

TRAFFIC IMPACT ANALYSIS

ROCKLIN CROSSINGS

ROCKLIN, CALIFORNIA

LSA

October 2010

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Submitted to:

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LSA

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1. INTRODUCTION

This report presents the results of an analysis by LSA Associates, Inc. (LSA) of the traffic impacts associated with the proposed Rocklin Crossings project in the City of Rocklin (City), California. The project proposes the construction of an approximately 543,500-square-foot (sf) commercial/retail center on a 49.53±-acre (ac) site at the southeast corner of Interstate 80 (I-80) and Sierra College Boulevard. The proposed regional shopping center may include two major tenants (currently expected to be a Walmart and a Home Depot store).

This analysis examines the traffic impacts expected to result from the addition of vehicle traffic generated by the proposed project on the existing, existing plus approved projects, and cumulative (2030) traffic conditions at surrounding intersections and roadway segments. The “existing plus approved projects” scenario is used as the “baseline” for purposes of assessing the significance of project-specific impacts.¹ “Approved projects,” in this context, are land use and infrastructure projects that have received all discretionary approvals requiring environmental review, and thus are virtually certain to be built and thereby affect the same transportation facilities that will be affected by the project. The use of this baseline is legally and factually conservative, in that the approach is intended to ensure that the analysis fully accounts for traffic that, though not yet manifested on the “grid” as of the time the City of Rocklin issued the Notice of Preparation for the project, will nevertheless be using the grid by the time the project opens for business. Had LSA not accounted for this reasonably foreseeable traffic, the result could understate the actual impacts of the project. This approach is also consistent with the general principle that environmental analysis in California is concerned with “the effects of projects on the actual environment upon which the proposal will operate.”²

With respect to cumulative impacts, forecast traffic volumes and levels of service (LOS) for 2030 conditions were determined using the City of Rocklin’s most current Travel Demand Model. Potential mitigation measures for facilities significantly impacted by the project are identified in this study.

Consistent with a February 9, 2010, decision of the Sacramento County Superior Court addressing the adequacy of the previous environmental impact report (“EIR”) for the project, which held “that the inconsistency between the EIR’s traffic and economic impacts (urban decay) analyses renders the EIR inadequate as an informational document,” this analysis has been prepared in consultation not only with City staff, but also with CB Richard Ellis (“CBRE”), the consultant that prepared the project’s economic impact and urban decay analysis. As a result, the analysis is consistent with the objectives and methodologies set forth in the City’s General Plan Transportation Element, and has also been prepared in close coordination with CBRE. In turn, CBRE used information generated by LSA in conducting its new economic/urban decay analysis for the project. LSA has also taken care to comply with all applicable provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines. This analysis recommends mitigation measures based on the project’s effects under the existing plus approved projects and cumulative (2030) scenarios.

¹ See Cal. Code Regs., tit. 14, div. 6, ch. 3 (“CEQA Guidelines”), § 15125, subd. (a).

