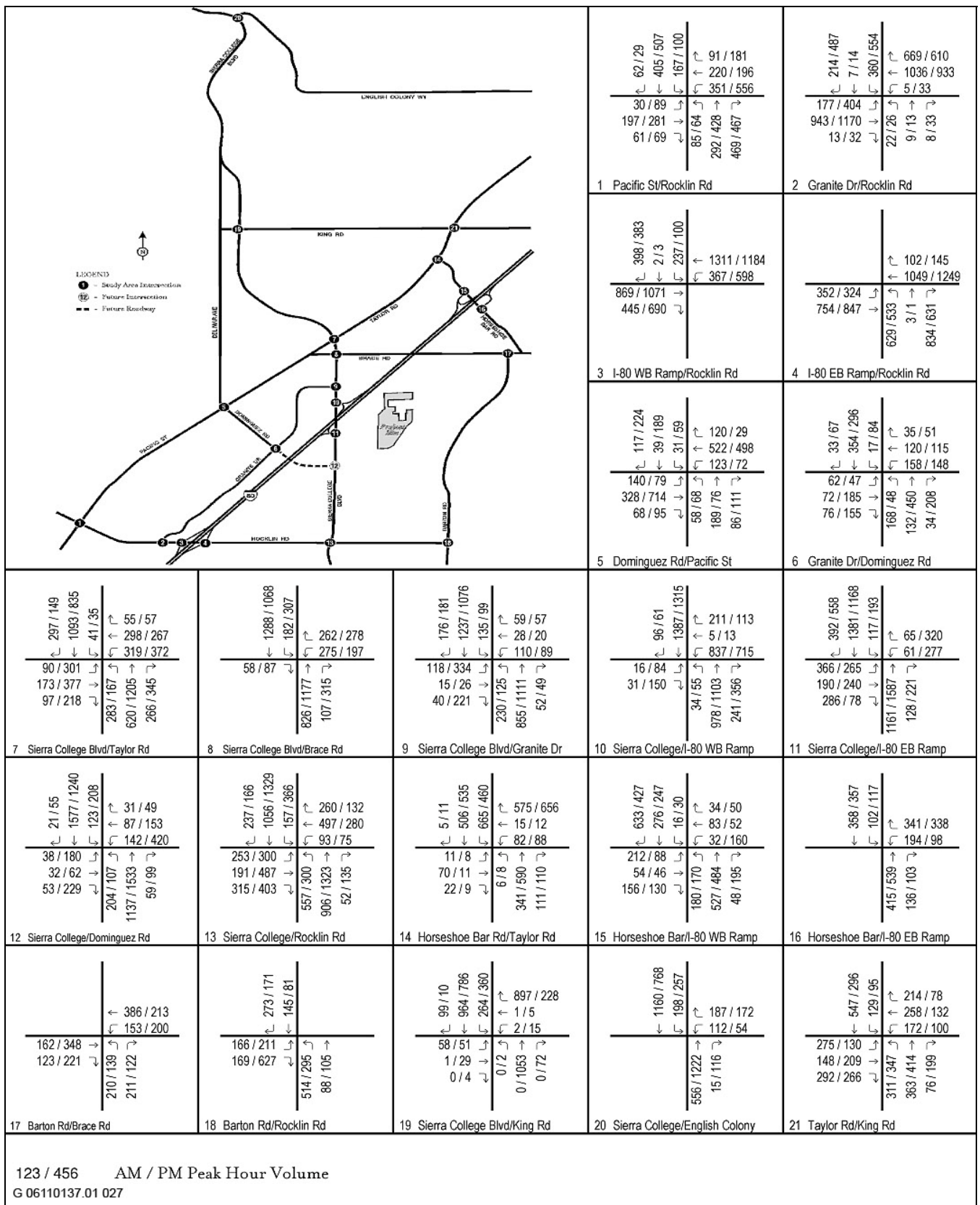
The addition of project-related traffic to cumulative traffic volumes with Dominguez Road would degrade traffic operations at the following seven intersections:

- ▶ Rocklin Road/Pacific Street
- ▶ Rocklin Road/Granite Drive
- ▶ Rocklin Road/I-80 Westbound Ramps
- ▶ Rocklin Road/I-80 Eastbound Ramps
- ▶ Dominguez Road/Pacific Street
- ▶ Dominguez Road/Granite Drive
- ▶ Sierra College Boulevard/Taylor Road (Loomis)
- ▶ Sierra College Boulevard/Dominguez Road
- ▶ Sierra College Boulevard/Rocklin Road
- ▶ Taylor Road/Horseshoe Bar Road (Loomis)
- ▶ Barton Road/Brace Road (Loomis)
- ▶ Barton Road/Rocklin Road (Loomis)
- ▶ Sierra College Boulevard/King Road (Loomis)
- ▶ Sierra College Boulevard/English Colony Way (Placer County)
- ▶ Taylor Road/King Road (Loomis)

However, as identified in Table 6-8, the v/c ratio at these intersections would not be increased by more than 5 percent (0.05) and the LOS would not change one full letter grade with the addition of project traffic. As a result, this impact would be considered **less than significant**.

Mitigation Measure 6-3: Intersections with Dominguez Road.

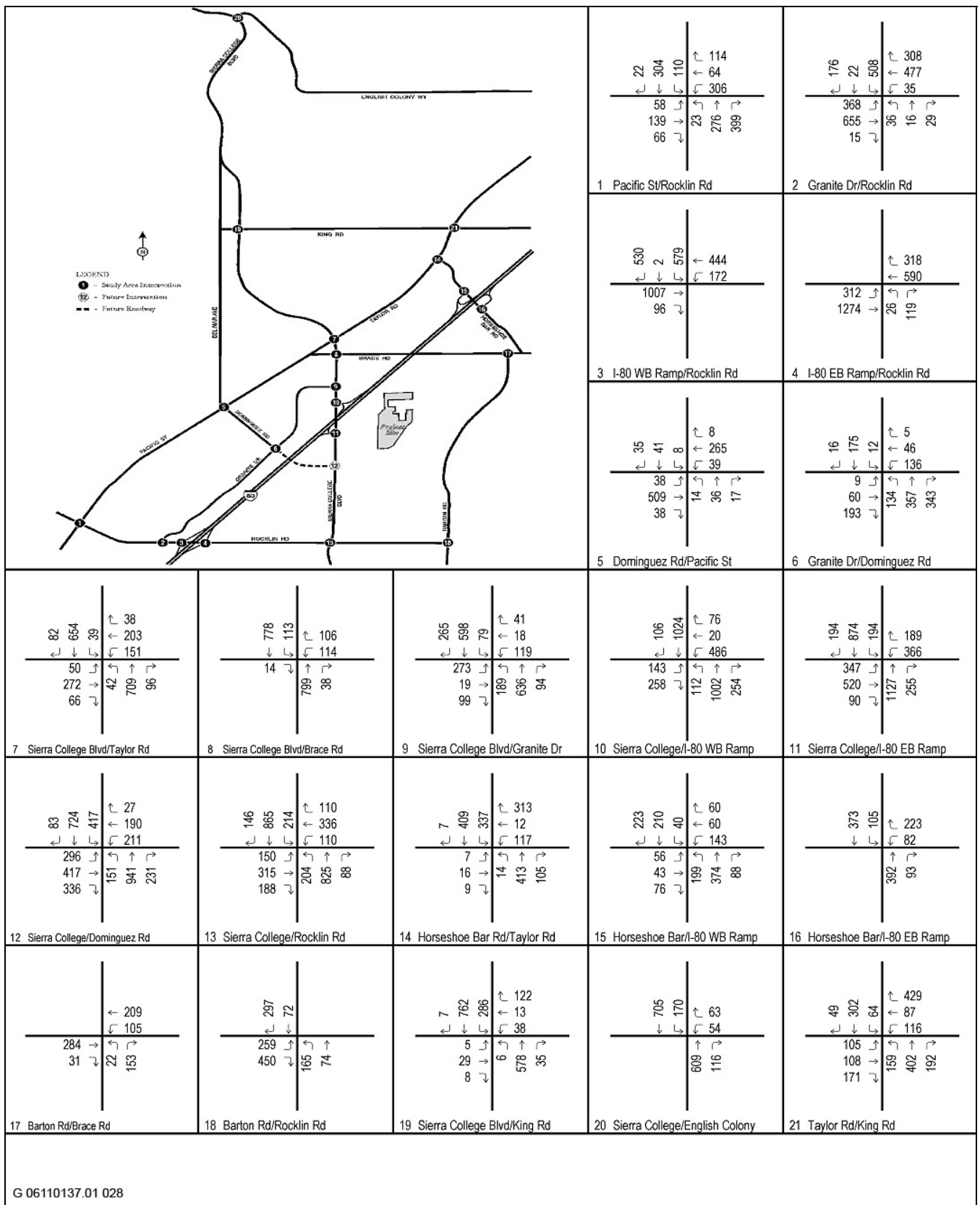
No mitigation is necessary.



Source: LSA 2007

Year 2025 Plus Project Peak Hour Traffic Volumes – With Dominguez Road

Exhibit 6-8



Source: LSA 2007

Year 2025 Plus Project Saturday Peak Hour Traffic Volumes – With Dominguez Road

Exhibit 6-9

**Table 6-8
2025 Plus Project with Dominguez Road Condition Peak Hour Intersection Level of Service Summary**

Intersection	2025 No Project with Dominguez Road Condition						2025 Plus Project with Dominguez Road Condition					
	AM Peak Hour		PM Peak Hour		Saturday		AM Peak Hour		PM Peak Hour		Saturday	
	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS	V/C Ratio / Delay	LOS
1 Rocklin Road/Pacific Street ¹	0.775	C	0.831	D	0.612	B	0.777	C	0.833	D ²	0.614	B
2 Rocklin Road/Granite Drive	0.676	B	1.020	F	0.691	B	0.677	B	1.021	F ²	0.692	B
3 Rocklin Road/I-80 Westbound Ramps	0.851	D	1.175	F	0.929	E	0.851	D	1.175	F ²	0.931	E ²
4 Rocklin Road/I-80 Eastbound Ramps	1.027	F	1.016	F	0.642	B	1.028	F ²	1.016	F ²	0.643	B
5 Dominguez Road/Pacific Street ¹	0.582	A	0.823	D	0.451	A	0.583	A	0.823	D ²	0.451	A
6 Dominguez Road/Granite Drive ^{1,3}	50.4 sec	F	*	F	80.6 sec	F	50.6 sec	F ²	*	F ²	81.3 sec	F ²
7 Sierra College Boulevard/Taylor Road (Loomis)	0.956	E	1.004	F	0.635	B	0.961	E ²	1.008	F ²	0.639	B
8 Sierra College Boulevard/Brace Road (Loomis)	0.575	A	0.757	C	0.388	A	0.580	A	0.764	C	0.394	A
9 Sierra College Boulevard/Granite Drive	0.633	B	0.672	B	0.589	A	0.639	B	0.860	B	0.596	A
10 Sierra College Boulevard/I-80 Westbound Ramps	0.681	B	0.673	B	0.661	B	0.683	B	0.681	B	0.668	B
11 Sierra College Boulevard/I-80 Eastbound Ramps	0.719	C	0.725	C	0.729	C	0.731	C	0.737	C	0.738	C
12 Sierra College Boulevard/Dominguez Road	0.552	A	0.796	C	1.040	F	0.559	A	0.857	D	1.090	F ²
13 Sierra College Boulevard/Rocklin Road ¹	0.852	D	0.787	C	0.575	A	0.855	D ²	0.790	C	0.580	A
14 Taylor Road/Horseshoe Bar Road (Loomis)	1.133	F	1.215	F	0.795	C	1.135	F ²	1.216	F ²	0.797	C
15 Horseshoe Bar Road/I-80 Westbound Ramps (Loomis)	0.551	A	0.499	A	0.457	A	0.551	A	0.499	A	0.457	A
16 Horseshoe Bar Road/I-80 Eastbound Ramps ³ (Loomis)	29.4 sec	D	25.3 sec	D	16.5 sec	C	29.4 sec	D	25.3 sec	D	16.5 sec	C
17 Barton Road/Brace Road ^{1,3} (Loomis)	80.6 sec	F	63.2 sec	F	12.7 sec	B	82.1 sec	F ³	64.9 sec	F ²	12.8 sec	B
18 Barton Road/Rocklin Road ^{1,3} (Loomis)	312.2 sec	F	28.2 sec	D	23.7 sec	C	316.9 sec	F ²	28.5 sec	D ²	24.0 sec	C
19 Sierra College Boulevard/King Road ¹ (Loomis)	0.697	B	0.856	D	0.558	A	0.698	B	0.857	D ²	0.558	A
20 Sierra College Boulevard/English Colony Way ^{1,3} (Placer County)	280.1 sec	F	822.7 sec	F	47.4 sec	E	283.5 sec	F ²	829.80	F ²	47.9 sec	E ²
21 Taylor Road/King Road ¹ (Loomis)	0.968	E	0.625	B	0.716	C	0.968	E ²	0.626	B	0.717	C

Notes: ICU V/C ratio is used for signalized intersections. HCM delay in seconds is used for unsignalized intersections.

¹ LOS C required for these intersections. LOS D acceptable for all other intersections.

² Project impact is less than 5% of total intersection V/C or delay and therefore not a significant impact.

³ Peak Hour volumes meet Signal Warrant #3 of the MUTCD.

Outline indicates exceeds level of service criteria.

**Table 6-9
2025 Plus Project With Dominguez Road – Daily Roadway Segment Level of Service Summary**

Roadway	Segment	Capacity	Volume	Configuration	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	15,000	20,414	Two-lane Collector	1.36	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	15,000	15,530	Two-lane Collector	1.04	F
Pacific Street	Sierra College Boulevard and Dominguez Road ¹	30,000	16,976	Four-lane Undivided Arterial	0.57	A
	Dominguez Road and Rocklin Road ¹	30,000	22,669	Four-lane Undivided Arterial	0.76	C
Rocklin Road	Pacific Street and Granite Drive	30,000	37,867	Four-lane Undivided Arterial	1.26	F
	I-80 and Sierra College Boulevard	30,000	14,836	Four-lane Undivided Arterial	0.49	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	30,000	15,716	Four-lane Undivided Arterial	0.52	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	15,000	6,882	Two-lane Collector	0.46	A
Horseshoe Bar Road	I-80 and Brace Road (Loomis)	15,000	9,958	Two-lane Collector	0.66	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	15,000	9,825	Two-lane Collector	0.65	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	15,000	9,161	Two-lane Collector	0.61	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	30,000	24,732	Four-lane Undivided Arterial	0.82	D
	King Road and Taylor Road ¹ (Loomis)	30,000	23,770	Four-lane Undivided Arterial	0.79	C
	Taylor Road and I-80	50,525	35,393	Six-lane Arterial	0.70	B
	I-80 and Dominguez Road	50,525	34,346	Six-lane Arterial	0.68	B
	Dominguez Road and Rocklin Road ¹	50,525	37,868	Six-lane Arterial	0.75	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	30,000	9,230	Four-lane Undivided Arterial	0.31	A
	Dominguez Road and Rocklin Road ¹	30,000	13,379	Four-lane Undivided Arterial	0.45	A
Dominguez Road	Taylor Road and Granite Drive ¹	15,000	7,378	Two-lane Collector	0.49	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	15,000	7,019	Two-lane Collector	0.47	A
Notes: ¹ LOS C required for these segments. LOS D acceptable for all other segments. Outline indicates exceeds level of service criteria. Bold indicates Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Penryn Community Plan.						

CUMULATIVE IMPACT 6-4 **Roadway Segments with Dominguez Road.** *The proposed project would contribute traffic to four roadway segments that are forecast to operate unsatisfactorily without the project in the cumulative with Dominguez Road scenario. However, a comparison of the no project conditions with the project volume-to-capacity conditions indicates that no appreciable change would occur in the four affected roadway segments. The volume/capacity ratio increase would be less than 5 percent in all cases. As a result, the addition of project traffic is not considered measurable and the impact would be considered **less than significant**.*

As shown in Table 6-9, most of the study area roadway segments are forecast to operate within their daily roadway capacities except for the following roadway segments:

- ▶ Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- ▶ Taylor Road between Horseshoe Bar Road and Sierra College Boulevard (Loomis)
- ▶ Rocklin Road between Pacific Street and Granite Drive
- ▶ Sierra College Boulevard between English Colony Way and King Road (Placer County)

However, a comparison of the no project conditions with the project volume-to-capacity conditions indicates that no or negligible change would occur in the four affected roadway segments with Dominguez Road. The volume to capacity ratio increase would be less than 5 percent in all cases. Project traffic would not contribute to any exceedance of any local congestion standard with Dominguez Road. As a result, the addition of project traffic is not cumulatively considerable and the impact would be considered **less than significant**.

Mitigation Measure 6-4: Roadway Segments with Dominguez Road.

No mitigation is necessary.

I-80/Sierra College Interchange

CUMULATIVE IMPACT 6-5 **Interstate 80/Sierra College Boulevard Interchange.** *The proposed project would not degrade the Interstate 80/Sierra College Boulevard Interchange during the cumulative scenario. Therefore, the project's cumulative impacts on this interchange would be considered **less than significant**.*

Environmental documentation, including a traffic operations analysis, was previously completed for the I-80/Sierra College interchange project. The traffic operations analysis was completed using the Highway Capacity Manual (HCM) methodology for signalized intersections. Traffic volumes for the previous analysis were forecast using the Sacramento Metropolitan (SACMET-2001) traffic model developed by the Sacramento Area Council of Governments (SACOG). As discussed previously, 2025 forecasts for this traffic impact analysis were prepared using the City's traffic model. A LOS analysis using the HCM methodology has been prepared at the interchange ramp intersections using the traffic forecasts developed for this traffic impact analysis. The purpose of this analysis was to demonstrate that the intersection would still operate satisfactorily with the planned improvements when analyzed using the City's traffic model.

The levels of service were analyzed at the freeway ramp intersections in the cumulative plus project with and without Dominguez Road scenarios. The LOS calculation sheets are provided in Appendix B (Appendices K and L of Appendix B). Table 6-10 summarizes the results of the freeway interchange analysis.

As shown in Table 6-10, the interchange would operate at LOS D or better during both peak hours when the Rocklin Traffic Model with and without Dominguez Road traffic volumes are analyzed using the HCM methodology. Therefore, the project's cumulative impacts to the Interstate 80/Sierra College Boulevard interchange would be considered **less than significant**.

Table 6-10 I-80/Sierra College Boulevard Freeway Ramp Intersection Analysis (2025 Plus Project) HCM Methodology				
Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
10. I-80 Westbound/Sierra College Boulevard				
Rocklin Traffic Model with Dominguez Road ¹	38.5	D	45.7	D
Rocklin Traffic Model without Dominguez Road ¹	36.4	D	46.3	D
SACMET-2001 Model ²	18.7	B	14.3	B
11. I-80 Eastbound/Sierra College Boulevard				
Rocklin Traffic Model with Dominguez Road	18.0	B	32.4	C
Rocklin Traffic Model without Dominguez Road	21.3	C	32.7	C
SACMET-2001 Model ²	30.9	C	96.6	F
¹ Intersections analyzed using the Highway Capacity Manual rather than the Circular 212 methodology and using the traffic projections included in the City's traffic model. OMNI-MEANS, January 8, 2003.				
² Traffic Operations Analysis, I-80/Sierra College Boulevard Interchange, Table 4, Alternative A. OMNI-MEANS, January 8, 2003.				

Mitigation Measure 6-5: Interstate 80/Sierra College Boulevard Interchange

No mitigation is necessary.

Freeway Mainline Analysis

CUMULATIVE IMPACT 6-6 Freeway Mainline. *The freeway mainline and ramp junctions would operate acceptably during the cumulative scenario with the addition of project traffic. Therefore, the project's cumulative impacts on the freeway mainline would be considered less than significant.*

To assess the operation of the highway system in the vicinity of the project in 2025 without and with project conditions, the I-80 freeway mainline east and west of the Sierra College Boulevard interchange was analyzed and the ramp junctions were analyzed for both without and with Dominguez Road extension scenarios.