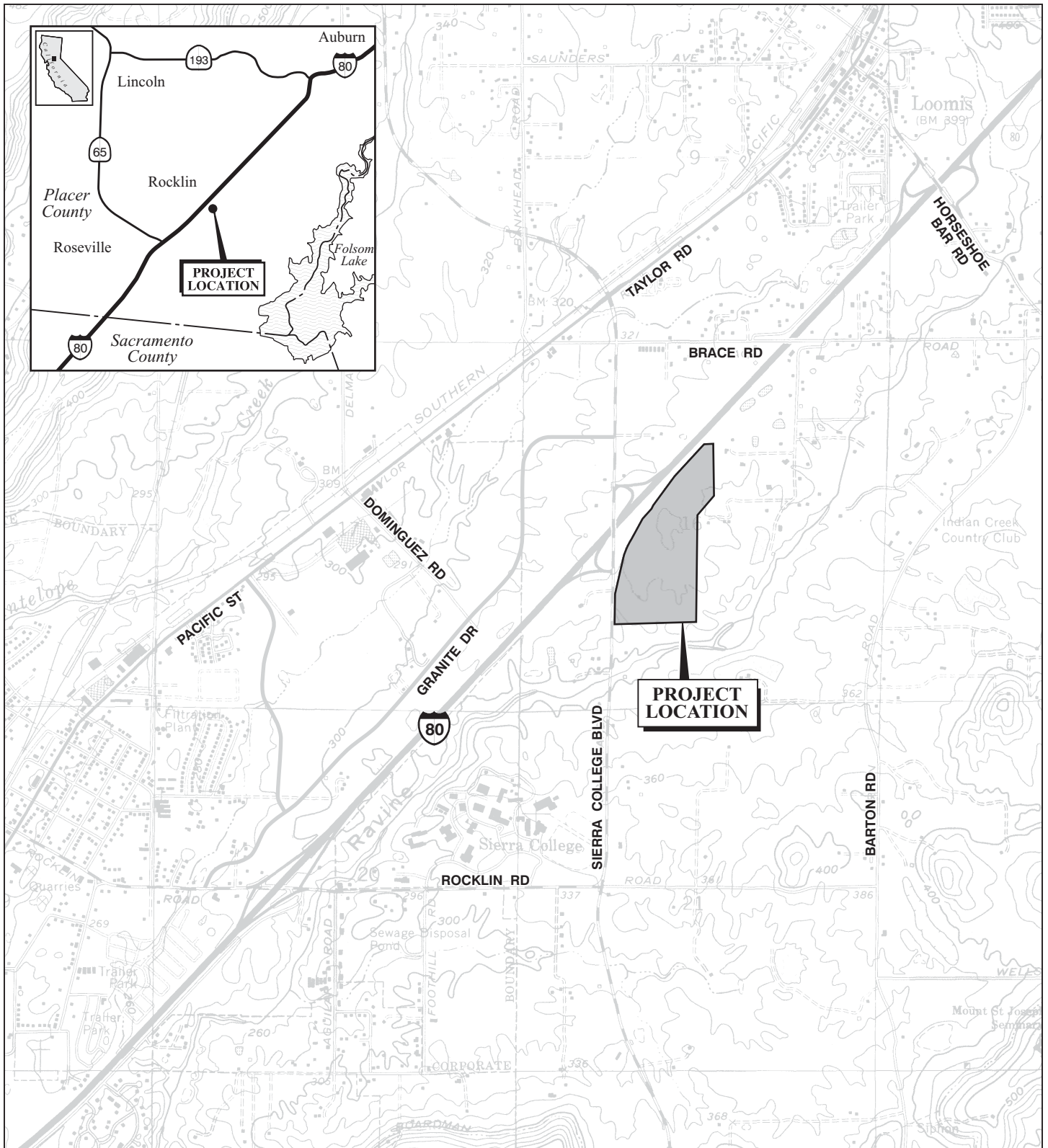
² *Environmental Planning and Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 354.

2. PROJECT DESCRIPTION

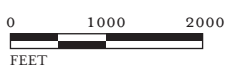
The proposed project is a regional shopping center including two major tenants (presently expected to be a Walmart and a Home Depot store). The proposed project will be built on a 49.53± ac. site at the southeast corner of I-80 and Sierra College Boulevard. The location of the proposed project is shown on Figure 1. The site is currently undeveloped, though it was extensively disturbed by activities related to the recent reconstruction by the City of Rocklin of the interchange at I-80 and Sierra College Boulevard. Up to 543,500 sf of retail/commercial structures may be constructed if, following the completion of new traffic and urban decay analyses, as directed by the Superior Court, the Rocklin City Council chooses to reapprove the project. The proposed Walmart would consist of 206,000 sf of main building area with a 25,353 sf garden center. The Home Depot store would be 106,278 sf with a 34,760 sf garden center. The remaining 171,109 sf would be made up of smaller retail and restaurant-type uses. Traveler-serving uses such as gas stations and a hotel may also be provided. The project site plan is shown on Figure 2.

Although the Sierra College Boulevard/I-80 Interchange Reconstruction project was not part of the proposed project description, the interchange project significantly affects access to Rocklin Crossings. The Sierra College Boulevard/I-80 Interchange reconstruction project included widening the bridge over I-80, reconstruction of the on- and off-ramps, and full widening of Sierra College Boulevard across the northerly portion of the frontage of the Rocklin Crossings project. The Sierra College Boulevard/I-80 Interchange Reconstruction project has already been completed. The main access into Rocklin Crossings has been constructed as part of the Sierra College Boulevard Interchange Reconstruction project and dedicated as a City right-of-way.

Three project access locations to Rocklin Crossings will be provided from Sierra College Boulevard. The northernmost project access would form the east leg of the I-80 eastbound/Sierra College Boulevard ramp. It should be noted that the construction of this signalized access has been completed as part of the Sierra College Boulevard/I-80 Interchange Reconstruction project. The middle access will provide unsignalized right turns into and out of the project only. The southernmost signalized access point will align with the future extension of Dominguez Road over I-80.



LSA



SOURCE: USGS 7.5' Quad - Rocklin, Ca.

FIGURE 1

Rocklin Crossings
Project Location

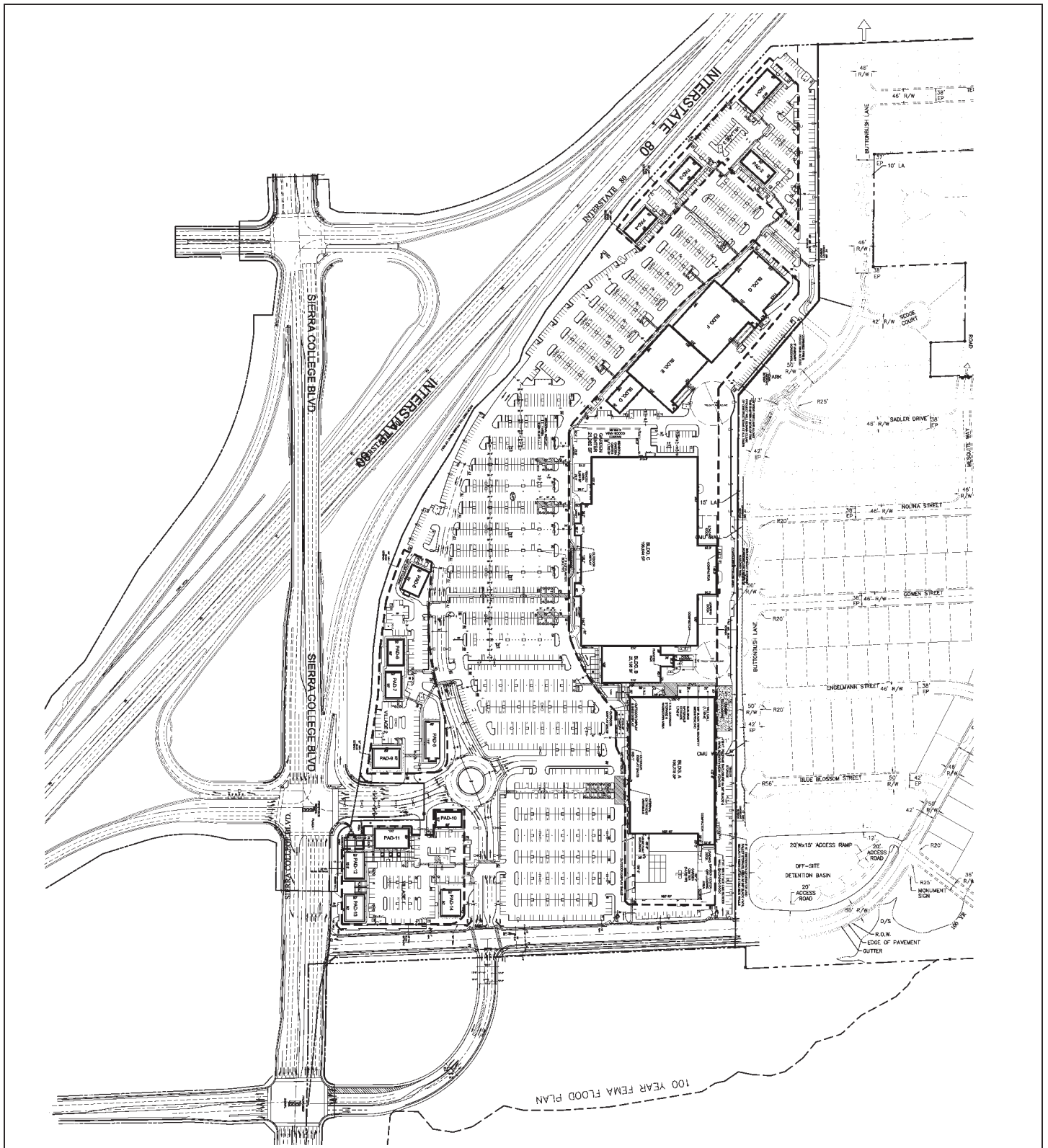


FIGURE 2

LSA



SOURCE: RSC Engineering

I:\DSR330\Site Plan.cdr (9/13/10)

Rocklin Crossings
Site Plan

3. METHODOLOGY

This traffic impact analysis is based on intersection and roadway LOS for the following scenarios during typical weekday and Saturday conditions:

- Existing
- Existing plus Project
- Existing plus Approved Projects (Baseline)
- Existing plus Approved Projects (Baseline) plus Project
- 2030 (Cumulative without Project)
- 2030 (Cumulative plus Project)

Intersection LOS Methodology. Traffix computer software (Version 8.0 R1) was utilized to analyze all study area intersections. The LOS at signalized study area intersections within the City were determined using the Circular 212 “Critical Movement Analysis” (CMA) planning methodology. Highway Capacity Manual (HCM) 2000 methodology was utilized to determine the LOS at all unsignalized study area intersections and California Department of Transportation (Caltrans) controlled freeway interchange intersections. The HCM methodology is used by Caltrans, and the Town of Loomis for analyzing the intersections they control.