As shown in Table 6-11, all freeway mainline segments are projected to operate at LOS D or better in 2025 with the proposed project with the future eight-lane freeway. Also, as shown in Table 6-12, all Sierra College Boulevard ramp junctions are projected to operate at LOS D or better in the year 2025 with the future eight-lane freeway and the proposed development project. Therefore, the project's cumulative impacts on the freeway mainline and ramp junctions would be considered **less than significant**.

Table 6-11 Year 2025 Plus Project I-80 Freeway Mainline LOS - With Future Eight-Lane Mainline						
Freeway Segment	AM Peak Hour			PM Peak Hour		
	Volume	Density, pc/mi/ln	LOS	Volume	Density, pc/mi/ln	LOS
Westbound I-80, west of interchange	5,679	23.4	C	4,937	20.2	C
Westbound I-80, east of interchange	5,988	24.9	C	4,766	19.5	C
Eastbound I-80, east of interchange	4,025	16.5	B	6,206	26.1	D
Eastbound I-80, west of interchange	4,242	17.3	B	6,050	25.3	C
Note: pc/mi/ln = passenger cars per mile per lane						
Source: Traffic Operations Analysis, I-80/Sierra College Boulevard Interchange, Table 13. OMNI-MEANS, January 8, 2003.						

**Table 6-12
Year 2025 Plus Project I-80/Sierra College Boulevard Ramp Junction LOS -
With Future Eight-Lane Mainline**

Freeway Segment	AM Peak Hour			PM Peak Hour		
	Volume	Density, pc/mi/ln	LOS	Volume	Density, pc/mi/ln	LOS
Westbound Direct Off-Ramp	914	26.0	C	729	19.7	B
Westbound Loop On-Ramp	83	20.4	C	315	17.5	B
Westbound Direct On-Ramp	522	21.5	C	585	19.3	B
Eastbound Direct Off-Ramp	826	< 5.0	A	973	< 5.0	A
Eastbound Loop On-Ramp	71	14.5	B	190	20.6	C
Eastbound Direct On-Ramp	538	16.6	B	939	22.5	C

Source: Traffic Operations Analysis, I-80/Sierra College Boulevard Interchange, Table 14. OMNI-MEANS, January 8, 2003.

Mitigation Measure 6-6: Freeway Mainline.

No mitigation is necessary.

Level of Significance after Mitigation

The project’s cumulative impacts on the freeway mainline and ramp junctions would be considered **less than significant**.

AIR QUALITY

CUMULATIVE IMPACT 6-7 Cumulative Operational (Regional) Criteria Air Pollutant and Precursor Emissions. *The project would contribute to cumulative regional air quality emissions of pollutants that result in exceedance of air quality standards. This is considered a potentially significant impact.*

All new development within the Sacramento Valley Air Basin (SVAB) that results in an increase in air pollutant emissions above those assumed in regional air plans contributes to cumulative air quality impacts. The increase is considered significant if the project requires a change in the existing land use designation (e.g., plan amendment, rezone) and associated emissions (i.e., ROG and NO_x) are measurably greater than buildout of the site under the existing approved land use designations.

As stated in Section 3.0, the proponent would apply for a general plan amendment and rezoning affecting approximately 75 percent of the site’s total land area. The proposed general plan amendment would allow a greater number of single-family, detached dwelling units to be constructed on-site and for home sites to replace a small area designated for Retail Commercial. The trip generation characteristics of the proposed homes are similar to that which would be expected for dwelling units at the existing General Plan/zoning densities. In addition, the project proposes to amend the General Plan to allow development of an area onsite designated for Recreation/Conservation that would have been undeveloped under the General Plan. With similar estimated trip generation characteristics (see the Alternatives section of this EIR for more information), the project’s operational air pollutant emissions would be similar to what would have been anticipated on-site under the existing General Plan.

PCAPCD has established a cumulative significance threshold of 10 lb/day for operational emissions of ROG and NO_x during the summer months. Project implementation would result in an increase in vehicle miles traveled and area sources and, consequently, result in greater ROG and NO_x emissions. Long-term operational emissions of ROG and NO_x would exceed PCAPCD’s cumulative significance threshold of 10 lb/day (please refer to the Air

Quality section of this EIR). The project would be expected to exceed this cumulative threshold (see Tables 4.3-4 and 4.3-5 in the Air Quality section of this EIR) and therefore the impact is **potentially significant**.

Mitigation Measure 6-7: Cumulative Operational (Regional) Criteria Air Pollutant and Precursor Emissions

In accordance with the PCAPCD recommendations, the applicant shall implement the following mitigation measures during construction and operation of the proposed project (Backus, pers. comm., 2006b).

- ▶ Implement Mitigation Measure 4.3-1, identified in the Air Quality section of this EIR.
- ▶ The City, after consultation with the applicant, shall require that all feasible emission control measures be incorporated into project design and operation. Such measures may include, but are not limited to, the following items:
 - Provide access to public transit within ¼ mile of the project site, and transit enhancing infrastructure that includes transit shelters, benches, street lighting, route signs and displays, and/or bus turnouts/bulbs.
 - Provide pedestrian and bicycle enhancing infrastructure that includes wide sidewalks (i.e., at least five feet wide) and bikeways/paths connecting to a bikeway system, minimize pedestrian barriers (e.g., sound walls), and incorporate traffic-calming measures such as traffic circles, crosswalks, and bulb-outs at crosswalks.
 - Use solar, low-emissions, or central or tankless water heaters, increase wall and attic insulation beyond the currently applicable Title 24 requirements, and orient buildings to take advantage of passive solar heating and natural cooling, energy efficient windows (double pane and/or Low-E), and tree shading above that required by code, install photovoltaic cells, programmable thermostats for all heating and cooling systems, awnings or other shading mechanisms for windows and walkways, and utilize day lighting systems such as skylights, light shelves, interior transom windows.
 - The project shall include clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems) and provide a minimum of 10% on-site renewable energy.
- ▶ The project shall implement an off-site mitigation program, coordinated through the PCAPCD, to offset the project's long-term ozone precursor emissions. The project's off-site mitigation program must be approved by PCAPCD. The project's off-site mitigation program provides monetary incentives to sources of air pollutant emissions within the SVAB that are not required by law to reduce their emissions. Therefore, the emission reductions are real, quantifiable and implement provisions of the SIP. The off-site mitigation program reduces emissions within the SVAB that would not otherwise be eliminated.
- ▶ In lieu of the applicant implementing their own off-site mitigation program, the applicant can choose to participate in the PCAPCD Off-site Mitigation Program by paying an equivalent amount of money into the program, which would then be used offset emissions as described above. The actual amount of emission reductions needed through the Off-site Mitigation Program would be calculated when the project's average daily emissions have been determined.

Level of Significance after Mitigation

Compliance with the above PCAPCD-required control measures and incorporation of mitigation specified in the Air Quality section of this EIR would reduce this impact to a less-than-cumulatively considerable and **less-than-significant** level.

IMPACT 6-8 **Cumulative Toxic Air Contaminant Emissions.** *The project would be exposed to toxic air contaminant emissions. However, the project would not generate toxic air contaminants and would not create any airborne substantial pollutant concentrations that could combine with pollutant concentrations from cumulative development in the region. The impact is **less than significant**.*

The cumulative developments in the region would individually contribute to localized cumulative toxic air contaminant emission concentrations. The proposed project involves residential uses, which are not known to generate toxic air contaminants or create any airborne substantial pollutant concentrations. Therefore, the project's contribution to any source of substantial pollutant concentrations would be less than cumulatively considerable. Exposure to toxic air contaminants and substantial pollutant concentrations is not the type of adverse environmental impact that is amplified through the cumulative scenario. The impact is **less than significant**.

Mitigation Measure 6-8: Cumulative Toxic Air Contaminant Emissions.

No mitigation is necessary.

NOISE

Noise impacts are normally localized. Distance from noise sources attenuates noise. The cumulative context for noise considered here includes areas up to roughly ½ mile from the project site. The operational noise context is roadways affected by project traffic.

CUMULATIVE IMPACT 6-9 **Short-Term Construction-Generated Noise Levels.** *For the proposed project, adherence to proposed noise mitigation would be sufficient to avoid significant project-specific construction noise impacts. Because the proposed project would not result in significant construction noise impacts after mitigation and its noise generation would be confined to the site and immediate vicinity, it would not contribute to any such significant cumulative noise impacts. The impact is **less than significant**.*

For the proposed project, adherence to proposed noise mitigation would be sufficient to avoid significant project-specific construction noise impacts. The construction noise sources associated with reasonably foreseeable, future projects could also be considered less than significant for noise impacts, if limited to the daytime hours. Because daytime construction is required under the City's construction noise guidelines, it can be reasonably assumed that related projects in the City would include such restrictions. Cumulative noise impacts associated with construction noise sources would be anticipated to be less than significant. Additionally, because the proposed project would not result in significant construction noise impacts after mitigation and its noise generation would be confined to the site and immediate vicinity, it would not contribute to any such significant cumulative noise impacts. Further, construction noise is localized. Thus, if construction activities occur simultaneously, they would likely not result in cumulative impacts unless sites are being developed in close proximity to one another and expose sensitive receptors to significant noise levels at the same time. Construction activities at the Rocklin Crossings commercial project could contribute cumulatively to construction noise impacts if this adjacent project is constructed at the same time as the proposed project. However, the Rocklin Crossings EIR identifies required installation of a sound wall between the Rocklin Crossings project site and Rocklin 60 project. The installation of this wall would be expected to substantially diminish the Rocklin Crossings project's contribution to cumulative construction noise impacts for any existing residents in the area. Existing residents to the southwest of the Rocklin 60 and Rocklin Crossings project sites are of sufficient distance that construction noise impacts from this project would be negligible. The impact is **less than significant**.

Mitigation Measure 6-9: Short-Term Construction-Generated Noise Levels.

No mitigation is necessary.

CUMULATIVE IMPACT 6-10 **Long-Term Operational Stationary- and Area-Source Noise Levels.** *Because the proposed project would not result in significant stationary- or area-source noise impacts after mitigation, it would not contribute to any such significant cumulative noise impacts. The impact is less than significant.*

Stationary- and area-source noise associated with other related projects could potentially result in exceedence of the applicable noise regulations at proposed residences; however, because the proposed project would not result in significant stationary- or area-source noise impacts after mitigation, it would not contribute to any such significant cumulative noise impacts. The impact is **less than significant**.

Mitigation Measure 6-10: Long-Term Operational Stationary- and Area-Source Noise Levels.

No mitigation is necessary.

CUMULATIVE IMPACT 6-11 **Long-Term Operational Cumulative Traffic Noise Levels.** *Transportation source noise that extends beyond a project site along existing and proposed offsite roadways would not exceed City standards. Therefore, this impact would be considered less than significant.*

As described in Section 4.4.2, Noise, implementation of the proposed project would not cause potentially significant long-term traffic-generated noise impacts under baseline plus project conditions (year 2010), whereby the extension of the 60 dBA roadway noise contour would not expose a substantial number of people to a perceptible, permanent increase in noise levels.

Roadway noise levels were also modeled for cumulative plus project conditions (year 2025) with and without the inclusion of the Dominguez Road extension. As shown in Tables 6-13 and -6-14 below, the project's incremental increase to the cumulative increase in roadway noise levels is less than 1 dBA on all roadway segments (in all but one case the increase attributable to the project is closer to 0). The project would contribute to a slight increase in noise levels for roadways that without the project would exceed 60 and, in comes cases, 70 dBA. Depending on the land uses along such roadways and the distances and intervening structures and surfaces, this could be a potentially significant impact of the cumulative no project scenario. The project's contribution would be greatest along the segment of Pacific Street between Dominguez and Rocklin Road under the Dominguez Road Extension scenario. As measured at 50 feet from the centerline, project traffic would increase noise levels by less than 1 dBA. This is not a perceptible increase (i.e., 3 dBA or greater) in traffic noise on roadway segments of study.

Adding the project to the cumulative traffic noise levels anticipated for 2025 would extend the 60 dBA noise contour a maximum distance of 4 feet from any roadway (this would occur along Sierra College Boulevard between I-80 and Dominguez Road) (see Tables 6-15 and 6-16 below). Although the land along this roadways segment is mostly undeveloped, it is unlikely that this movement in the 60 dBA noise contour would expose any new sensitive receptor to unacceptable noise levels, compared to the cumulative no project scenario.

In summary, the project would result in a slight increase in traffic along area roadways, and an associated slight increase in noise levels under cumulative conditions. However, the project's incremental contribution to cumulative noise levels would be undetectable by existing and future sensitive receptors (less than 1 dBA on all roadway segments) and offsite receptors would experience approximately the same noise levels as without the project. For these reasons, the project would not result in a cumulatively considerable increase in traffic noise levels, and this cumulative impact is considered **less than significant**.

Mitigation Measure 6-11: Long-Term Operational Cumulative Traffic Noise Levels.

No mitigation is necessary.

**Table 6-13
Summary of Modeled Cumulative Traffic Noise Levels With & Without Project
(with Dominguez Road Extension)**

Roadway	Segment	dBA L _{dn} @ 50 Feet (dBA) ¹		
		Cumulative	Cumulative + Project	Change
Taylor Road	King Road & Horseshoe Bar Road	70.68	70.69	0.01
Taylor Road	Horseshoe Bar Road & Sierra College Boulevard	69.49	69.50	0.01
Pacific Street	Sierra College Boulevard & Dominguez Road	68.81	68.82	0.01
Pacific Street	Dominguez Road & Rocklin Road	70.07	70.70	0.63
Rocklin Road	Pacific St & Granite Dr	72.30	72.30	0.00
Rocklin Road	I-80 & Sierra College Boulevard	68.22	68.23	0.01
Rocklin Road	Sierra College Boulevard & Barton Road	68.96	68.96	0.00
Barton Road	Rocklin Road & Brace Road	65.96	65.97	0.01
Horseshoe Bar Road	I-80 & Brace Road	67.57	67.57	0.00
Brace Road	I-80 & Barton Road	67.50	67.52	0.02
Brace Road	I-80 & Sierra College Boulevard	67.21	67.21	0.00
Sierra College Boulevard	English Colony Way & King Road	71.52	71.53	0.01
Sierra College Boulevard	King Road & Taylor Road	71.32	71.35	0.03
Sierra College Boulevard	Taylor Road & I-80	71.16	71.20	0.04
Sierra College Boulevard	I-80 & Dominguez Road	71.00	71.07	0.07
Sierra College Boulevard	Dominguez Road & Rocklin Road	71.47	71.49	0.02
Granite Drive	Dominguez Road & Sierra College Boulevard	66.17	66.17	0.00
Granite Drive	Dominguez Road & Rocklin Road	67.78	67.78	0.00
Dominguez Road	Taylor Road & Granite Dr	66.27	66.27	0.00
King Road	Sierra College Boulevard & Taylor Road	66.06	66.06	0.00

Note: Cumulative + Project traffic volumes for Interstate 80 were not included in the traffic study.

¹ Distances to traffic noise contours are measured in feet from the centerlines of the roadways. Traffic noise levels are predicted at a standard distance from the roadway centerlines and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

Source: Data modeled by EDAW 2007 using FHWA-RD-77-108 with inputs from LSA 2007.

**Table 6-14
Summary of Modeled Cumulative Traffic Noise Levels With & Without Project
(without Dominguez Road Extension)**

Roadway	Segment	dBA L _{dn} @ 50 Feet (dBA) ¹		
		Cumulative	Cumulative + Project	Change
Taylor Road	King Road & Horseshoe Bar Road	70.69	70.70	0.01
Taylor Road	Horseshoe Bar Road & Sierra College Boulevard	69.47	69.49	0.02
Pacific Street	Sierra College Boulevard & Dominguez Road	69.12	69.13	0.01
Pacific Street	Dominguez Road & Rocklin Road	70.01	70.02	0.01
Rocklin Road	Pacific St & Granite Dr	72.30	72.30	0.00
Rocklin Road	I-80 & Sierra College Boulevard	69.06	69.07	0.01
Rocklin Road	Sierra College Boulevard & Barton Road	68.90	68.92	0.02
Barton Road	Rocklin Road & Brace Road	66.01	66.02	0.01
Horseshoe Bar Road	I-80 & Brace Road	67.61	67.61	0.00
Brace Road	I-80 & Barton Road	67.52	67.53	0.01
Brace Road	I-80 & Sierra College Boulevard	67.23	67.23	0.00
Sierra College Boulevard	English Colony Way & King Road	71.52	71.52	0.00
Sierra College Boulevard	King Road & Taylor Road	71.31	71.34	0.03
Sierra College Boulevard	Taylor Road & I-80	71.27	71.32	0.05
Sierra College Boulevard	I-80 & Dominguez Road	71.14	71.21	0.07
Sierra College Boulevard	Dominguez Road & Rocklin Road	71.30	71.31	0.01
Granite Drive	Dominguez Road & Sierra College Boulevard	67.08	67.08	0.00
Granite Drive	Dominguez Road & Rocklin Road	67.99	68.00	0.01
Dominguez Road	Taylor Road & Granite Dr	64.62	64.62	0.00
King Road	Sierra College Boulevard & Taylor Road	66.07	66.07	0.00

Note: Cumulative + Project traffic volumes for Interstate 80 were not included in the traffic study.

¹ Distances to traffic noise contours are measured in feet from the centerlines of the roadways. Traffic noise levels are predicted at a standard distance from the roadway centerlines and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

Source: Data modeled by EDAW 2007 using FHWA-RD-77-108 with inputs from LSA 2007.

**Table 6-15
Summary of Modeled Distances to Noise Contours for Cumulative Conditions With & Without Project
(with Dominguez Road Extension)**

Roadway	Segment	Distance to 60 dBA CNEL Noise Contour (feet) ¹		
		Cumulative	Cumulative + Project	Difference
Taylor Road	King Road & Horseshoe Bar Road	286.8	287.3	0.5
Taylor Road	Horseshoe Bar Road & Sierra College Boulevard	238.9	239.4	0.5
Pacific Street	Sierra College Boulevard & Dominguez Road	254	254.3	0.3
Pacific Street	Dominguez Road & Rocklin Road	307.9	308.1	0.2
Rocklin Road	Pacific St & Granite Drive	433.2	433.4	0.2
Rocklin Road	I-80 & Sierra College Boulevard	232.2	232.6	0.4
Rocklin Road	Sierra College Boulevard & Barton Road	240.9	241.4	0.5
Barton Road	Rocklin Road & Brace Road	139.1	139.9	0.8
Horseshoe Bar Road	I-80 & Brace Road	178.1	178.1	0.0
Brace Road	I-80 & Barton Road	176.2	176.5	0.3
Brace Road	I-80 & Sierra College Boulevard	168.5	168.5	0.0
Sierra College Boulevard	English Colony Way & King Road	326.0	326.5	0.5
Sierra College Boulevard	King Road & Taylor Road	316.5	317.9	1.4
Sierra College Boulevard	Taylor Road & I-80	411.9	414.6	2.7
Sierra College Boulevard	I-80 & Dominguez Road	402.1	406.4	4.3
Sierra College Boulevard	Dominguez Road & Rocklin Road	432.4	433.6	1.2
Granite Drive	Dominguez Road & Sierra College Boulevard	169.8	170.0	0.2
Granite Drive	Dominguez Road & Rocklin Road	217.0	217.2	0.2
Dominguez Road	Taylor Road & Granite Drive	145.9	145.9	0.0
King Road	Sierra College Boulevard & Taylor Road	141.1	141.1	0.0

¹ Distances to traffic noise contours are measured in feet from the centerlines of the roadways. Traffic noise levels are predicted at a standard distance from the roadway centerlines and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

Source: EDAW 2007 using FHWA-RD-77-108 with inputs from LSA 2007.