The CMA methodology compares the amount of traffic an intersection is able to process (capacity) to the level of traffic during peak hours (volume). The resulting volume-to-capacity (v/c) ratio is expressed in terms of LOS, where LOS A represents free-flow activity and LOS F represents overcapacity operation. The CMA methodology provides a planning-level assessment of the traffic volume at an intersection and is used by many cities and agencies in California for the purposes of traffic impact analysis. Some of the cities and agencies besides Rocklin that utilize the Circular 212 CMA methodology include West Sacramento, Fairfield, Roseville, Union City, San Carlos, the Contra Costa Transportation Authority, and the City/County Associations of Governments of San Mateo County. In addition, a number of agencies throughout the State utilize the Intersection Capacity Utilization (ICU) methodology, which is similar to the Circular 212 CMA methodology but does not take into account the effects of signal phasing on LOS. Utilization of a methodology that calculates the v/c ratio has proven to be an accurate method of disclosing traffic impacts of development projects.

LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, and signal phasing on roadway and intersection operations. Traffix computer software utilizing Circular 212 CMA methodology analyzes each intersection in isolation and does not consider other factors that could affect traffic operations, such as intersection spacing and downstream delay. These factors typically have a minor effect on traffic capacity at an intersection. LOS criteria for signalized intersections are presented below.

LOS Description

- A No approach phase is fully utilized by traffic and no vehicle waits longer than one signal cycle. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
- B This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
- C This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one signal cycle and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
- D This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
- E Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained, no matter how great the demand.
- F This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods due to the congestion. In extreme cases, speed can drop to zero.