**Table 6-16
Summary of Modeled Distances to Noise Contours for Cumulative Conditions With & Without Project
(without Dominguez Road Extension)**

Roadway	Segment	Distance to 60 dBA CNEL Noise Contour (feet) ¹		
		Cumulative	Cumulative + Project	Difference
Taylor Road	King Road & Horseshoe Bar Road	287.3	287.7	0.4
Taylor Road	Horseshoe Bar Road & Sierra College Boulevard	238.3	238.8	0.5
Pacific Street	Sierra College Boulevard & Dominguez Road	266.4	266.7	0.3
Pacific Street	Dominguez Road & Rocklin Road	305.4	305.5	0.1
Rocklin Road	Pacific St & Granite Drive	433.2	433.4	0.2
Rocklin Road	I-80 & Sierra College Boulevard	264.0	264.4	0.4
Rocklin Road	Sierra College Boulevard & Barton Road	238.7	239.2	0.5
Barton Road	Rocklin Road & Brace Road	140.2	140.4	0.2
Horseshoe Bar Road	I-80 & Brace Road	179.0	179.0	0.0
Brace Road	I-80 & Barton Road	176.6	177.0	0.4
Brace Road	I-80 & Sierra College Boulevard	169.0	169.0	0.0
Sierra College Boulevard	English Colony Way & King Road	325.9	326.4	0.5
Sierra College Boulevard	King Road & Taylor Road	315.7	317.2	1.5
Sierra College Boulevard	Taylor Road & I-80	419.4	422.1	2.7
Sierra College Boulevard	I-80 & Dominguez Road	411.1	415.4	4.3
Sierra College Boulevard	Dominguez Road & Rocklin Road	420.7	422.0	1.3
Granite Drive	Dominguez Road & Sierra College Boulevard	195.1	195.2	0.1
Granite Drive	Dominguez Road & Rocklin Road	224.3	224.6	0.3
Dominguez Road	Taylor Road & Granite Drive	113.2	113.2	0.0
King Road	Sierra College Boulevard & Taylor Road	141.4	141.4	0.0

¹ Distances to traffic noise contours are measured in feet from the centerlines of the roadways. Traffic noise levels are predicted at a standard distance from the roadway centerlines and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

Source: EDAW 2007 using FHWA-RD-77-108 with inputs from LSA 2007.

POPULATION AND HOUSING

CUMULATIVE IMPACT 6-12 **Cumulative Population and Housing Impacts.** *Population and housing growth throughout the region could lead to significant impacts related to increased housing demand, replacement of housing, and growth inducement. Implementation of the proposed project would increase population in Rocklin from construction of new homes. The addition of 490 residents does not in and of itself constitute any adverse physical environmental impact. The additional population accommodated by the project cannot, then, be characterized as unplanned or unanticipated. The project does not generate a substantial demand for new housing, but rather provides housing. The project does not displace substantial numbers of existing people or housing since no substantial housing or population exists on-site. The project's impact on population, both direct and through any inducement, is considered **less than significant**.*

Population and housing growth throughout the region could lead to significant impacts related to increased housing demand, replacement of housing, and growth inducement. Implementation of the proposed project would increase population in Rocklin from construction of new homes. The project would develop 179 new single-family housing units and add approximately 490 new residents. The addition of 490 residents does not in and of itself constitute any adverse physical environmental impact. It would be speculative to conclude that the addition of 490 residents would entice any employer to become established in Rocklin. The site is designated as LDR (Low Density Residential), MDR (Medium Density Residential), RC (Retail Commercial), and R-C (Recreation-Conservation) under Rocklin's General Plan. Residential uses are proposed for areas of the site designated under the existing General Plan for residential use. The additional population accommodated by the project cannot, then, be characterized as unplanned or unanticipated. The project is located at the edge of the City of Rocklin. Infrastructure extended to the project site, therefore, would not induce construction in areas surrounding the project that were not planned for urban development. Roads are stubbed to the north to connect to land designated by the City for residential development. Sites to the north are bound by Interstate 80 and the Town of Loomis. Roads stubbed to the north would be local serving and would not indirectly induce any substantial development (as discussed in the Thresholds of Significance). There are established rural residential land uses north and northeast of the project site that would not link with any infrastructure on-site. The site includes stubbed out roadways to connect with areas north of the site that were also planned for urban development as a part of the City's General Plan. The project's impact on population, both direct and through any inducement, is considered less than significant.

The project does not generate a substantial demand for new housing, but rather provides housing. The project does not displace substantial numbers of existing people or housing since no substantial housing or population exists on-site. The impact is less than cumulatively considerable and **less than significant**.

Mitigation Measure 6-12: Cumulative Population and Housing Impacts.

No mitigation is necessary.

UTILITIES AND PUBLIC SERVICES

CUMULATIVE IMPACT 6-13 **Cumulative Water Supply Impacts.** *Ample surplus water is available over the foreseeable future. Further, no additional water treatment or substantial conveyance facilities would be needed to serve the project. The project would result in a **less-than-significant** cumulative water supply impact.*

Water service would be provided to the site by the Placer County Water Agency (PCWA). The City of Rocklin is located entirely within PCWA Zone 1 which includes Rocklin and the rest of the Loomis Basin, the City of Lincoln, an industrial corridor along Highway 65, and residential areas south of Baseline Road and west of the City of Roseville. The total water available to Zone 1 is 255,400 acre-feet per year (afy) of permanent water supply and 5,000 afy of temporary water. Out of that permanent supply, PCWA has contracted to deliver up to 25,000 afy to San Juan Water District for use within the Placer County portion of its service area and up to 30,000 afy to the

City of Roseville. Deliveries to the San Juan Water District and the City of Roseville would only occur during surplus water years.

In 2004, PCWA used 112,768 af to meet the needs of its Zone 1 customers. In addition to this amount, to date PCWA has approved applications for water service totaling an additional 5,753 afy, resulting in a total current committed demand of 118,521 afy. Therefore, the PCWA has a remaining 136,879 afy of surface water available to meet future demands (see Table 4.6-1 in Section 4.6, "Utilities and Public Services"). Further, additional water may become available from the Sacramento River after development of the proposed Sacramento River diversion facilities which would provide an additional 35,000 afy and 65 million gallons per day (mgd) treatment capacity. This project is estimated to be complete around 2010. Ample surplus water is available over the foreseeable future. Further, no additional water treatment or substantial conveyance facilities would be needed to serve the project.

The cumulative impacts associated with diverting American River water from the permanent American River Pump Station project were addressed in the 1999 Final EIR for the Water Forum Agreement (WFA) (EDAW/SWRI 1999). The WFA is an agreement between multiple stakeholders in the Sacramento metropolitan area and lower foothill regions, including numerous water providers such as PCWA. After seven years of meetings, sub-committee negotiations, and small group operations, the Water Forum members established a working agreement that provides water quality and reliability for all participants. The WFA's co-equal goals were to (1) provide a reliable and safe supply for the region's economic health and planned development through to the year 2030, and (2) preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River.

From these co-equal goals, the Water Forum signatories determined seven major elements that must be implemented during the next 30 years if the agreement is to be successful. As a signatory of the WFA, PCWA is actively participating in all seven elements. The elements specific to reliability of water supplies include:

- ▶ Increased Surface Water Diversions;
- ▶ Actions to Meet Customers' Needs While Reducing Diversion Impacts in Drier Years, Water Conservation;
- ▶ Groundwater Management; and
- ▶ The Water Forum Successor Effort.

Because the final EIR for the Water Forum was not challenged in court, the certified document constitutes a legally satisfactory analysis of all the issues addressed therein, including cumulative water supply impacts (see Public Resources Code Section 21167.2). The findings of the FEIR and the accompanying Water Forum Action Plan outlined a program whereby water delivery could be supplied to Water Forum Agreement stakeholders, including PCWA, through 2030, provided that the permanent pumping diversion facilities on the Sacramento River and at Auburn are constructed. The document identified and thoroughly evaluated potential impacts on water supplies resulting from implementation of the Water Forum Agreement, including impacts on both the federal Central Valley Project (CVP) run by the United States Bureau of Reclamation and the State Water Project (SWP) operated by the California Department of Water Resources.

Notably, the water demand created by the project, which is estimated to be approximately 135 acre feet per year (AFY), would represent a tiny fraction of 1% of the total Water Forum Agreement delivery agreements, and thus would cause only a virtually negligible fraction of the cumulative impacts assessed in the Water Forum Agreement EIR. (For the sake of context, the American River Pump Station itself – which is only one of many large diversions contemplated by the WFA – involves 35,500 AFY.)

As described in that EIR, implementation of the Water Forum Agreement would result in several significant environmental impacts, most of which would be reduced to a less-than-significant level through implementation of mitigation. These include impacts on groundwater, water quality, fisheries resources and aquatic habitat, flood control, hydropower supply, vegetation and wildlife, recreation, land use and growth inducement, aesthetics, cultural resources, and soils and geology.

Impacts that would remain significant or potentially significant after implementation of mitigation (i.e., significant and unavoidable) include:

- ▶ impacts on water quality in the Sacramento River and the Sacramento–San Joaquin Delta;
- ▶ impacts on Folsom Reservoir’s warmwater fisheries;
- ▶ impacts on fall-run Chinook salmon, and flow and temperature impacts on splittail (February–May);
- ▶ a decrease in deliveries to SWP customers;
- ▶ a decrease in deliveries to CVP customers;
- ▶ reduced rafting and boating opportunities on the lower American River;
- ▶ reduced Folsom Reservoir boating opportunities;
- ▶ reduced availability of Folsom Reservoir swimming beaches;
- ▶ land use and growth-inducing impacts in the water service study area; and
- ▶ effects of varying water levels on cultural resources in Folsom Reservoir.

The mitigation measures applied to these resource areas would partially reduce the impacts, but would not reduce them to a less-than-significant level. The Water Forum Agreement EIR determined that even after mitigation is applied to these resource areas, the level of significance after mitigation would remain significant and unavoidable.

Even so, , the contributions of the Rocklin 60 project to these significant cumulative impacts are less than cumulatively considerable, as these contributory incremental effects are, for all practical purposes, completely negligible and undetectable in light of the scale of both the Water Forum and the water bodies and storage and conveyance facilities at issue. The project would result in a *less-than-significant* cumulative water supply impact.

Climate Change and Potential Impacts on California Water Resources

From a Statewide perspective, global climate change could affect California’s environmental resources through potential, though uncertain, changes related to future air temperatures and precipitation and their resulting impacts on water temperatures, reservoir operations, stream runoff, and sea levels (Kiparsky and Gleick 2003). These changes in hydrological systems could threaten California’s economy, public health, and environment (California Energy Commission 2003). The types of potential climate effects that could occur on California’s water resources include:

- ▶ **Water Supply.** Several recent studies have shown that existing water supply systems are sensitive to climate change (Wood 1997). Potential impacts of climate change on water supply and availability could directly and indirectly affect a wide range of institutional, economic, and societal factors (Gleick 1997). Much uncertainty remains, however, with respect to the overall impact of global climate change on future water supplies. For example, models that predict drier conditions (i.e., parallel climate model [PCM]) suggest decreased reservoir inflows and storage and decreased river flows, relative to current conditions. By comparison, models that predict wetter conditions (i.e., HadCM2) project increased reservoir inflows and storage, and increased river flows (Brekke 2004). Both projections are equally probable based on which model is chosen for the analyses (Ibid.). Much uncertainty also exists with respect to how climate change will affect future demand of water supply (DWR 2006). Still, changes in water supply are expected to occur and many regional studies have shown that large changes in the reliability of water yields from reservoirs could result from only small changes in inflows (Kiparsky and Gleick 2003; see also Cayan et al. 2006a).
- ▶ **Surface Water Quality.** Global climate change could affect surface water quality as well. Water quality is affected by several variables, including the physical characteristics of the watershed, water temperature, and runoff rate and timing. A combination of a reduction in precipitation, the shift in volume and timing of runoff flows, and the increased temperature in lakes and rivers could affect a number of natural processes that eliminate pollutants in water bodies. For example, the overall decrease in stream flows could potentially concentrate pollutants and prevent the flushing of contaminants from point sources. The increased storm

flows could tax urban water systems and cause greater flushing of pollutants to the Sacramento-San Joaquin Delta and coastal regions (Kiparsky and Gleick 2003). Still, considerable work remains to determine the potential effect of global climate change to water quality.

- ▶ **Groundwater.** Little work has been done on the effects of climate change on specific groundwater basins, groundwater quality or groundwater recharge characteristics (Kiparsky and Gleick 2003). Changes in rainfall and changes in the timing of the groundwater recharge season would result in changes in recharge. Warmer temperatures could increase the period where water on the ground by reducing soil freeze. Conversely, warmer temperatures could lead to higher evaporation or shorter rainfall seasons, which could mean that soil deficits would persist for longer time periods, shortening recharge seasons. Warmer, wetter winters would increase the amount of runoff available for groundwater recharge. This additional winter runoff, however, would be occurring at a time when some basins, particularly in Northern California, are being recharged at their maximum capacity. Reductions in spring runoff and higher evapotranspiration, on the other hand, could reduce the amount of water available for recharge. However, the extent to which climate will change and the impact of that change on groundwater are both unknown. A reduced snowpack, coupled with increased rainfall, could require a change in the operating procedures for California's existing dams and conveyance facilities (Kiparsky and Gleick 2003).
- ▶ **Fisheries and Aquatic Resources.** In California, the timing and amounts of water released from reservoirs and diverted from streams are constrained by their effects on various native fish, especially those that are listed under the federal and state endangered species acts as threatened or endangered. Several potential hydrological changes associated with global climate change could influence the ecology of aquatic life in California and have several negative effects on cold-water fish (Department of Water Resources [hereafter "DWR"] 2006). For example, if climate change raises air temperature by just a few degrees Celsius, this change could be enough to raise the water temperatures above the tolerance of salmon and trout in many streams, favoring instead non-native fishes such as sunfish and carp (DWR 2006). Unsuitable summer temperatures would be particularly problematic for many of the threatened and endangered fish that spend summers in cold-water streams, either as adults, juveniles, or both (DWR 2006). In short, climate change could significantly affect threatened and endangered fish in California. It could also cause non-threatened and non-endangered fish to reach the point where they become designated as such (DWR 2006).
- ▶ **Sea Levels.** Global climate change could cause thermal expansion of ocean waters and melting of ice from land surfaces, which in turn could cause sea levels to rise. Among the risks of sea level rise would be threats to levee integrity and tidal marshes and increased salinity in the Delta region (Kiparsky and Gleick 2003). The increased intrusion of salinity from the ocean could degrade freshwater supplies pumped from the Delta, which could require increased freshwater releases from upstream reservoirs to maintain compliance with water quality standards (DWR 2006).
- ▶ **Flood Control.** It is difficult to assess implications of climate change for flood frequency, in large part because of the absence of detailed regional precipitation information from climate models and because human settlement patterns and water-management choices can substantially influence overall flood risk (Kiparsky and Gleick 2003). Still, increased amounts of winter runoff could be accompanied by increases in flood event severity and warrant additional dedication of wet season storage space for flood control as opposed to supply conservation. This need to manage water storage facilities to handle increased runoff could in turn lead to more frequent water shortages during high water demand periods (Brekke 2004). It is recognized that these impacts would result in increased challenges for reservoir management and balancing the competing concerns of flood protection and water supply (DWR 2006).
- ▶ **Sudden Climate Change.** Most global climate models project that anthropogenic climate change will be a continuous and fairly gradual process through the end of this century (DWR 2006). California is expected to be able to adapt to the water supply challenges posed by climate change, even at some of the warmer and dryer projections for change. Sudden and unexpected changes in climate, however, could leave water

managers unprepared and could, in extreme situations, have significant implications for California and its water supplies. For example, there is speculation that some of the recent droughts that occurred in California and the western United States could have been due, at least in part, to oscillating oceanic conditions resulting from climatic changes. The exact causes of these events are, however, unknown, and evidence suggests such events have occurred during at least the past 2000 years. (DWR 2006).

Because considerable uncertainty remains with respect to the overall impact of global climate change on future water supply in California, it is unknown to what degree global climate change will impact future Placer County water supply and availability. However, based on consideration of the recent regional and local climate change studies, and based on an assessment of water supply for the project, it is reasonably expected that the impacts of global climate change on water supply for urban projects in Placer County would be **less than significant**.

Mitigation Measure 6-13: Cumulative Water Supply Impacts.

No mitigation is necessary.

CUMULATIVE IMPACT 6-14 **Cumulative Wastewater Impacts.** *Dry Creek Wastewater Treatment Plant provides wastewater treatment facilities for the South Placer Municipal Utility District (SPMUD). A project-specific wastewater conveyance system would be constructed, as needed, and would be adequately sized to accommodate only project-related wastewater flows. With operation of both wastewater treatment plants, ample wastewater treatment capacity is available over the foreseeable future. Further, no additional wastewater treatment or conveyance facilities would be needed to serve the project. The project would result in a **less-than-significant** cumulative wastewater treatment and conveyance impact.*

Regarding wastewater treatment, please see Section 4.6, “Utilities and Public Services.” As described, cumulative development in the Dry Creek Wastewater Treatment Plant provides wastewater treatment facilities for the South Placer Municipal Utility District (SPMUD). This plant serves the Dry Creek Basin, consisting of the cities of Roseville, Rocklin, and Loomis, as well as the surrounding unincorporated areas. The Dry Creek Wastewater Treatment Plant’s current design capacity is 18 mgd. The plant’s flows average 12 mgd average dry weather flow (ADWF) and 30 mgd average wet weather flows (AWWF). An additional regional wastewater treatment facility, the Pleasant Grove Wastewater Treatment Plant, was recently constructed with an initial design capacity of 12 mgd ADWF and 30 mgd AWWF.

A project-specific wastewater conveyance system would be constructed, as needed, and would be adequately sized to accommodate only project-related wastewater flows. The project would connect to and be served by trunk facilities planned to be built under the project known commonly as Croftwood located southeast of the project site. This development is currently under construction and these conveyance facilities are expected to be available to serve the proposed project when needed.

With operation of both wastewater treatment plants, ample wastewater treatment capacity is available over the foreseeable future. Further, no additional wastewater treatment or conveyance facilities would be needed to serve the project. The project would result in a **less-than-significant** cumulative wastewater treatment and conveyance impact.

Mitigation Measure 6-14: Cumulative Wastewater Impacts.

No mitigation is necessary.

CUMULATIVE IMPACT 6-15 **Cumulative Solid Waste Impacts.** *Cumulative projects would incrementally increase the amount of solid waste generated in the City and disposed of at the Western Regional Landfill. The Western Regional Landfill has long-term available capacity and a closure date anticipated to be approximately 2036. Therefore, the Western Regional Landfill has sufficient permitted capacity to accommodate solid waste disposal needs of cumulative projects over the foreseeable future. The project would result in a **less-than-significant** cumulative solid waste impact.*

Cumulative projects would incrementally increase the amount of solid waste generated in the City and disposed of at the Western Regional Landfill. The Western Regional Landfill has long-term available capacity and is permitted to accept 1,900 tons per day (tpd) of solid waste. The landfill has a total capacity of 36 million cubic yards with a remaining capacity of 29 million cubic yards and a closure date anticipated to be approximately 2036. Therefore, the Western Regional Landfill has sufficient permitted capacity to accommodate solid waste disposal needs of cumulative projects over the foreseeable future. The project's contribution is minor and would be accommodated by existing capacity. The project would not cumulatively contribute to any need for solid waste facility expansion. The project would result in a **less-than-significant** cumulative solid waste impact.

Mitigation Measure 6-15: Cumulative Solid Waste Impacts.

No mitigation is necessary.

CUMULATIVE IMPACT 6-16 **Cumulative Electricity and Natural Gas Impacts.** *On a cumulative basis, adequate electrical and natural gas facilities and services are available to meet project demands. Further, PG&E would expand their operations on an as needed basis to meet new demands. No expansion of existing facilities would be required for the project. As a result, the project would not contribute to a significant cumulative electricity and natural gas impact. This would be a **less-than-significant** cumulative impact.*

On a cumulative basis, adequate electrical and natural gas facilities and services are available to meet project demands. Further, PG&E would expand their operations on an as needed basis to meet new demands. No expansion of existing facilities would be required for the project. As a result, the project would not contribute to a significant cumulative electricity and natural gas impact. This would be a **less-than-significant** cumulative impact.

Mitigation Measure 6-16: Cumulative Electricity and Natural Gas Impacts.

No mitigation is necessary.

CUMULATIVE IMPACT 6-17 **Cumulative Fire Protection Impacts.** *The City of Rocklin requires new developments to pay impact mitigation fees per dwelling unit (a portion goes to the Fire Department) which would be sufficient to mitigate public service impacts. For these reasons, the proposed project would not contribute to a cumulative impact to fire protection services. This would be a **less-than-significant** cumulative impact.*

As stated in Section 4.6, "Utilities and Public Services," of this EIR, no new fire facilities would be required that are not already planned for. The City of Rocklin requires new development projects to pay specific impact fees (a portion of which is directed to the Fire Department). In addition, the project would be required to annex into the City-wide Community Facility District No. 1 and pay yearly City-wide Fire Department impact fees, which are adjusted, as needed. For these reasons, the proposed project would not contribute to a cumulative impact to fire protection services. This would be a **less-than-significant** cumulative impact.

Mitigation Measure 6-17: Cumulative Fire Protection Impacts.

No mitigation is necessary.

CUMULATIVE IMPACT 6-18 **Cumulative Law Enforcement Impacts.** *As stated in Section 4.6, “Utilities and Public Services,” of this EIR, no new police facilities would be required that are not already planned for. Funding for department operations comes from the City’s general fund. New police services, including officers and equipment, are funded on an as-needed basis through approval from the City Council. For these reasons, the proposed project would not contribute to a cumulative impact related to law enforcement services or police facilities. This would be a **less-than-significant** cumulative impact.*

As stated in Section 4.6, “Utilities and Public Services,” of this EIR, no new police facilities would be required that are not already planned for. Funding for department operations comes from the City’s general fund. New police services, including officers and equipment, are funded on an as-needed basis through approval from the City Council. The City would add personnel to the police department on an as-needed basis to meet service goals, including serving the project. The project would not create the need for expansions to facilities that would create potentially significant impacts or substantially contribute to the need for such expansions. For these reasons, the proposed project would not contribute to a cumulative impact related to law enforcement services or police facilities. This would be a **less-than-significant** cumulative impact.

Mitigation Measure 6-18: Cumulative Law Enforcement Impacts.

No mitigation is necessary.

CUMULATIVE IMPACT 6-19 **Cumulative Schools Impacts.** *The project proponent would pay development impact fees sufficient to mitigate school impacts. For these reasons, the proposed project would not contribute to a cumulative impact related to school services. This would be a **less-than-significant** cumulative impact.*

The project would be subject to development impact fees. As allowed by State law, the project applicant would pay the state-mandated school impact fees to the Loomis Union School District and the Placer Union School District. This fee is typically an insufficient amount to fund 100% of new school facility construction. However, the California Legislature has declared that the school impact fee is deemed to be full and adequate mitigation under CEQA (Government Code Section 65996.) Section 65996 does not provide for remediation of existing deficiencies in school services. With payment of the school impact fees, the proposed project would not contribute to a cumulative impact related to school services. This would be a **less-than-significant** cumulative impact.

Mitigation Measure 6-19: Cumulative Schools Impacts.

No mitigation is necessary.

CUMULATIVE IMPACT 6-20 **Cumulative Parks and Recreation Facilities Impacts.** *Development of proposed project with residential uses would add to the cumulative demand for parks and recreation facilities in the City. Development projects are required to pay park and recreation fees as required by the City’s subdivision ordinance (Rocklin Municipal Code Title 16) which provides for the collection of park and recreation fees and/or parkland dedication for new residential developments at the time properties are subdivided. The fees are used to fund the acquisition and development of park and recreation facilities commensurate with the established parkland standard. Through payment of required fees, the project would not contribute to the cumulative parkland deficit and would satisfy the proposed project’s overall park needs and not contribute considerably to any park impacts. Similarly, development of the cumulative projects would not be expected to result in impacts related to parks and open space with required payment of park and recreation fees. Therefore, the project would not contribute to a cumulative impact on parks and recreation facilities. This would be a **less-than-significant** cumulative impact.*

Development of proposed project with residential uses would add to the cumulative demand for parks and recreation facilities in the City. Development projects are required to pay park and recreation fees as required by the City's subdivision ordinance (Rocklin Municipal Code Title 16) which provides for the collection of park and recreation fees and/or parkland dedication for new residential developments at the time properties are subdivided. The fees are used to fund the acquisition and development of park and recreation facilities commensurate with the established parkland standard. Through payment of required fees, the project would not contribute to the cumulative parkland deficit and would satisfy the proposed project's overall park needs and not contribute considerably to any park impacts. Similarly, development of the cumulative projects would not be expected to result in impacts related to parks and open space with required payment of park and recreation fees. Therefore, the project would not contribute to a cumulative impact on parks and recreation facilities. This would be a **less-than-significant** cumulative impact.

Mitigation Measure 6-20: Cumulative Parks and Recreation Facilities Impacts.

No mitigation is necessary.

CUMULATIVE IMPACT 6-21 **Cumulative Library Services Impacts.** *The proposed project would result in increased demands for library services. Placer County requires development projects to pay a public facilities fee that is collected at the time of building permit issuance and is transferred back to Placer County. Monies collected under this fee in Rocklin are used expressly for public facilities in Rocklin. Through payment of required fees, the project would satisfy the proposed project's overall library needs and not contribute considerably to any library impacts. Similarly, development of the cumulative projects would not be expected to result in impacts related to library services with required payment of public facilities fee. Therefore, the project would not contribute to a cumulative impact related to library services. This would be a **less-than-significant** cumulative impact.*

The proposed project would result in increased demands for library services. Placer County requires development projects to pay a public facilities fee that is collected at the time of building permit issuance and is transferred back to Placer County. Monies collected under this fee in Rocklin are used expressly for public facilities in Rocklin. Through payment of required fees, the project would satisfy the proposed project's overall library needs and not contribute considerably to any library impacts. Similarly, development of the cumulative projects would not be expected to result in impacts related to library services with required payment of public facilities fee. Therefore, the project would not contribute to a cumulative impact related to library services. This would be a **less-than-significant** cumulative impact.

Mitigation Measure 6-21: Cumulative Library Services Impacts.

No mitigation is necessary.

AESTHETICS

CUMULATIVE IMPACT 6-22 **Cumulative Aesthetics Impacts.** *Implementation of the proposed project would substantially alter the visual character of the project site through conversion of undeveloped land to developed urban uses, resulting in a **significant** aesthetic impact related to degradation of visual character.*

The Rocklin Crossings development, approved to be constructed west of the project site, would obscure views of the Rocklin 60 project site somewhat, particularly when viewed from Sierra College Boulevard, the Sierra College Boulevard/Interstate 80 interchange, the Lifehouse Church, and residences located west of Sierra College Boulevard. The development of this adjacent project would obscure the project site from certain important public viewing areas in the vicinity, thus reducing somewhat the project's potential visual impact as viewed from nearby important public viewing locations.

Implementation of the proposed project would substantially alter the visual character of the project site through conversion of undeveloped land to developed urban uses, resulting in a significant aesthetic impact related to degradation of visual character. Because of the scale and location of the proposed project, there is no feasible mitigation available to address aesthetic resource impacts associated with the conversion of undeveloped land to urban development. Placer County and other outlying areas of the Sacramento Metropolitan Area have been undergoing a visual transformation as formerly undeveloped land is converted to suburban development. This visual transformation includes areas along I-80 near the project site. There is no mechanism to allow implementation of the project while avoiding the conversion of the local viewshed from undeveloped land to urban development. Because development along the I-80 corridor has occurred on formerly undeveloped land, as would be the case under the proposed project, continued development along the I-80 corridor would be expected to result in similar aesthetic impacts. Therefore, the proposed project would considerably contribute to a significant cumulative impact on aesthetics, and this impact would be *significant and unavoidable*.

Mitigation Measure 6-22: Cumulative Aesthetics Impacts.

No feasible mitigation is available.

PUBLIC HEALTH AND HAZARDS

CUMULATIVE IMPACT 6-23 **Cumulative Public Health and Hazards Impacts.** *The proposed project would result in a potentially significant public health and hazards impact related to pesticide residuals. However, any known or previously undiscovered contaminated soil or other hazardous materials would be removed from the site in accordance with City and County standards. This would be a less-than-significant cumulative impact.*

The proposed project would result in a potentially significant public health and hazards impact related to pesticide residuals. Although no recognized environmental concerns (RECs) have been identified to date on the project site, the site has been used in the past for agricultural activities and on-site surficial soils could contain elevated concentrations of pesticide residuals. Excavation and construction activities could result in the exposure of construction workers and the general public to hazardous materials, including petroleum hydrocarbons, pesticides, herbicides, and fertilizers; contaminated debris; elevated levels of chemicals that could be hazardous; or, hazardous substances that could be inadvertently spilled or otherwise spread. However, any known or previously undiscovered contaminated soil or other hazardous materials would be removed from the site in accordance with City and County standards. The project's impact is considered **less than significant**.

Mitigation Measure 6-23: Cumulative Public Health and Hazards Impacts.

No mitigation is necessary.

GEOLOGY AND SOILS

CUMULATIVE IMPACT 6-24 **Cumulative Geology and Soils Impacts.** *Geology and soils impacts of the project would be reduced to a less-than-significant level with implementation of recommendations included in the preliminary geotechnical report and a comprehensive site-specific geotechnical report for the proposed project. The proposed project would result in a less-than-significant cumulative geology and soils impact.*

The proposed project would result in potentially significant impacts related to exposure of people and structures to seismic hazards, including ground shaking and liquefaction; subsidence or compression of unstable soils; and damage associated with expansive soils. However, these impacts would be reduced to a less-than-significant level with implementation of recommendations included in the preliminary geotechnical report and a comprehensive site-specific geotechnical report for the proposed project. Geologic and soils impacts are confined to the project

site and would not combine with any geotechnical effects associated with development in other areas. Thus, the proposed project would result in a **less-than-significant** cumulative geology and soils impact.

Mitigation Measure 6-24: Cumulative Geology and Soils Impacts.

No mitigation is necessary.

HYDROLOGY, DRAINAGE, AND WATER QUALITY

CUMULATIVE IMPACT 6-25 **Cumulative Hydrology, Drainage, and Water Quality Impacts.** *The project site would not expose future residents to hazards associated with a 100-year flood event, or result in downstream flooding, or result in long-term degradation of water quality (see Section 4.10, Hydrology, Drainage, and Water Quality). Cumulative flooding impacts could occur if cumulative projects contributed to additional runoff, resulting in increased erosion or flood hazards. However, because the proposed project's drainage system would capture peak stormwater flows on the site, no cumulative flooding impacts are anticipated. The project also includes measures to ensure against any pollutant loading in nearby water bodies. The project's impact is less than significant.*

Cumulative flooding impacts could occur if cumulative development projects, particularly along the Secret Ravine corridor, contribute substantially to additional storm water runoff, resulting in increased erosion or flood hazards. However, individual development projects would be required to control storm water discharge, consistent with the storm water management requirements of the City of Rocklin, Placer County, and other local jurisdictions. Therefore, significant flooding impacts would not be anticipated with cumulative development. The project site would not expose future residents to hazards associated with a 100-year flood event, or result in downstream flooding, or result in long-term degradation of water quality (see Section 4.10, Hydrology, Drainage, and Water Quality”). Cumulative flooding impacts could occur if cumulative projects contributed to additional runoff, resulting in increased erosion or flood hazards. However, because the proposed project’s drainage system would capture peak stormwater flows on the site, no cumulative flooding impacts are anticipated.

Cumulative development could degrade surface water quality in the region and the proposed project could contribute to this degradation. However, individual development projects would be required to manage discharge water quality consistent with National Pollutant Discharge Elimination System (NPDES) permit requirements. With the implementation of these permit requirements, significant water quality impacts would not be anticipated with cumulative development. Implementation of the proposed project could cause short-term water quality degradation associated with construction activities. Construction activities (grading, excavation, etc.) could generate sediment, erosion, and other non-point source pollutants in on-site stormwater, which could drain to off-site areas, potentially degrading local water quality. The project would implement sufficient measures to prevent the release of pollutants in stormwater off-site and would minimize to the maximum extent practicable erosion of on-site soils. In combination, cumulative water quality impacts would not be anticipated to occur because this individual development project would be required to prevent the short-term degradation of water quality resulting in maintaining long-term water quality. Thus, the proposed project would result in a **less-than-significant** cumulative water quality impact.

Mitigation Measure 6-25: Cumulative Hydrology, Drainage, and Water Quality Impacts.

No mitigation is necessary.

AGRICULTURE

CUMULATIVE IMPACT 6-26 **Cumulative Agricultural Resources Impacts.** *The project would not result in the conversion of important farmlands to urban land uses. The project would result in **no cumulative impacts** related to agriculture.*

The project would not convert important farmlands to urban uses and would not conflict with lands zoned for agricultural uses. Therefore, the project would not contribute to an overall or cumulative loss of important farmlands. Thus, the proposed project would result in a **less-than-significant** cumulative agricultural resource impact.

Mitigation Measure 6-26: Cumulative Agricultural Resources Impacts.

No mitigation is necessary.

BIOLOGICAL RESOURCES

CUMULATIVE IMPACT 6-27 **Cumulative Biological Resource Impacts.** *Similar to the proposed project, additional development in the City of Rocklin would potentially result in impacts to native oak trees and heritage trees, riparian/wetland habitat, valley elderberry longhorn beetle, special-status fish species, western pond turtle, and special-status birds. Development in the City of Rocklin in combination with the proposed project would continue to diminish the lands available for biotic resources. Undeveloped lands in the city, as well as Placer County, serve as prime habitat for a variety of wildlife and vegetation. The continued development of these lands would result to the incremental decline in the number and diversity of plant and animal species, including sensitive species. The project would contribute to this decline. This is a considerable contribution to this **significant** cumulative impact.*

Similar to the proposed project, additional development in the City of Rocklin would potentially result in impacts to native oak trees and heritage trees, riparian/wetland habitat, valley elderberry longhorn beetle, special-status fish species, western pond turtle, and special-status birds. Development in the City of Rocklin in combination with the proposed project would continue to diminish the lands available for biotic resources. Undeveloped lands in the city, as well as Placer County, serve as prime habitat for a variety of wildlife and vegetation. The continued development of these lands would result to the incremental decline in the number and diversity of plant and animal species, including sensitive species. The project would contribute to this decline. This is a considerable contribution to this significant cumulative impact.

These impacts would be reduced to a less-than-significant level with implementation of mitigation measures identified in Section 4.12, Biological Resources of this Draft EIR. These mitigation measures would compensate for the loss of sensitive biological resources by replacing lost resources. However, as identified in the EIR for the City of Rocklin General Plan, the impacts on biological resources due to cumulative development within western Placer County would be significant and unavoidable. The General Plan EIR concluded that implementation of general plan policies, the existing tree protection ordinances, and ongoing wetlands preservation practices, would not be adequate to reduce the loss of vegetation and wildlife habitat associated with cumulative development. The project would considerably contribute to this cumulative regional loss of biological resources. This is a **significant** impact.

Mitigation Measure 6-27: Cumulative Biological Resource Impacts.

Implement the mitigation measures identified in Section 4.12, Biological Resources.

Level of Significance after Mitigation

Although biological resource impacts from the proposed project would be reduced to a less-than-significant level with implementation of the described mitigation, the unavoidable loss of sensitive biological resources on the project site would contribute to the large-scale cumulative regional loss of these resources. Because mitigation for loss of unavoidable biological resources resulting from the project would rely largely on habitat replacement via planting of seedlings and creation of wetlands, there would be a temporal loss of these resources between when the impact occurs and the mitigation habitat has reached the same level of development as the lost habitat. In addition, is it possible that mitigation would occur at an off-site location outside of western Placer County, in which case the loss of these resources within the local region would be permanent. The proposed project would result in a **significant and unavoidable** cumulative biological resource impact.

CULTURAL RESOURCES

CUMULATIVE IMPACT 6-28 **Cumulative Cultural Resources Impacts.** *Development of related projects described as a part of the cumulative scenario, with which this project is considered, have the potential to result in the discovery of undocumented subsurface cultural resources or unmarked historic-era and prehistoric Native American burials. However, these potential impacts would not increase in severity in consideration of cumulative projects. Measures addressing the response when undocumented resources are discovered would address this potential impact. For these reasons, the proposed project would result in a **less-than-significant** cumulative impact on cultural resources.*

Development of related projects described as a part of the cumulative scenario, with which this project is considered, have the potential to result in the discovery of undocumented subsurface cultural resources or unmarked historic-era and prehistoric Native American burials. However, these potential impacts would not increase in severity in consideration of cumulative projects. Due to the nature of cultural resources, adverse impacts are site-specific and need to be determined on a project-by-project basis. In addition, the incorporation of standard measures addressing the response when undocumented resources are discovered would address this potential impact. For these reasons, the proposed project would result in a **less-than-significant** cumulative impact on cultural resources.

Mitigation Measure 6-28: Cumulative Cultural Resources Impacts.

No mitigation is necessary.

LAND USE

CUMULATIVE IMPACT 6-29 **Land Use Impacts.** *The project would not physically divide an existing community. The project would not contribute to any significant impacts related to specific CEQA land use issues (division of a community, consistency with plans and policies adopted for the purpose of avoiding environmental impacts and therefore would not contribute to cumulative land use impacts in the region. The proposed project would result in a **less-than-significant** cumulative land use impact.*

As described in the Land Use section of this EIR, the impacts of the project relative to environmental plans, policies, and regulations are less than significant. As also discussed, the project is at the edge of Rocklin, and would not physically divide an existing community. The cumulative development within the region would result in a dramatic change in regional land uses, and individual projects would need to be considered in context of their contribution to this change. However, given that the project would not contribute to any significant impacts related to specific CEQA land use issues (division of a community, consistency with plans and policies adopted for the purpose of avoiding environmental impacts), the project would not contribute to cumulative land use impacts in the region. The proposed project would result in a **less-than-significant** cumulative land use impact.

6.2 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

In compliance with CEQA requirements, this section analyzes the growth-inducing impacts of the proposed project. It also evaluates the potential for the significant and irreversible commitment of resources associated with project implementation.

6.2.1 GROWTH-INDUCING IMPACTS

REQUIREMENTS FOR ANALYSIS OF GROWTH-INDUCING IMPACTS

According to Section 15126.2(d) of the State CEQA Guidelines, an EIR must discuss the growth-inducing impacts of the proposed project. Specifically, CEQA states that the EIR shall:

Discuss ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects that would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring the construction of new facilities that could cause significant environmental effects. Also discuss characteristics of some projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises); or a construction effort with substantial short-term employment opportunities that indirectly stimulates the need for additional housing and services to support the new employment demand; and/or removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may lead to environmental effects. These environmental effects may include increased demand on other community and public services and infrastructure, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, or conversion of agricultural and open space land to urban uses.

GROWTH INDUCING IMPACTS OF THE PROJECT

The project site is located within the City of Rocklin jurisdictional boundaries. As discussed in Chapter 4, the City General Plan identifies single family residential, recreation-conservation, and retail commercial land uses for the project site.

The 56.9-acre project site is currently designated as LDR (Low Density Residential), MDR (Medium Density Residential), RC (Retail Commercial), and R-C (Recreation-Conservation) under Rocklin's General Plan (Exhibit 4.1-1). Roughly 12.48 acres onsite is designated Medium Density Residential, 41.55 acres is designated Low Density Residential, approximately 1.23 acres is designated Retail Commercial, and 1.63 acres is designated Recreation/Conservation. The General Plan density range for Low Density Residential is between 1 and 3 units per acre, while under the Medium Density Residential category, the range is 4 to 8 units per acre.

The site is currently zoned as UN (Unclassified), C-2 (Retail Business), OA (Open Area), and R1-12.5 (Residential with a 12,500 square-foot net minimum lot size) (Exhibit 4.1-2).

Roadways providing access to and within the project site would consist of existing roads, improved roads along existing roadway alignments, and new roads. Because of the project site's location (i.e., adjacent to Interstate 80 (I-80) and removed from Sierra College Boulevard), the project site would require construction of roadways to provide access to Sierra College Boulevard. Primary access for the project site would be from Sierra College Boulevard. The roads constructed on the project site would not provide new or substantially enhanced access to currently undeveloped areas in areas surrounding the project site. Proposed roadways on the project site would only provide connectivity between the proposed residential development, the approved Croftwood project, and Sierra College Boulevard. Roads are stubbed to the north to connect to lands already designated by the City for residential development. Sites to the north are bound by Interstate 80 and the Town of Loomis. Roads stubbed to the north would be local serving and would not indirectly induce any substantial development. There are established rural residential land uses north and northeast of the project site that would not link with any infrastructure on-site.

Currently, there are no public storm drain facilities that serve the project site or any adjacent properties to the south, east, and west. A formal storm water management system is proposed for the project site that would include a series of pipes and detention facilities that would be operated by the City. A detention basin would be constructed near the southwest corner of the project site to serve this project and a commercial project known as Rocklin Crossings. These storm water facilities would serve only this project and the Rocklin Crossings project and would not be sized to handle additional flows from other development projects outside the plan area. Therefore, construction of storm water collection and conveyance facilities would not be growth inducing.

The PCWA currently does not provide water service to the project site. The proposed project includes plans for extension of PCWA's infrastructure from the existing water mains located in Sierra College Boulevard, Dias Lane, and or the Croftwood development project access road. The extension of water infrastructure to the project site would not allow for extending water service to adjacent undeveloped properties in areas surrounding the project site. Extension of water services to the project site would be designed to serve this project alone and would not induce further growth.

Municipal wastewater treatment service is not currently available to the project site. However, a main sewer line, operated by the South Placer Municipal Utility District (SPMUD), currently exists along Sierra College Boulevard. The proposed project would connect to this main sewer line at a point along Sierra College Boulevard. The proposed project would construct the necessary facilities on-site to serve development and connect to SPMUD's wastewater conveyance system. There are established rural residential land uses north and northeast of the project site that would not link with sewer infrastructure proposed onsite. Areas to the north of the project site that could connect with sewer infrastructure extended to the project site are already planned for residential development under the City's General Plan and, as such, addressed by the City's General Plan EIR. I-80 would be a boundary to any further extension of sewer infrastructure to the north. Established rural residential uses in the Town of Loomis would not be connected to this sewer infrastructure. In short, the sewer infrastructure construction onsite would not induce growth by extending into any area not planned for development.

The proposed project would bring construction workers to the project site for each development phase. Because construction workers typically do not change where they live each time they are assigned to a new construction site, it is not anticipated that there would be any substantial relocation of construction workers to the City or Placer County associated with the proposed project. The existing number of residents in the City and Placer County who are employed in the construction industry would likely be sufficient to meet the demand for construction workers that would be generated by the proposed project. Between June and July 2007, the construction industry in Sacramento Metropolitan Area lost 400 jobs, which accounts for an early cutback of construction jobs and is not usual for July (EDD 2007). The midyear retreat in construction employment during what is normally a peak summer month is evidence of the housing market slump (EDD 2007). As of July 2007, there were 70,200 jobs in the construction industry for the Sacramento metropolitan area which accounts for a loss of 3,100 construction jobs between June 2007 and July 2007 (EDD 2007). No substantial increase in demand

for housing or goods and services would be created by project construction workers, and thus no growth inducement associated with these workers would be expected.

The proposed project would include the development of 179 residential units generating an estimated population of 490 residents. The additional population associated with the proposed project would spur an increase in demand for goods and services in the surrounding area and region, which could potentially result in additional development to satisfy this demand. In this respect, the proposed project would be growth inducing. However, areas designated for future commercial and industrial land uses are located adjacent to and within the vicinity of the project site. It would be speculative to try to predict exactly where and when any such new services would be developed, and whether or not existing and future planned commercial development would satisfy additional demand for goods and services created by the project. The most logical assumption, however, is that they would locate where the existing City and County General Plans currently anticipate them. The general plans have already undergone environmental review and any new individual projects requiring discretionary approvals would undergo their own environmental review (provided some discretionary action of the City is required).

Fire, protection, law enforcement, and other City services would be expanded only as necessary to meet project demand. As discussed in Section 4.6, “Utilities and Public Services,” existing law enforcement and fire protection services have sufficient capacity to serve the proposed project. In addition, the project would be required to pay fees to ensure adequate facilities and services are in place to meet project demands. Because adequate public services are available to serve the project or the proposed project would provide or ensure that additional public services would be available to meet project demands (i.e., police, fire), it would not facilitate additional development requiring public services.

Overall, it is possible that the proposed project could be growth inducing because the increased population associated with the proposed project could minimally increase demand for goods and services, thereby fostering population and economic growth in the City of Rocklin and nearby communities. It is possible that a successful project could place pressure on adjacent areas to the east, north, and south to seek development entitlements. It would be speculative, however, to assume that these areas would in fact develop with urban uses, and numerous discretionary actions subject to environmental review and political considerations would have to be granted before any such urban uses could materialize. In summary, any minimal growth that the proposed project could induce has been evaluated and provided for in the City of Rocklin General Plan, Placer County General Plan, Town of Loomis General Plan, and other relevant planning documents.

6.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE CAUSED BY THE PROPOSED PROJECT

CEQA (Public Resources Code Section 21100[b][2]) provides that an EIR shall include a detailed statement setting forth “[i]n a separate section...[a]ny significant effects on the environment that would be irreversible if the project is implemented.” State CEQA Guidelines Section 15126.2(c) provides the following guidelines for analyzing the significant irreversible environmental changes of a project:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irretrievable damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The proposed project would use both renewable and nonrenewable natural resources for project construction and operation. The proposed project would use nonrenewable fossil fuels in the form of oil and gasoline during construction and operation. Other nonrenewable and slowly-renewable resources consumed as a result of project

development would include, but not necessarily be limited to, lumber and other forest products, sand and gravel, asphalt, petrochemical construction materials, steel, copper, lead, and water.

The proposed project involves construction of housing, converting undeveloped land to urban uses. This change in land use would represent a long-term commitment to urbanization, as the potential for developed land to be reverted back to undeveloped land uses is highly unlikely.

Lastly, the proposed project is not anticipated to result in irreversible damage from environmental accidents, such as an accidental spill or explosion of a hazardous material. During construction, equipment would be using various types of fuel and material classified as hazardous. In the State of California, the storage and use of hazardous substances are strictly regulated and enforced by various local, regional, and state agencies. The enforcement of these existing regulations would preclude credible significant project impacts related to environmental accidents.

6.4 GLOBAL CLIMATE CHANGE

The California Environmental Quality Act (CEQA) requires that lead agencies consider the reasonably foreseeable adverse environmental effects of projects they are considering for approval. Emissions of greenhouse gases (GHGs) have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. In turn, global climate change has the potential to cause sea level rise, which can inundate low-lying areas; to affect rain and snow fall, leading to changes in water supply; to affect habitat, leading to adverse affects on biological resources, etc.

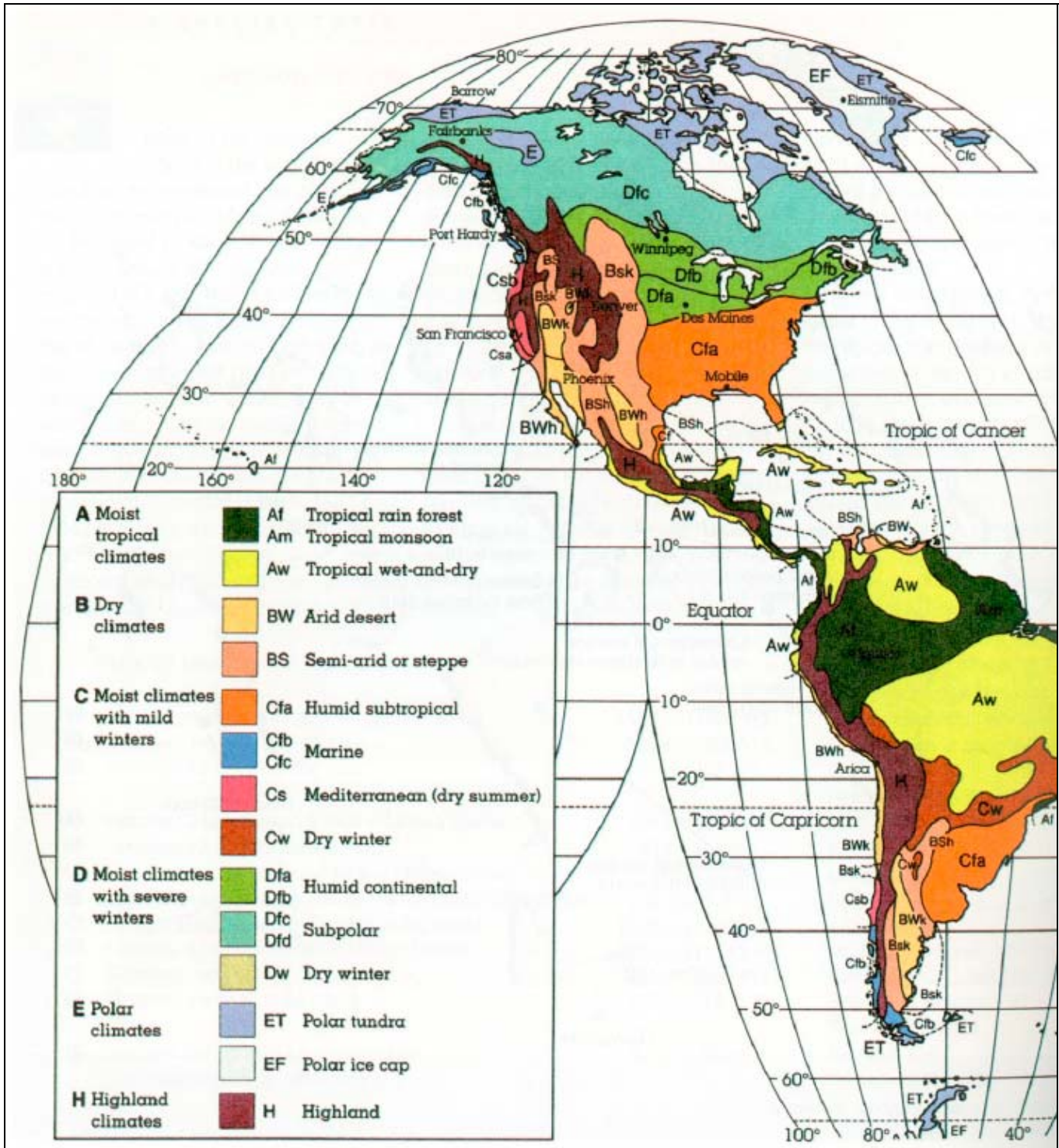
As noted previously, cumulative impacts are the collective impacts of one or more past, present, and future projects, that, when combined, result in adverse changes to the environment. When the adverse change is substantial, the cumulative impact is considered significant. The cumulative project list for this issue (global climate) comprises anthropogenic (i.e., man-made) GHG emission sources across the entire globe. No project alone would cause any noticeable incremental change to the global climate. However, legislation and executive orders on the subject of climate change in California have established a statewide context for GHG emissions, and an enforceable statewide cap on GHG emissions. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires the evaluation of the cumulative impacts of GHGs. Even relatively small (on a global basis) additions need to be considered, and small contributions to this cumulative impact (from which significant effects are occurring and are expected to worsen over time) may be potentially considerable (and therefore, significant). Thus, the City of Rocklin has concluded that GHG emissions require consideration under CEQA.

6.4.1 ENVIRONMENTAL SETTING

EXISTING CLIMATE

Climate is the accumulation of daily and seasonal weather events over a long period of time, whereas weather is defined as the condition of the atmosphere at any particular time and place (Ahrens 2003). The proposed project site is located in a climatic zone characterized as dry-summer subtropical or Mediterranean (abbreviated C_s) on the Köppen climate classification system. The Köppen system's classifications are primarily based on annual and monthly averages of temperature and precipitation (See Exhibit 6-10 for a global map of climate classifications).

The Sacramento Valley Air Basin (SVAB) is relatively flat, bordered by mountains to the east, west, and north. The climate is characterized by hot, dry summers and cool, rainy winters. Periods of dense and persistent low-level fog that are most prevalent between storms are characteristic of SVAB winter weather. The extreme summer aridity of the Mediterranean climate is caused by sinking air of subtropical high pressure regions. In the case of the SVAB, the ocean has less influence than in the coastal areas, giving the interior Mediterranean climate (abbreviated C_{sa} on the Köppen climate system) more seasonal temperature variation (Ahrens 2003).



Source: Ahrens 2003

The Köppen Climate Classification System

Exhibit 6-10

Most precipitation in the area results from air masses that move in from the Pacific Ocean during the winter months. These storms usually move from the west or northwest. More than half the total annual precipitation falls during the winter rainy season (November–February); the average winter temperature is a moderate 49°F. During the summer, daily temperatures range from 50°F to more than 100°F. The inland location and surrounding mountains shelter the area from many of the ocean breezes that keep the coastal regions moderate in temperature.

Local climate of the project site is represented by measurements recorded at the Sacramento station. The normal annual precipitation, which occurs primarily from November through March, is approximately 18 inches. January temperatures range from a normal minimum of 38°F to a normal maximum of 53°F. July temperatures range from a normal minimum of 58°F to a normal maximum of 93°F (National Oceanic and Atmospheric Administration 1992). The predominant wind direction and speed is from the south-southwest at 10 miles per hour (mph) (ARB 1994).

ATTRIBUTING CLIMATE CHANGE – THE PHYSICAL SCIENTIFIC BASIS

Certain gases in the earth’s atmosphere, classified as GHGs, play a critical role in determining the earth’s surface temperature. Solar radiation enters the earth’s atmosphere from space. A portion of the radiation is absorbed by the earth’s surface, and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth, as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead “trapped,” resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on Earth. Without the greenhouse effect, Earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), ozone, nitrous oxide, hydrofluorocarbons, chlorofluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the Greenhouse Effect and have led to a trend of unnatural warming of the earth’s climate, known as global climate change or global warming. It is *extremely unlikely* that global climate change of the past 50 years can be explained without the contribution from human activities (Intergovernmental Panel on Climate Change [IPCC] 2007).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO₂ emissions, approximately 54% is sequestered through ocean uptake, uptake by northern hemisphere forest regrowth, and other terrestrial sinks within a year, whereas the remaining 46% of human-caused CO₂ emissions remains stored in the atmosphere (Seinfeld and Pandis 1998).

Similarly, impacts of GHGs are borne globally, as opposed to localized air quality effects of criteria air pollutants and TACs. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; suffice it to say, the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro climate. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

ATTRIBUTING CLIMATE CHANGE - GREENHOUSE GAS EMISSION SOURCES

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (ARB 2009e).

An analysis of data, compiled by the United Nations Framework Convention on Climate Change (UNFCCC), indicates that in 2004, total GHG emissions were 20,135 teragrams (Tg) CO₂ Equivalent (CO₂e), excluding emissions/removals from land use, land use change, and forestry (UNFCCC 2006).

In 2004, the U.S. contributed the most GHG emissions of any country to the total global inventory (35% of global emissions). In 2004, in the U.S., total GHG emissions were 7,074.4 Tg CO₂ Eq, which is an increase of 15.8% from 1990 emissions (EPA 2006d). In 2005, total U.S. GHG emissions were 7,260.4 Tg CO₂ Eq (EPA 2007). Overall, total U.S. emissions have risen by 16.3% from 1990 to 2005, while the U.S. gross domestic product has increased by 55% over the same period (EPA 2007). Emissions rose from 2004 to 2005, increasing by 0.8% (56.7 Tg CO₂ Eq). The main causes of the increase are (1) strong economic growth in 2005, leading to increased demand for electricity and (2) an increase in the demand for electricity, due to warmer summer conditions (EPA 2007). However, a decrease in demand for fuels that is due to warmer winter conditions and higher fuel prices moderated the increase in emissions (EPA 2007). California is the 12th to 16th largest emitter of CO₂ in the world (CEC 2006a). California produced 480 million gross metric tons of CO₂e in 2004 (ARB 2009e). CO₂e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, as described in Appendix C, "Calculation References," of the General Reporting Protocol of the California Climate Action Registry (CCAR 2009), 1 ton of CH₄ has the same contribution to the greenhouse effect as approximately 21 tons of CO₂. Therefore, CH₄ is a much more potent GHG than CO₂. Expressing emissions in CO₂e takes the contributions of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

During 1990 to 2003, California's gross state product grew 83%, while GHG emissions grew 12%. While California has a high amount of GHG emissions, it has relatively (to the United States) low emissions per capita. In 2004, California produced 492 Tg CO₂ Eq (CEC 2006a), which is approximately 7% of U.S. emissions.

In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (ARB 2009e). Emissions of CO₂ are byproducts of fossil fuel combustion. CH₄, a highly potent GHG, results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) is largely associated with agricultural practices and decomposition of solid waste and waste water. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution, respectively, two of the most common processes of CO₂ sequestration.

Emissions from fuel use in the commercial and residential sectors in California decreased 9.7 percent over the 1990 to 2004 period (CEC 2006a). According to the CEC, the decrease in greenhouse gases demonstrates the efficacy of energy conservation in buildings (Title 24 requirements) and appliances. The 2005 Title 24 Standards will further reduce greenhouse gas emissions. The decrease in greenhouse gases attributed to these sources is even more substantial when the population increase in California is considered.

ADAPTATION TO CLIMATE CHANGE

According to the IPCC, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature is expected to increase by 3–7°F by the end of the century, depending on future GHG emission scenarios (IPCC 2007). Resource areas other than air quality and atmospheric temperature could be indirectly affected by the accumulation of GHG emissions. For example, an

increase in the global average temperature is expected to result in a decreased volume of precipitation falling as snow in California and an overall reduction in snowpack in the Sierra Nevada. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state (including the project site). According to the California Energy Commission (2006b), the snowpack portion of the water supply could potentially decline by 30–90% by the end of the 21st century. A study cited in a report by the California Department of Water Resources (DWR) projects that approximately 50% of the statewide snowpack will be lost by the end of the century (Knowles and Cayan 2002). Although current forecasts are uncertain, it is evident that this phenomenon could lead to significant challenges in securing an adequate water supply for a growing population. An increase in precipitation falling as rain rather than snow also could lead to increased potential for floods because water that would normally be held in the Sierra Nevada until spring could flow into the Central Valley concurrently with winter storm events. This scenario would place more pressure on California’s levee/flood control system (DWR 2006).

Please refer to information presented previously in this section for more detail on the potential effects of climate change on water supply.

Another outcome of global climate change is sea level rise. Sea level rose approximately 7 inches during the last century (CEC 2006b), and it is predicted to rise an additional 7–22 inches by 2100, depending on the future levels of GHG emissions (IPCC 2007). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion (especially a concern in the low-lying Sacramento–San Joaquin River Delta, where pumps delivering potable water could be threatened), and disruption of wetlands (CEC 2006b). As the existing climate throughout California changes over time, the ranges of various plant and wildlife species could shift or be reduced, depending on the favored temperature and moisture regimes of each species. In the worst cases, some species would become extinct or be extirpated from the state if suitable conditions are no longer available.

6.4.2 REGULATORY SETTING

Federal Plans, Policies, Regulations, and Laws

Greenhouse Gases

The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for implementing the Federal Clean Air Act (CAA). The U.S. Supreme Court ruled on April 2, 2007 that CO₂ is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs. However, there are no federal regulations or policies regarding GHG emissions applicable to the proposed project at the time of writing.

State Plans, Policies, Regulations, and Laws

ARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA), which was adopted in 1988.

Greenhouse Gases

Various statewide and local initiatives to reduce the state’s contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term. Because every nation emits GHGs and therefore makes an incremental cumulative contribution to global climate change, cooperation on a global scale will be required to reduce the rate of GHG emissions to a level that can help to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

Assembly Bill 1493

In 2002, then-Governor Gray Davis signed Assembly Bill (AB) 1493 (Stats. 2002, ch. 200) (amending Health & Safety Code, § 42823 and adding Health & Safety Code, § 43018.5). AB 1493 requires that ARB develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by ARB to be vehicles whose primary use is noncommercial personal transportation in the state.”

To meet the requirements of AB 1493, in 2004 ARB approved amendments to the California Code of Regulations (CCR) adding GHG emissions standards to California’s existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR §§ 1900, 1961), and adoption of Section 1961.1 (13 CCR § 1961.1) require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily for the transportation of persons), beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. For passenger cars and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 pounds or less, the GHG emission limits for the 2016 model year are approximately 37% lower than the limits for the first year of the regulations, the 2009 model year. For light-duty trucks with LVW of 3,751 pounds to gross vehicle weight (GVW) of 8,500 pounds, as well as medium-duty passenger vehicles, GHG emissions would be reduced approximately 24% between 2009 and 2016.

In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of 13 CCR Sections 1900 and 1961 as amended by AB 1493 and 13 CCR 1961.1 (*Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in Her Official Capacity as Executive Director of the California Air Resources Board, et al.*). The suit in the U.S. District Court for the Eastern District of California contended that California’s implementation of regulations that, in effect, regulate vehicle fuel economy violates various federal laws, regulations, and policies.

In January 2007, the judge hearing the case accepted a request from the State Attorney General’s office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court case, *Massachusetts, et al., v. Environmental Protection Agency, et al.*, the primary issue in question was whether the CAA provides authority for EPA to regulate CO₂ emissions. EPA contended that the CAA does not authorize regulation of CO₂ emissions, whereas Massachusetts and 10 other states, including California, sued EPA to begin regulating CO₂. As mentioned above, the U.S. Supreme Court ruled on April 2, 2007, that GHGs are “air pollutants” as defined under the CAA and EPA is granted authority to regulate CO₂ (*Massachusetts v. U.S. Environmental Protection Agency* [2007] 549 U.S. 05-1120).

On December 12, 2007, the Court found that if California receives appropriate authorization from EPA (the last remaining factor in enforcing the standard), these regulations would be consistent with and have the force of federal law, thus, rejecting the automakers’ claim. This authorization to implement more stringent standards in California was requested in the form of a CAA Section 209, subsection (b) waiver in 2005. Since that time, EPA failed to act on granting California authorization to implement the standards. Governor Schwarzenegger and Attorney General Edmund G. Brown filed suit against EPA for the delay. In December 2007, EPA Administrator Stephen Johnson denied California’s request for the waiver to implement AB 1493. Johnson cited the need for a national approach to reducing GHG emissions, the lack of a “need to meet compelling and extraordinary conditions”, and the emissions reductions that would be achieved through the Energy Independence and Security Act of 2007 as the reasoning for the denial (Office of the White House 2009). The state of California filed suit against EPA for its decision to deny the CAA waiver. The recent change in administration has directed EPA to reexamine its position for denial of California’s CAA waiver and for its past opposition to GHG emissions regulation. It appears likely that California will receive the waiver, notwithstanding the previous denial by EPA, in 2009 or 2010. In mid-April 2009, the EPA proposed recognizing that GHG emissions are pollutants, which paves the way for regulatory action.

Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80% below the 1990 level by 2050.

The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary will also submit biannual reports to the governor and state legislature describing: progress made toward reaching the emission targets; impacts of global warming on California's resources; and mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created the California Climate Action Team (CCAT) made up of members from various state agencies and commissions. CCAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

Assembly Bill 32, the California Global Warming Solutions Act of 2006

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. (See Stats. 2006, ch. 488, enacting Health & Safety Code, §§ 38500–38599.) AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves the reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

California Climate Action Registry

The California Climate Action Registry (CCAR) was established in 2000 by Senate Bill 1771 and modified in 2001 by Senate Bill 527 as a nonprofit voluntary registry for GHG emissions. (See Stats. 2000, ch. 1018 (enacting Health & Safety Code, §§ 42800–42870 and Pub. Resources Code, § 25730) and Stats. 2001, ch. 769 (amending Health and Safety Code, §§ 42810, 42821–42824, 42840–42843, 42860, and 42870.) The purpose of CCAR is to help companies and organizations with operations in the state to establish GHG emissions baselines against which any future GHG emissions reduction requirements may be applied. CCAR has developed a general protocol and additional industry-specific protocols that provide guidance on how to inventory GHG emissions for participation in the registry.

Executive Order S-1-07

Executive Order S-1-07, which was signed by Governor Schwarzenegger in 2007, proclaims that the transportation sector is the main source of GHG emissions in California, at over 40% of statewide emissions. It

establishes a goal that the carbon intensity of transportation fuels sold in California should be reduced by a minimum of 10% by 2020. This order also directed ARB to determine if this Low Carbon Fuel Standard could be adopted as a discrete early action measure after meeting the mandates in AB 32.

Senate Bill 97

Senate Bill (SB) 97, signed August 2007, acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. (Stats. 2007, ch. 185 (enacting Pub. Resources Code, §§ 21083.05 and 21097.)) This bill directs the State Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA by July 1, 2009. Guidelines were transmitted in April of 2009. The Resources Agency is required to certify and adopt those guidelines by January 1, 2010. This bill also removes, both retroactively and prospectively, as legitimate litigation causes of action any claim of inadequate CEQA analysis of effects of GHG emissions associated with environmental review for projects funded by the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006, or the Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1B or 1E). This provision will be repealed by operation of law on January 1, 2010, at which time such projects, if any remain unapproved, will no longer enjoy the protection against litigation claims based on failure to adequately address climate change issues. This bill would only protect a handful of public agencies from CEQA challenges on certain types of projects for a few years time.

Senate Bill 1078

SB 1078 addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide a minimum 20% of their supply from renewable sources by 2017. SB 1078 changed the target date of this bill's implementation to 2010. This Senate bill would affect statewide GHG emissions associated with electricity generation.

Climate Change Proposed Scoping Plan

In October of 2008, ARB published its Climate Change Proposed Scoping Plan (Proposed Scoping Plan), which is the State's plan to achieve GHG reductions in California required by AB 32 (ARB 2009f). The Proposed Scoping Plan contains the main strategies California will implement to achieve reduction of 169 million metric tons (MMT) of CO₂e, or approximately 30% from the state's projected 2020 emission level of 596 MMT of CO₂e under a business-as-usual scenario (this is a reduction of 42 MMT CO₂e, or almost 10%, from 2002-2004 average emissions). The Proposed Scoping Plan also includes ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations are from improving emission standards for light-duty vehicles (estimated reductions of 31.7 MMT CO₂e), implementation of the Low-Carbon Fuel Standard (15.0 MMT CO₂e), energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO₂e), and a renewable portfolio standard for electricity production (21.3 MMT CO₂e). ARB has not yet determined what amount of GHG reductions it recommends from local government operations; however, the Proposed Scoping Plan does state that land use planning and urban growth decisions will play an important role in the State's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. (Meanwhile, ARB is also developing an additional protocol for community emissions.) ARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. The Proposed Scoping Plan states that the ultimate GHG reduction assignment to local government operations is to be determined (ARB 2009f). With regard to land use planning, the Proposed Scoping Plan expects approximately 5.0 MMT CO₂e will be achieved associated with implementation of SB 375, which is discussed further below. The Proposed Scoping Plan was approved by ARB on December 11, 2008.

Senate Bill 375

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS), which will prescribe land use allocation in that MPO's Regional Transportation Plan (RTP). ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every 8 years, but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects would not be eligible for funding programmed after January 1, 2012.

This bill also extends the minimum time period for the Regional Housing Needs Allocation (RNHA) cycle from 5 years to 8 years for local governments located within an MPO that meets certain requirements. City or County land use policies (including General Plans) are not required to be consistent with the RTP (and associated SCS or APS). However, new provisions of CEQA would incentivize qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND LAWS

Greenhouse Gases

There are no regional or local policies, regulations, or laws specifically pertaining to GHG emissions.

6.4.3 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Under CEQA, an environmental impact report must identify and focus on the significant environmental effects of a project. Significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment (Pub. Resources Code, Section 21068). CEQA further states that the CEQA Guidelines shall specify certain criteria to be used in determining whether projects would have a significant effect on the environment. However, as of the writing of this EIR, the agencies with jurisdiction over air quality regulation and GHG emissions such as the ARB and the Placer County Air Pollution Control District (PCAPCD) have not adopted regulations, guidance, methodologies, significance thresholds, or standards for the assessment of GHG emissions and climate change. A standardized, statewide methodology to establish an appropriate baseline, such as a project-level (regional GHG emissions) inventory, to evaluate the significance of GHG emission changes has not yet been established. This places the burden for establishing a methodology, and determining significance standards, on local lead agencies, such as the City of Rocklin. Given the global nature of this impact, the City believes that local lead agencies are not the most appropriate source for establishing methods and significance standards for assessing impacts on global climate change.

Given the challenges associated with determining project-specific significance criteria for this global-scale issue, and the fact that regulatory agencies best suited for developing the methodology have not yet established any criteria, the City has decided not to use a quantified significance threshold for use in this EIR.

To meet GHG emission targets of AB 32, California would need to generate in the future less GHG emissions than current levels. It is recognized, however, that for most projects there is no simple metric available to determine if a single project would substantially increase or decrease overall GHG emission levels or conflict with the goals of AB 32. Moreover, emitting CO₂ into the atmosphere is not itself an adverse environmental effect. It is the increased concentration of CO₂ in the atmosphere resulting in global climate change and the

associated consequences of climate change that results in adverse environmental effects (e.g., sea level rise, loss of snowpack, severe weather events). Although it is possible to generally estimate a project's incremental contribution of CO₂ into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment. Given the complex interactions between various global and regional-scale physical, chemical, atmospheric, terrestrial, and aquatic systems that result in the physical expressions of global climate change, it is impossible to discern whether the presence or absence of CO₂ emitted by the project would result in any altered conditions.

However, the State of California has established GHG reduction targets and has determined that GHG emissions as they relate to global climate change are a source of adverse environmental impacts in California that should be addressed under CEQA. Although AB 32 did not amend CEQA, it identifies the myriad environmental problems in California caused by global warming (Health and Safety Code, Section 38501[a]). SB 97, however, did amend CEQA by directing OPR to prepare revisions to the State

CEQA Guidelines addressing the mitigation of GHGs or their consequences. As an interim step toward development of required guidelines, in June of 2008, OPR published a technical advisory, entitled "CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review." OPR recommends that the lead agencies under CEQA make a good-faith effort, based on available information, to estimate the quantity of GHG emissions that would be generated by a proposed project, including the emissions associated with vehicular traffic, energy consumption, water usage, and construction activities, to determine whether the impacts have the potential to result in a project or cumulative impact and to mitigate the impacts where feasible (OPR 2008).

In that document, OPR acknowledged that "perhaps the most difficult part of the climate change analysis will be the determination of significance," and noted that "OPR has asked ARB technical staff to recommend a method for setting thresholds which will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state." ARB has not yet completed this task at the time of writing.

AB 32 requires ARB, the State agency charged with regulating statewide air quality, to adopt rules and regulations that by 2020 would achieve a reduction in greenhouse gas emissions equivalent to the statewide inventory levels of 1990. On or before June 30, 2007, ARB was required to publish a list of discrete GHG emission reduction measures that can be implemented. On April 20, 2007, ARB published their proposed early actions (ARB 2007a), which include discrete early action measures, additional greenhouse gas reduction strategies, and criteria and toxic control measures.

The California Environmental Protection Agency (CalEPA) Climate Action Team (CAT) developed a report that "proposes a path to achieve the Governor's targets [established in Executive Order S-3-05] that will build on voluntary actions of California businesses, local government and community actions, and State incentive and regulatory programs" (CAT 2006) needed to reduce activities that contribute to global climate change. The report indicates that the strategies will reduce California's emissions to the levels proposed in Executive Order S-3-05.

Given this information, AB 32, Executive Order S-3-05, and the CAT report all indicate that development projects need to reduce GHG emissions to the state's target levels by adopting the reduction measures in order to find that the project's incremental contribution to global climate change impacts are not significant. It is the City of Rocklin's position that, if the project is not consistent with those strategies that the City deems feasible, then a project could potentially be deemed to have a significant impact on global climate change.

For the purposes of this EIR, the City has decided to quantify total GHG emissions from the proposed project, compare the proposed project to the currently available set of strategies from the CAT and OPR, and determine whether the associated emissions would substantially help or hinder the State's ability to attain the goals identified in AB 32 (i.e., reduction of statewide GHG emissions to 1990 levels by 2020).

ANALYSIS METHODOLOGY

As described above, there is no available or recommended methodology (at least, not adopted by any air district or state agency) for evaluating GHG emissions from new development. In the case of the proposed project, CO₂ emissions associated with project construction and operation were modeled using URBEMIS 2007 version 9.2.4, a model widely-used in regional air quality analysis. Indirect emissions associated with energy consumption were estimated using methodology recommended in the current California Climate Action Registry General Reporting Protocol version 3.1 (CCAR 2009).

It is important to note that all CO₂ emissions from project operation may not necessarily be considered “new” emissions, given that a project itself does not create “new” emitters (people) of GHGs, at least not in the traditional sense. In other words, the GHG emissions for a residential project are not necessarily all new GHG emissions; to a large degree, a residential project, accommodates household relocations. In this sense, residential development projects can be seen as reacting to increased demand from the growing economy and population, and are not in themselves creators of economic and population growth. Emissions of GHGs are, however, influenced by the location and design of projects, to the extent that they can influence travel to and from the projects, and to the degree the projects are designed to maximize energy efficiency.

The methodology used in this EIR to analyze the project’s potential effect on global warming includes a calculation of GHG emissions. The City’s purpose of calculating the project’s GHG emissions is for informational and comparison purposes, as there is no adopted quantifiable threshold for either a project level or cumulative level of impact. Absent an adopted regulatory threshold or other regulatory guidance, the City has determined that the project’s potential for creating an impact on global climate change should be based on a comparative analysis of the project against the emission reduction strategies contained in the California Climate Action Team’s Report to the Governor and OPR’s published technical advisory entitled “CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review.” If it is determined that the proposed project is compatible or consistent with the applicable Climate Action Team (CAT) and Office of Planning and Research (OPR) strategies, the City would consider the project’s cumulative impact on global climate change to be less than significant.

IMPACT ANALYSIS

CUMULATIVE IMPACT 6-30 **Cumulative Contribution to Climate Change Impacts.** *The proposed project would generate GHG emissions during project construction and operation. The vast majority of GHG emissions associated with the project are attributable to the combustion of fossil fuels, primarily through the use of motor vehicles, but also from indirect sources (i.e., electricity-generating power plants). Implementation of City policies and mitigation measures would reduce GHG emissions from construction and operation of the project. The City has determined that through the implementation of these existing regulations, mitigation measures, and compliance with City policies and ordinances, the proposed project would either not apply or be in substantial compliance with the early emission reduction strategies contained in the California Climate Action Team’s (CAT’s) Report to the Governor and Executive Order S-3-05 and the recommendations from OPR. The City has determined that the quantity of GHG emissions associated with the proposed project would not undermine the goals mandated in AB 32, r Executive Order S-3-05. Therefore, the City considers the project’s climate change impacts to be less than cumulatively considerable, and therefore, **less than significant**.*

Project-Specific Impact

An individual project cannot generate enough GHG emissions to significantly influence global climate change. The project participates in this potential impact by its incremental contribution, combined with the cumulative contributions of all other sources of GHGs, which, when taken together, cause global climate change impacts.

Cumulative Impacts

The following discussion reviews the project's potential generation of GHGs and its incremental contribution to the cumulative effect resulting from emissions of GHGs. A two-tiered approach is used, as follows: (1) a discussion of project-generated GHG emissions and (2) project compliance with current regulation, and in particular, the emission reduction strategies contained in OPR's "CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review" and the California Climate Action Team's Report to the Governor.

Long-term operation of the proposed project would generate associated GHG emissions from area and mobile sources, and indirectly from stationary sources associated with increased electricity consumption. Mobile-source emissions of GHGs would include project-generated vehicle trips associated with residents of, and visitors to the project site. Area-source emissions would be associated with activities such as landscaping and maintenance of proposed land uses, natural gas consumption for space and water heating, and other sources. Increases in stationary-source emissions could occur at off-site utility providers associated with electricity = consumption by the proposed residences and increased water demand.

GHG emissions generated by the proposed project would predominantly consist of CO₂. In comparison to criteria air pollutants (CAPs), such as ozone and PM₁₀, CO₂ emissions persist in the atmosphere for a substantially longer period of time. While emissions of other GHGs, such as CH₄, are important with respect to global climate change, emission levels of other GHGs are less dependent on the land use and circulation patterns associated with the proposed land use development project than are levels of CO₂.

Mobile sources (vehicle trips and associated miles traveled) would be the primary emission source of GHGs associated with the proposed project. Transportation is also the largest source of GHG emissions in California and represents approximately 41% of annual CO₂ emissions generated in the state (CEC 2006a). Like most land use development projects, VMT is the most direct indicator of CO₂ emissions from the proposed project and associated CO₂ emissions function as the best indicator of total GHG emissions. Standard traffic engineering methodologies that treat all trips to and from a project site as a "net increase" or "new" trips and all VMT associated with the project as "new" VMT, is appropriate for localized and regional air quality or traffic analyses. For localized and regional air quality and traffic impacts, the location of pollutant emissions within a distinct air basin, and the impacts of a project on the local roadway network are important considerations. However, given the global nature of climate change impacts and the statewide context for legislation addressing California's contribution to this global impact, it may be inappropriate to assess GHG emissions in the same manner as is typical for other air quality impacts or traffic impacts. In the global context, project trips and project VMT may not really be "new," but may simply be shifted from one place to another as residents (and their travel characteristics) leave one area and occupy homes on the project site.

Buildout of the proposed project would add approximately 1,713 vehicle trips per day to the project area. These vehicular trips are the primary source of GHG emissions associated with project operation. If the total trips, as well as area-source and off-site stationary source GHG emissions are considered, operation of the project would generate total GHG emissions of 3,448 metric tons CO₂e annually during the lifetime of the project. Construction of the proposed project would generate a finite quantity of approximately 2,709 metric tons of CO₂ over the duration of construction activities (see Table 6-17). Construction would contribute GHG emissions to a much lesser extent than operation of the proposed project since construction emissions would happen once, whereas operational impacts are ongoing (with annual estimates presented below).

**Table 6-17
Summary of Modeled Greenhouse Gas (CO₂e) Emissions**

Source	CO ₂ e Emissions
Construction Emissions (to occur over 3 year buildout period)	metric tons¹
Total Direct Emissions	2,709
Operational Emissions (to occur over the lifetime of the project)	metric tons/year¹
Area-Source Emissions	476
Mobile-Source Emissions	2,479
Stationary-Source Emissions (Energy Consumption ²)	458
Stationary-Source Emissions (Water Consumption)	34
Total Direct and Indirect Emissions	3,448
Total Emissions/Capita	7

¹ Emissions were modeled using the URBEMIS 2007 (v9.2.4) computer model, based on trip generation rates contained in the traffic analysis prepared for the project (LSA 2007), proposed land uses identified in the project description, and default model assumptions where detailed information was not available. URBEMIS accounts for emissions from vehicles and natural gas use. URBEMIS output is in units of tons CO₂e/year, whereas a standard unit for reporting GHG emissions is in metric tons CO₂e/year. Conversions of URBEMIS output to metric units are contained in Appendix G.

² Indirect emissions associated with stationary sources (increased electricity consumption and water consumption) were calculated using the CCAR GRP (v3.1). These emissions are reported here for disclosure purposes and would clearly be anticipated to be regulated under AB 32, subject to mandatory emissions cap and trade programs, and, thus, would be consistent with AB 32 targets.

Notes: The values presented in Table 6-17 do not include the full life-cycle of GHG emissions that may occur over the production/transport of materials used during construction of the project, solid waste disposal over the life of the project, end-of-life of the materials and processes that would contribute to GHG emissions that occur as an indirect result of the project. Doing so would be speculative and would require analysis beyond the current state of the art in impact assessment, and would lead to a false and misleading level of precision in reporting of project-related GHG emissions.. The emissions associated with off-site facilities in California would be closely controlled, reported, capped and traded under AB 32 and ARB programs. Therefore, this category of emissions would be consistent with AB 32 requirements, and are, in effect, double-counted.

Refer to Appendix C for detailed assumptions and modeling output files.

Source: Data modeled by EDAW 2009.

Comparing the project GHG emissions of 3,448 metric tons per year to the state’s 2004 emissions level of 492 million metric tons per year yields an exceedingly small percentage, about 7 millionths of one percent. It is reasonable to conclude that the project’s incremental contribution is miniscule, viewed in the state or global context.

It is important to consider an appropriate context for GHG emissions. GHG emissions are dispersed throughout the atmosphere worldwide, and the effects of climate change are borne globally, unlike criteria air pollutant emissions, which have regional and/or local impacts on air quality. As noted earlier, the extent to which GHG emissions attributable to the project can be treated as “new” is uncertain. For this reason and others discussed above in the section describing methods for analysis, it is more relevant to consider the GHG-efficiency (GHG per-capita, per-employee, per dollar revenue, or some other normalization strategy) of a project rather than simply the mass of GHG emissions. If operational GHG emissions were attributed to the population of the proposed project, the project would generate GHG emissions at approximately 7 metric tons CO₂e/year/capita.

California Governor Arnold Schwarzenegger announced on June 1, 2005 through Executive Order S-3-05 (Climate Change) GHG emission reduction targets as follows: by 2010, reduce GHG emissions to 2000 levels; by

2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels (CA 2005). Some literature equates these reductions to 11 percent by 2010 and 25 percent by 2020.

AB 32 requires that by January 1, 2008, the state board shall determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. While the level of 1990 GHG emissions has not been approved at this time, other publications indicate that levels varied from 425 to 468 Tg CO₂ Eq (CEC 2006a). In 2004, the emissions were estimated at 492 Tg CO₂ Eq (CEC 2006a). Using the range of 1990 emissions, a reduction of between 5 and 13 percent would be needed to reduce 2004 levels to 1990 levels.

The CAT developed a report that “proposes a path to achieve the Governor’s targets that will build on voluntary actions of California businesses, local government and community actions, and State incentive and regulatory programs” (CAT 2006). The report indicates that the strategies will reduce California’s emissions to the levels proposed in Executive Order S-3-05.

The strategies that apply to the project are contained in Table 6-18. These strategies are broad in their scope and address a wide range of industries and GHG emission sources. Therefore, most of the strategies are not applicable to the development and operation of any single residential project. Also, for those strategies that are applicable, specific regulations or detailed guidance regarding their implementation is typically not available. Thus, the project’s compliance with these measures was evaluated by the City qualitatively with the understanding that exact compliance can only be determined once specifically applicable regulations are adopted. The analysis included in this table focuses on the ability of the project to substantially comply with the applicable strategies.

Table 6-18 Project Compliance with CAT Greenhouse Gas Emission Reduction Strategies	
Strategy and Description	Project Compliance
California Air Resources Board	
Vehicle Climate Change Standards AB 1493 (Pavley) required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004.	Not Applicable. This measure applies to passenger vehicles and light duty trucks. The project does not manufacture, sale or purchase these vehicles. Vehicles used onsite would be required to comply with applicable State and federal regulations, once implemented.
Other Light Duty Vehicle Technology New standards would be adopted to phase in beginning in the 2017 model year	Not Applicable. The project does not manufacture, sale or purchase light duty vehicles. Light duty trucks that access the site would be required to be in compliance with applicable State and federal regulations.
Diesel Anti-Idling In July 2004, the ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Not Applicable. The proposed project would be required to comply with ARB limits on diesel-fueled commercial motor vehicle idling if applicable to diesel fueled vehicles used during construction. The operational phase of the project would not involve commercial diesel fueled vehicles.
Hydrofluorocarbon Reduction (1) Ban retail sale of HFC in small cans. (2) Require that only low GWP refrigerants be used in new vehicular systems. (3) Adopt specifications for new commercial	Not applicable. The project does not involve retail uses.

**Table 6-18
Project Compliance with CAT Greenhouse Gas Emission Reduction Strategies**

Strategy and Description	Project Compliance
refrigeration. (4) Add refrigerant leak-tightness to the pass criteria for vehicular inspection and maintenance programs. (5) Enforce federal ban on releasing HFCs.	
Transportation Refrigeration Units (TRUs), Off-Road Electrification, Port Electrification Strategies to reduce emissions from TRUs, increase off-road electrification, and increase use of shore-side/port electrification.	Not applicable. The project does not involve transportation refrigeration units.
Manure Management Strategies to reduce volatile organic compounds from confined animal facilities.	Not Applicable. The project does not involve confined animal facilities.
Alternative Fuels: Biodiesel Blends ARB would develop regulations to require the use of 1 to 4% biodiesel displacement of California diesel fuel.	Not Applicable. The proposed project does not include any fuel-dispensing facilities.
Alternative Fuels: Ethanol Increased use of ethanol fuel.	Not Applicable. The proposed project does not include any fuel-dispensing facilities.
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.	Not Applicable. The proposed project would not include any activities associated with the design of vehicles and would not include heavy-duty vehicle education programs.
Reduced Venting and Leaks in Oil and Gas Systems Rule considered for adoption by the Air Pollution Control Districts for improved management practices.	Not Applicable. The project does not involve oil or gas systems.
Hydrogen Highway The California Hydrogen Highway Network (CA H2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy.	Not Applicable. The project does not involve highway related planning.
Achieve 50 Percent Statewide Recycling Goal Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy-intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	Compliant. The City of Rocklin diverts over 50% of the solid waste generated within the City from landfill disposal, consistent with the requirements of AB 939. The majority of this diversion takes place at the Western Regional Materials Recovery Facility (MRF) in Placer County. The MRF recovers recyclable materials such as glass, metals, paper, plastics, wood waste and other compostable materials. Solid waste generated from the proposed project would be delivered to the MRF. Therefore the proposed project would be consistent with this strategy.
Landfill Methane Capture Install direct gas use or electricity projects at landfills to capture and use emitted methane.	Not Applicable. The project does not involve or require improvements to any landfill.

**Table 6-18
Project Compliance with CAT Greenhouse Gas Emission Reduction Strategies**

Strategy and Description	Project Compliance
Department of Forestry	
<p>Urban Forestry A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.</p>	<p>Compliant.</p> <p>The City has adopted an Urban Forest Plan with specific strategies for expanding tree canopy within the City. The City's Urban Forest Plan has shown that development in the City that is consistent with City General Plan policies has resulted in an increase of tree canopy cover from 11% in 1952 to 18% in 2003 (a 63% increase). The Urban Forest Plan provides a framework for the City to maintain its existing tree canopy cover and to increase it to a greater extent as development continues. In addition, Mitigation Measure 4.12-2 would assist with increasing tree cover of the proposed project site.</p>
<p>Reforestation Projects Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types.</p>	<p>Not Applicable.</p> <p>This project does not involve forested lands or restoration.</p>
Department of Water Resources	
<p>Water Use Efficiency Approximately 19% of all electricity, 30% of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.</p>	<p>Compliant.</p> <p>The project's landscape plan is also required by the City to be certified by the landscape architect as meeting the requirements of the Water Conservation in Landscaping Act (Government Code Section 65591, et. seq.). In addition, Mitigation Measure 6-7 would assist with reducing water consumption from the proposed project.</p>
Energy Commission (CEC)	
<p>Building Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).</p>	<p>Compliant.</p> <p>Construction and operation of all of the proposed buildings on the site would be required to comply with the energy efficiency standards included in Title 24 of the California Code of Regulations. Title 24 identifies specific energy efficiency requirements for building construction and systems operations that are intended to ensure efficient energy usage over the long-term life of the building.</p> <p>In addition, Mitigation Measure 6-7 also requires use of solar, low-emissions, or central or tankless water heaters, increase wall and attic insulation beyond Title 24 requirements, and clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems), as determined feasible by the City.</p>
<p>Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and</p>	<p>Compliant.</p> <p>Construction and operation of all of the proposed buildings on the site would be required to comply with the energy efficiency standards included in Title 24 of the California</p>

**Table 6-18
Project Compliance with CAT Greenhouse Gas Emission Reduction Strategies**

Strategy and Description	Project Compliance
equipment using energy that are sold or offered for sale in California).	<p>Code of Regulations. Title 24 identifies specific energy efficiency requirements for building construction and systems operations that are intended to ensure efficient energy usage over the long-term life of the building.</p> <p>In addition, Mitigation Measure 6-7 also requires use of solar, low-emissions, or central or tankless water heaters, increase wall and attic insulation beyond Title 24 requirements, orientation of buildings to take advantage of passive solar heating and natural cooling, energy efficient windows, tree shading above that required by code, install photovoltaic cells, programmable thermostats for all heating and cooling systems, awnings or other shading mechanisms for windows and walkways, utilize day lighting systems such as skylights, light shelves, and interior transom windows, and clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems) and provide a minimum of 10% on-site renewable energy, as determined feasible by the City.</p>
Cement Manufacturing Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.	Not Applicable
Municipal Utility Strategies Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	Not Applicable
Alternative Fuels: Non-Petroleum Fuels Increasing the use of non-petroleum fuels in California’s transportation sector, as recommended in the CEC’s 2003 and 2005 Integrated Energy Policy Reports.	Not Applicable
Business Transportation and Housing	
<p>Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods, and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through State investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity, and a quality environment. Smart land use, demand management, ITS, and value pricing are critical elements in this plan for improving</p>	<p>Compliant.</p> <p>The proposed project would be required to comply with applicable City of Rocklin General Plan policies that encourage smart land use development. These policies include the following:</p> <p>Circulation Element, Policy 3 – “To require bike lanes in the design and construction of major new street and highway improvements, and to establish bike lanes on those City streets wide enough to accommodate bicycles safely.” The City of Rocklin Bikeway System Map includes a proposed Class II bikeway in the project vicinity on Sierra College Boulevard. The proposed project would not affect the ability to implement this bikeway and would not conflict with this policy.</p> <p>Circulation Element, Policy 6 – “To promote pedestrian</p>

**Table 6-18
Project Compliance with CAT Greenhouse Gas Emission Reduction Strategies**

Strategy and Description	Project Compliance
<p>mobility and transportation efficiency. Specific strategies include promoting jobs/housing proximity and transit-oriented development; encouraging high-density residential/commercial development along transit/rail corridor; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, and incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.</p>	<p>convenience through development conditions requiring sidewalks, walking paths, or hiking trails that connect residential areas with commercial, shopping and employment centers.” The project includes several features to promote pedestrian convenience, including sidewalks and a combined emergency vehicle/pedestrian access that connects the proposed residential project with an approved commercial project to the west. The proximity of the commercial project to the proposed residential uses and the pedestrian connection would encourage walking or bicycling trips between the two developments and creates proximity between jobs and housing. Therefore, the project would be consistent with this policy.</p> <p>Circulation Element, Policy 10 – “To promote the use of public transit through development conditions requiring park-and-ride lots, bus turnouts and passenger shelters along major streets.” The project would be subject to a mitigation measure (6-7) that promotes transit enhancing infrastructure that includes transit shelters, benches, street lighting, route signs and displays, and/or bus turnouts/bulbs. Therefore, the project would be consistent with this policy.</p>
<p>Measures to Improve Transportation Energy Efficiency Builds on current efforts to provide a framework for expanded and new initiatives, including incentives, tools, and information that advance cleaner transportation and reduce climate change emissions.</p>	<p>Not applicable. This measure is implemented at the statewide level.</p>
<p>Department of Food and Agriculture</p>	
<p>Enteric Fermentation Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.</p>	<p>Not Applicable</p>
<p>State and Consumer Services Agency</p>	
<p>Green Buildings Initiative Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels. The Executive Order and related action plan spell out specific actions State agencies are to take with State-owned and -leased buildings. The order and plan also discuss various strategies and incentives to encourage private building owners and operators to achieve the 20 percent target.</p>	<p>Compliant. As discussed above, the project would be required through Title 24 requirements and Mitigation Measure 6-7 to include energy efficiency measures.</p>
<p>Public Utilities Commission (PUC)</p>	
<p>Accelerated Renewable Portfolio Standard The Governor has set a goal of achieving 33 percent renewables in the State’s resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.</p>	<p>Not Applicable</p>

Table 6-18	
Project Compliance with CAT Greenhouse Gas Emission Reduction Strategies	
Strategy and Description	Project Compliance
Investor-Owned Utility This strategy includes energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy for investor owned utility.	Not Applicable
Source: Summarized from CAT 2006.	

As noted previously, in June of 2008, the California Governor’s Office of Planning and Research (OPR) published a technical advisory entitled “CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review.” As a part of this document, OPR included examples of recommended measures that lead agencies may wish to consider to reduce GHG emissions. The recommendations from OPR are contained in Table 6-19. As with the CAT strategies identified above, the OPR recommendations are broad in their scope and address a wide range of industries and GHG emission sources. Most of these recommendations are not applicable at the project level. As noted in the OPR technical advisory, “in some cases GHG emission reduction measures will not be feasible or may not be effective at a project level. Rather, it may be more appropriate and more effective to develop and adopt program-level plans, policies and measures that will result in a reduction of GHG emissions on a regional level.”

Also, for those recommendations that are applicable, specific regulations or detailed guidance regarding their implementation is typically not available. Thus, the project’s compliance with these measures was evaluated by the City qualitatively with the understanding that exact compliance can only be determined once specifically applicable regulations are adopted. The analysis included in the table below focuses on the ability of the project to substantially comply with the applicable strategies.

Table 6-19	
Project Compliance with OPR Greenhouse Gas Emission Reduction Recommendations	
Recommendation and Description	Project Compliance
Land Use and Transportation	
Implement land use strategies to encourage jobs/housing proximity, promote transit-oriented development, and encourage high density development along transportation corridors. Encourage compact, mixed-use projects, forming urban villages designed to maximize affordable housing and encourage walking, bicycling and the use of public transit systems,	Compliant. This measure is more applicable as a general development policy than as a project-specific measure; however, the project includes a combined emergency vehicle/pedestrian access that connects the proposed residential project with an approved commercial project to the west. The proximity of the commercial project to the proposed residential uses and the pedestrian connection would encourage walking or bicycling trips between the two developments and creates proximity between jobs and housing. In addition, mitigation measure 6-7 promotes alternative modes of transportation, including bicycling and public transit systems.
Encourage infill, redevelopment, and higher density development, whether in incorporated or unincorporated settings.	Compliant. The project could be considered as infill development since it is the development of vacant land between existing and/or approved development and it is planned growth within the City’s General Plan boundaries.

**Table 6-19
Project Compliance with OPR Greenhouse Gas Emission Reduction Recommendations**

Recommendation and Description	Project Compliance
Encourage new developments to integrate housing, civic and retail amenities (jobs, schools, parks, shopping opportunities) to help reduce VMT resulting from discretionary automobile trips.	<p>Compliant.</p> <p>The project includes a combined emergency vehicle/pedestrian access that connects the proposed residential project with an approved commercial project to the west. The proximity of the commercial project to the proposed residential uses and the pedestrian connection would encourage walking or bicycling trips between the two developments and creates proximity between jobs and housing. In addition, mitigation measure 6-7 promotes alternative modes of transportation, including bicycling and public transit systems.</p>
Apply advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services.	<p>Not applicable.</p> <p>This measure is more applicable as a general development policy rather than as a project-specific measure.</p>
Incorporate features into project design that would accommodate the supply of frequent, reliable and convenient public transit.	<p>Compliant.</p> <p>Mitigation measure 6-7 promotes alternative modes of transportation, including bicycle and public transit systems. In addition, the project includes sidewalks and pedestrian connections that would facilitate access to a major shopping center and a major transportation corridor (Sierra College Boulevard) that are likely to provide access to convenient public transit should it be determined by the local public transit provider that public transit access and facilities are not needed within the residential project.</p>
Implement street improvements that are designed to relieve pressure on a region's most congested roadways and intersections.	<p>Not Applicable.</p> <p>This measure is more applicable as a general development policy rather than as a project-specific measure; however, the project will be subject to payment of the City of Rocklin's traffic impact mitigation (TIM) fee so that the project contributes its fair share to the cost of citywide transportation/circulation improvements</p>
Limit idling time for commercial vehicles, including delivery and construction vehicles.	<p>Compliant.</p> <p>Although the project is not a commercial project, mitigation measure 4.3-1 requires construction vehicles to limit their idling times to five minutes for all diesel-fueled equipment.</p>
Urban Forestry	
Plant trees and vegetation near structures to shade buildings and reduce energy requirements for heating/cooling.	<p>Compliant.</p> <p>Mitigation measure 6-7 requires the project to use tree shading above that required by code, as determined feasible by the City.</p>
Preserve or replace onsite trees (that are removed due to development) as a means of providing carbon storage.	<p>Compliant.</p> <p>The City has adopted an Urban Forest Plan with specific strategies for expanding tree canopy within the City. The</p>

**Table 6-19
Project Compliance with OPR Greenhouse Gas Emission Reduction Recommendations**

Recommendation and Description	Project Compliance
	<p>City’s Urban Forest Plan has shown that development in the City that is consistent with City General Plan policies has resulted in an increase of tree canopy cover from 11% in 1952 to 18% in 2003 (a 63% increase). The Urban Forest Plan provides a framework for the City to maintain its existing tree canopy cover and to increase it to a greater extent as development continues. In addition, Mitigation Measure 4.12-2 would assist with increasing tree cover of the proposed project site.</p>
Green Buildings	
<p>Encourage public and private construction of LEED (Leadership in Energy and Environmental Design) certified (or equivalent) buildings.</p>	<p>Compliant.</p> <p>The construction and operation of all of the proposed buildings on the site would be required to comply with the energy efficiency standards included in Title 24 of the California Code of Regulations. Title 24 identifies specific energy efficiency requirements for building construction and systems operations that are intended to ensure efficient energy usage over the long-term life of the building.</p> <p>In addition, Mitigation Measure 6-7 also requires use of solar, low-emissions, or central or tankless water heaters, increase wall and attic insulation beyond Title 24 requirements, orientation of buildings to take advantage of passive solar heating and natural cooling, energy efficient windows, tree shading above that required by code, install photovoltaic cells, programmable thermostats for all heating and cooling systems, awnings or other shading mechanisms for windows and walkways, utilize day lighting systems such as skylights, light shelves, and interior transom windows, and clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems) and provide a minimum of 10% on-site renewable energy, as determined feasible by the City.</p>
Energy Conservation Policies and Actions	
<p>Recognize and promote energy savings measures beyond Title 24 requirements for residential and commercial projects.</p>	<p>Compliant.</p> <p>The construction and operation of all of the proposed buildings on the site would be required to comply with the energy efficiency standards included in Title 24 of the California Code of Regulations. Title 24 identifies specific energy efficiency requirements for building construction and systems operations that are intended to ensure efficient energy usage over the long-term life of the building.</p> <p>In addition, Mitigation Measure 6-7 also requires use of solar, low-emissions, or central or tankless water heaters, increase wall and attic insulation beyond Title 24 requirements, orientation of buildings to take advantage of passive solar heating and natural cooling, energy efficient windows, tree shading above that required by code, install photovoltaic cells,</p>

**Table 6-19
Project Compliance with OPR Greenhouse Gas Emission Reduction Recommendations**

Recommendation and Description	Project Compliance
	<p>programmable thermostats for all heating and cooling systems, awnings or other shading mechanisms for windows and walkways, utilize day lighting systems such as skylights, light shelves, and interior transom windows, and clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems) and provide a minimum of 10% on-site renewable energy, as determined feasible by the City.</p>
<p>Where feasible, include in new buildings facilities to support the use of low/zero carbon fueled vehicles, such as the charging of electric vehicles from green electricity sources.</p>	<p>Compliant.</p> <p>The evolution of electric vehicle technology is such that electric vehicles are able to be charged on a typical household 110 volt current, which would be available with the proposed residential project.</p>
<p>Educate the public, schools, other jurisdictions, professional associations, business and industry about reducing GHG emissions.</p>	<p>Not Applicable.</p> <p>This measure is more applicable as a general development policy rather than as a project specific measure.</p>
<p>Replace traffic lights, street lights, and other electrical uses to energy efficient bulbs and appliances.</p>	<p>Not Applicable.</p> <p>This measure is applicable as a general development policy rather than as a project-specific measure; however, the City previously initiated a project to replace signal lights with LEDs, and all new traffic signals come standard with LED bulbs. In addition, the City has undertaken numerous efforts to increase energy efficiency in their buildings and facilities, as noted below in the listing of “Citywide Programs and Policies Contributing to Reduction of Greenhouse Gas Emissions.”</p>
<p>Purchase Energy Star equipment and appliances for public agency use.</p>	<p>Not Applicable.</p> <p>This measure is more applicable to the development and operation of public buildings and facilities; however the City has undertaken numerous efforts to increase energy efficiency in their buildings and facilities, as noted below in the listing of “Citywide Programs and Policies Contributing to Reduction of Greenhouse Gas Emissions.”</p>
<p>Incorporate on-site renewable energy production, including installation of photovoltaic cells or other solar options.</p>	<p>Compliant.</p> <p>In addition, Mitigation Measure 6-7 also requires use of solar, low-emissions, or central or tankless water heaters, increase wall and attic insulation beyond Title 24 requirements, orientation of buildings to take advantage of passive solar heating and natural cooling, energy efficient windows, tree shading above that required by code, install photovoltaic cells, programmable thermostats for all heating and cooling systems, awnings or other shading mechanisms for windows and walkways, utilize day lighting systems such as skylights, light shelves, and interior transom windows, and clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems) and</p>

**Table 6-19
Project Compliance with OPR Greenhouse Gas Emission Reduction Recommendations**

Recommendation and Description	Project Compliance
	provide a minimum of 10% on-site renewable energy, as determined feasible by the City.
Execute an Energy Savings Performance Contract with a private entity to retrofit public buildings. This type of contract allows the private entity to fund all energy improvements in exchange for a share of the energy savings over time.	Not Applicable. This measure is applicable to the development and operation of public buildings and facilities; however the City has undertaken numerous efforts to increase energy efficiency in their buildings and facilities, as noted below in the listing of “Citywide Programs and Policies Contributing to Reduction of Greenhouse Gas Emissions.”
Design, build, and operate schools that meet the Collaborative for High Performance Schools (CHPS) best practices.	Not Applicable. This measure is applicable to the local school districts that are responsible for the design, construction and operation of school facilities.
Retrofit municipal water and wastewater management systems with energy efficient motors, pumps, and other equipment, and recover wastewater treatment methane for energy production.	Not Applicable. This measure is applicable to the water and wastewater service providers to the City of Rocklin (the City does not provide its own water or wastewater service).
Convert landfill gas into energy sources for use in fueling vehicles, operating equipment, and heating buildings.	Not Applicable. This measure is applicable to the landfill operator to the City of Rocklin (the City does not provide its own landfill service).
Purchase government vehicles and buses that use alternative fuels or technology, such as electric hybrids, biodiesel and ethanol. Where feasible, require fleet vehicles to be low emission vehicles. Promote the use of these vehicles in the general community.	Compliant. The City’s Fleet Division is taking steps to reduce the City’s carbon foot print by installing diesel oxidation catalysts on its diesel powered vehicles and equipment. The Fleet Division is also purchasing alternative fueled vehicles that will use E85, has implemented procedures to reduce engine idling time, and is considering the introduction of hybrid vehicles into the fleet. In addition, the City is developing a Neighborhood Electric Vehicle (NEV) Transportation Master Plan which identifies roadways that will accommodate NEVs.
Offer government incentives to private businesses developing buildings with energy and water efficient features and recycled materials. The incentives can include expedited plan checks and reduced permit fees.	Not Applicable. This measure is more applicable as a general development policy rather than as a project-specific measure; however, the City is a member of Build-It-Green, a non-profit organization focused on providing education and information to individuals and developers of residential projects on ways they can utilize green technology and products to reduce energy usage, save resources, and build a healthier indoor environment.
Offer rebates and low-interest loans to residents that make energy-savings improvements on their homes.	Not Applicable. This measure is more applicable as a general development policy rather than as a project-specific measure.

**Table 6-19
Project Compliance with OPR Greenhouse Gas Emission Reduction Recommendations**

Recommendation and Description	Project Compliance
Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.	<p>Compliant.</p> <p>The project includes sidewalks and a combined emergency vehicle/pedestrian access that connects the proposed residential project with an approved major shopping center commercial project to the west. The proximity of the commercial project to the proposed residential uses and the pedestrian connection would encourage walking or bicycling trips between the two developments and creates proximity between jobs and housing.</p>
Programs to Reduce Vehicle Miles Traveled	
Offer government employees financial incentives to carpool, use public transportation, or use other modes of travel for daily commutes.	<p>Not Applicable.</p> <p>This measure is more applicable as a general development policy for government employees rather than as a project-specific measure.</p>
Encourage large businesses to develop commute trip reduction plans that encourage employees who commute alone to consider alternative transportation modes.	<p>Not Applicable.</p> <p>This measure is more applicable as a general development policy than as a project-specific measure.</p>
Develop shuttle systems around business district parking garages to reduce congestion and create shorter commutes.	<p>Not Applicable.</p> <p>This measure is more applicable as a general development policy rather than as a project-specific measure.</p>
Create an online ridesharing program that matches potential carpoolers immediately through email.	<p>Not Applicable.</p> <p>This measure is more applicable as a general development policy rather than as a project-specific measure.</p>
Develop a Safe Routes to School program that allows and promotes bicycling and walking to school.	<p>Not Applicable.</p> <p>This measure is more applicable as a general development policy rather than as a project-specific measure; however, the City participates in the Safe Routes to School program and has implemented four improvement projects since 1994.</p>
Programs to Reduce Solid Waste	
Create incentives to increase recycling and reduce generation of solid waste by residential users.	<p>Not Applicable.</p> <p>This measure is more applicable as a general development policy rather than as a project-specific measure; however, the City is an active partner in the Placer County Materials Recovery Facility (MRF) that supports recycling of household and business waste. The MRF diverts over 50% of the solid waste generated within the City from landfill disposal, consistent with the requirements of AB 939.</p>
Implement a Construction and Demolition Waste Recycling Ordinance to reduce the solid waste created by new	Not Applicable.

**Table 6-19
Project Compliance with OPR Greenhouse Gas Emission Reduction Recommendations**

Recommendation and Description	Project Compliance
development.	This measure is more applicable as a general development policy rather than as a project-specific measure; however, the City is an active partner in the Placer County Materials Recovery Facility (MRF) that supports recycling of household and business waste. The MRF diverts over 50% of the solid waste generated within the City from landfill disposal, consistent with the requirements of AB 939.
Add residential/commercial food waste collection to existing greenwaste collection programs.	Not Applicable This measure is more applicable as a general development policy rather than as a project-specific measure.
Source: Summarized from Attachment 3 of June 19, 2008 OPR Technical Advisory on CEQA and Climate Change.	

In addition to the project’s compliance with the applicable CAT strategies and OPR recommendations noted in the above tables, it should be recognized that the City also has existing programs in place, and others that are planned, that reduce and minimize greenhouse gas emissions. The following citywide programs and policies contribute to the reduction of GHG emissions:

- ▶ Participation in Pacific Gas and Electric’s (PG&E) Climate Smart Program – the City agreed to a fixed increase to its monthly PG&E bill to offset the carbon emissions caused by energy used in City facilities.
- ▶ The City passed a resolution supporting the Partnership for Prosperity Clean Technology Initiative to attract clean technology companies.
- ▶ The City is a member of the U.S. Green Building Council, a non-profit organization dedicated to sustainable building design and construction.
- ▶ The City is working towards “Leadership in Energy and Environmental Design” (LEED) certification on its Administration and Police Station buildings, with efforts including changes in cleaning practices, cleaning materials and supplies, energy efficiency and indoor environmental quality.
- ▶ The City is a member of Build-It-Green, a non-profit organization focused on providing education and information to individuals and developers of residential projects on ways they can utilize green technology and products to reduce energy usage, save resources, and build a healthier indoor environment.
- ▶ Training for the City’s Chief Building Official and Building Inspection Services Manager on green building project certifications and the requirements on how to build green. The City’s Chief Building Official is also a member of the steering committee for the region’s Build-It Green Agency Council.
- ▶ The City is participating in implementing a universal residential solar program with neighboring jurisdictions to address residential solar programs, develop a standardized fee, and create consistent information resources on green building practices for use on websites. The City will also be hosting a workshop for permit technicians to educate on green building practices and programs and to provide training.
- ▶ The City constructed solar carports at its police station facility, which generate nearly 40% of the annual electricity required to operate the facility.

- ▶ The City hosted a free, two-hour “Solar Saturday” workshop to provide information and education to residents on residential solar technology, and will be hosting a similar workshop for developers.
- ▶ In 1998, the City’s Public Works Department initiated a project to replace traffic signal lights (incandescent bulbs) with Light Emitting Diodes (LEDs). This project was completed in 2001 and all new traffic signal lights come standard with LED bulbs.
- ▶ In 1998, the City Council approved a plan to reduce water use in city street landscaping by removing turf and replacing it with drought-tolerant plants. The Public Works Department is continuing its program to reduce water use through turf removal/plant replacement, and requiring developers to plant drought-tolerant plants and install drip irrigation along streetscapes in new projects.
- ▶ The City requires development project’s landscape plans to include an automatic irrigation system, and the use of drip irrigation is encouraged. Project landscape plans are also required to be certified by the landscape architect as meeting the requirements of the Water Conservation in Landscaping Act (Government Code Section 68591, et. seq.)
- ▶ The City utilizes untreated water for irrigation purposes in some locations.
- ▶ The City created a centrally-located park-and-ride lot that is separate and apart from the Caltrans park-and-ride facility program.
- ▶ The City is developing a Neighborhood Electric Vehicle (NEV) Transportation Master Plan which identifies roadways that will accommodate NEVs.
- ▶ The City’s Fleet Division is taking steps to reduce the City’s carbon foot print by installing diesel oxidation catalysts on the its diesel powered vehicles and equipment. The Fleet Division is also purchasing alternative fueled vehicles that will use E85, has implemented procedures to reduce engine idling time, and is considering the introduction of hybrid vehicles into the fleet.
- ▶ The City is an active partner in the Placer County Materials Recovery Facility (MRF) that supports recycling of household and business waste. The MRF diverts over 50% of the solid waste generated within the City from landfill disposal, consistent with the requirements of AB 939.
- ▶ The City has adopted an Urban Forest Management Plan with specific strategies for expanding tree canopy within the City. The Plan has shown that development in the City that is consistent with the City’s General Plan policies and tree replacement mitigation requirements has resulted in an increase of tree canopy cover from 11% in 1952 to 18% in 2003 (a 63% increase). The Plan provides a framework for the City to maintain its existing tree canopy cover and to increase it to a greater extent as development continues.
- ▶ Through the development planning process, the City has set aside a significant portion (approximately 19.4%) of city land area as open space and park land. As a part of this effort, the City purchased significantly sized properties that were designated for development and re-classified them as parks and open space.
- ▶ In 1998, the City instituted a voluntary holiday furlough program that allows City employees (except essential service personnel) to have the opportunity to take time off between the Christmas and New Year’s Day holidays. More than 90% of City staff takes advantage of this opportunity, allowing for energy savings by not having to power City facilities.
- ▶ The City is working with the California Energy Commission in the Motherlode Program which allows for replacement of HVAC and lighting equipment that are not energy efficient.

- ▶ The City is incorporating increased indirect lighting into new facility construction projects and encourages employees to reduce energy usage in facilities.
- ▶ The City’s facility maintenance operations use recycled paper products in restrooms and maintenance activities throughout city facilities. In addition, products used for cleaning facilities are “green-seal certified”, meaning that they are environmentally friendly.
- ▶ Some city facilities are utilizing an HVAC energy efficiency management system.
- ▶ Some city facilities utilize sensor-activated faucets, toilets and paper towel dispensers.
- ▶ The City will be implementing preferred parking for carpoolers and alternative fuel vehicles at its Administration building.
- ▶ The City has an Oak Tree Preservation and Mitigation Ordinance
- ▶ The City has a parking lot shade tree requirement as part of its Zoning Ordinance.
- ▶ The City requires electric vehicle recharging stations on appropriate development projects.
- ▶ The City has conducted native oak tree reforestation and restoration projects in city parks, open space, and along creek channels.
- ▶ The City will be implementing an environmental purchasing plan with the objectives of instituting practices that reduce waste by increasing product efficiency and effectiveness, purchasing products that minimize environmental impacts, toxics, pollution, and hazards to worker and community safety to the greatest extent practical, and, when practical, purchasing products that include recycled content, are durable and long-lasting, conserve energy and water, use agricultural fibers and residues, reduce greenhouse gas emissions, use unbleached or chlorine free manufacturing processes, are lead-free and mercury-free, and use wood from sustainable harvested forests.

Mitigation Measure 6-29: Cumulative Climate Change

The proposed project includes the following specific measures which will assist in the reduction of greenhouse gas emissions:

- ▶ Use of an automatic irrigation system and drip irrigation throughout the site to meet the requirements of the Water Conservation in Landscaping Act.
- ▶ The project will meet Title 24 requirements which will reduce the amount of energy used by the residences.

The project applicant shall implement the mitigation measures identified in Section 4.3, Air Quality and Section 6, Cumulative and Growth-Inducing Impacts of this Draft EIR, to reduce GHG emissions. These measures are summarized as follows:

Construction-Generated Emissions

Mitigation Measure 4.3-1 identified in Section 4.3, Air Quality of this Draft EIR addresses short-term construction-generated emissions and includes a listing of individual measures that are intended to reduce and minimize construction-generated emissions of fugitive dust and ozone precursors. Several components of Mitigation Measure 4.3-1 would also help to reduce GHG emissions. Such measures include 1) idling time for all diesel-fueled equipment shall be minimized to five minutes; 2) ARB diesel fuel shall be used for all diesel-powered equipment; and 3) preparation of a plan for Placer County Air Pollution Control District approval that

would demonstrate that heavy-duty off-road vehicles to be used in the construction project will achieve a project-wide fleet average 20 percent NO_x reduction and a 45% particulate matter reduction compared to the most recent ARB fleet average. No additional mitigation for construction-generated GHG emissions is necessary.

Cumulative Operational Emissions

Mitigation Measure 6-7 identified in Section 6, Cumulative and Growth Inducing Impacts of this Draft EIR addresses cumulative operational (regional) emissions and includes a listing of individual measures that are intended to reduce and minimize cumulative operational criteria air pollutant and pressure emissions. Such measures include:

- 1) The City, after consultation with the applicant, shall require that all feasible emission control measures be incorporated into project design and operation. Such measures may include, but are not limited to, the following items:
 - ▶ Provide access to public transit within ¼ mile of the project site, and transit enhancing infrastructure that includes transit shelters, benches, street lighting, route signs and displays, and/or bus turnouts/bulbs.
 - ▶ Provide pedestrian and bicycle enhancing infrastructure that includes wide sidewalks (i.e. at least five feet wide), and bikeways/paths connecting to a bikeway system, minimize pedestrian barriers (e.g., sound walls), and incorporate traffic-calming measures such as traffic circles, crosswalks, and bulb-outs at crosswalks.
 - ▶ Use solar, low-emissions, or central or tankless water heaters, increase wall and attic insulation beyond currently applicable Title 24 requirements, and orient buildings to take advantage of passive solar heating and natural cooling, energy efficient windows (double pane and/or Low-E), and tree shading above that required by code, install photovoltaic cells, programmable thermostats for all heating and cooling systems, awnings or other shading mechanisms for windows and walkways, and utilize day lighting systems such as skylights, light shelves, interior transom windows.
 - ▶ The project shall include clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems) and provide a minimum of 10% on-site renewable energy.
- 2) The project shall implement an off-site mitigation program, coordinated through the PCAPCD, to offset the project's long-term ozone precursor emissions. The project's off-site mitigation program must be approved by PCAPCD. The project's off-site mitigation program provides monetary incentives to sources of air pollutant emissions within the SVAB that are not required by law to reduce their emissions. Therefore, the emission reductions are real, quantifiable and implement provisions of the SIP. The off-site mitigation program reduces emissions within the SVAB that would not otherwise be eliminated.
- 3) In lieu of the applicant implementing their own off-site mitigation program, the applicant can choose to participate in the PCAPCD Off-site Mitigation Program by paying an equivalent amount of money into the program, which would then be used offset emissions as described above. The actual amount of emission reductions needed through the Off-site Mitigation Program would be calculated when the project's average daily emissions have been determined.

Level of Significance after Mitigation

Implementation of City policies and mitigation measures identified above would reduce GHG emissions from construction and operation of the project. It is the City's observation that there is nothing inherent in a residential project that undermines efforts to comply with AB 32 and Executive Order S-3-05. As the preceding discussion demonstrates, the vast majority of GHG emissions associated with the project are attributable to the combustion of fossil fuels, either in motor vehicles or in electricity-generating power plants. The project's GHG emissions

were calculated based on estimated trip generation, trip length, and the energy efficiency of, and sources of electricity for the project, among other project characteristics. The State, it is clear, must make significant strides in changing the make-up of transportation fuels and power plants if it is to achieve compliance with AB 32. There are regulatory efforts underway at the state level related to transportation fuels, vehicle emissions standards, and renewable energy sources, all of which would be expected to have GHG reduction benefits. GHG emissions from cars and light duty trucks are to be addressed at the regional level in California through drafting of Sustainable Communities Strategies. The City of Rocklin, along with the rest of the cities and counties in the Sacramento Area Council of Governments (SACOG) region will have a regional GHG reduction target for passenger cars and light trucks for 2020 and 2035. These targets will be met by establishing development patterns and a corresponding transportation network, along with other transportation measures and policies that would reduce GHG emissions, primarily through reducing vehicle miles traveled. More than 70 percent of the project's operational emissions are associated with the anticipated use of vehicles by project residents. Reducing vehicle use for residential projects depends not just on the project location, land use, and design, but the broader land use and transportation planning context. Any project's emissions will depend on the mix and density of land uses in the project vicinity, the type and design of transportation facilities, and other factors beyond the control of individual proposed projects. State legislation for reducing GHG emissions through reducing vehicle miles traveled establishes a regional context. For many reasons, it is more appropriate for local jurisdictions to consider GHG reduction strategies at the general plan level or regional level, rather than on a project-by-project basis.

The discussion on climate change related impacts in this section quantifies GHG emissions of the project and qualitatively analyzes various project mitigation measures and City policies designed to reduce GHG emissions, to the extent feasible. The implementation of the above stated mitigation measures and compliance with City policies would reduce GHG emissions attributable to the project through vehicle emission reductions, vehicular trip reductions, recycling programs, increases in energy efficiency for buildings and appliances, and decreased water use. With the implementation of these mitigation measures and compliance with City policies, the proposed project would be substantially consistent with the emission reduction strategies contained in the California Climate Action Team's (CAT) Report to the Governor, the emission reduction recommendations contained in the California Governor's Office of Planning and Research (OPR) technical advisory entitled "CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review, and Executive Order S-3-05. Therefore, the City has determined that the project's cumulative contribution to climate change impacts would be considered less than significant.