The relationship between LOS and the v/c ratio for signalized intersections is as follows:

Level of Service	Volume-to-Capacity Ratio (CMA Methodology)
A	≤ 0.600
B	0.610–0.700
C	0.710–0.800
D	0.810–0.900
E	0.910–1.000
F	> 1.000

CMA = Critical Movement Analysis

Because the CMA methodology does not provide an accurate representation of the LOS of an unsignalized intersection, the HCM methodology has been used to determine intersection LOS at all unsignalized intersections. For the unsignalized HCM methodology, LOS is presented in terms of total intersection delay (at four-way stop intersections) and approach delay of the major and minor streets (at two-way stop intersections) in seconds per vehicle. The relationship of delay and LOS at signalized and unsignalized intersections is summarized below.

Level of Service	Unsignalized Intersection Delay per Vehicle (sec)	Signalized Intersection Delay per Vehicle (sec)
A	≤ 10.0	≤ 10.0
B	> 10.0 and ≤ 15.0	> 10.0 and ≤ 20.0
C	> 15.0 and ≤ 25.0	> 20.0 and ≤ 35.0
D	> 25.0 and ≤ 35.0	> 35.0 and ≤ 55.0
E	> 35.0 and ≤ 50.0	> 55.0 and ≤ 80.0
F	> 50.0	> 80.0

sec = seconds

The HCM methodology has also been used to determine LOS at the Caltrans controlled I-80 ramp intersections with Rocklin Road, Sierra College Boulevard, and Horseshoe Bar Road. As requested by the Town of Loomis and agreed to by the City of Rocklin, all signalized intersections within the Town of Loomis were analyzed using the HCM methodology. The HCM method is also used by Caltrans, and Placer County for intersections they control.

Roadway LOS Methodology. Roadway segment analysis in the project area was also conducted as part of this traffic impact analysis. To identify the project’s impact on the operating conditions of a roadway segment, an LOS ranking scale was used. The LOS is based on peak-hour directional traffic demand in a two-step process. Initially, average daily traffic (ADT) roadway segment threshold capacities, as presented below, are calculated to determine if there are any roadway segments that need to be further analyzed in the peak hour.

Roadway Segment Capacities: Two-Way Average Daily Traffic Volumes						
Two-Lane Collector	Four-Lane Undivided Arterial	Four-Lane Divided Arterial	Four-Lane Restricted-Access Arterial	Six-Lane Divided Arterial	Six-Lane Restricted-Access Arterial	Four-Lane Freeway
15,000	30,000	33,750	36,000	50,525	50,525	80,000

The capacities shown in the above table represent an approximation of the number of vehicles the roadway can comfortably carry on a daily basis before it is considered to be at capacity. If the ADT on a roadway segment exceeds these capacities, then a peak hour direction evaluation is initiated. It is important to note that an ADT capacity must assume several critical characteristics of traffic, including the percentage of daily traffic in the peak hour and the directional split within that peak hour. Actual characteristics of a specific roadway can significantly influence the daily capacity, as described below. To calculate the daily LOS for each roadway segment, the ADT on each segment was divided by the capacity of the segment to determine the daily v/c ratio for each roadway.

The daily capacity, as described above, is a planning-level tool that is generally used to determine the overall cross-sections of roadways within a circulation network. While it can provide a preliminary indication during the planning process of whether the existing or forecast volumes would be accommodated within the existing or future roadway width, it does not provide an accurate representation of the actual operation of the roadway, especially during the peak hours of the day.

This is because traffic along a roadway segment will be highest during the peak commute hours. As a result, if traffic operations are satisfactory during the peak hours, when traffic volumes are highest, the segment will also operate at satisfactory LOS during the remaining off-peak hours of the day. For the roadway segment analysis, the peak-hour directional v/c ratio is the critical LOS threshold. If the peak-hour capacity is exceeded, the segment is considered to be operating at an unsatisfactory LOS. A capacity of 1,650 vehicles per hour per lane (vphpl) was used to evaluate the peak-hour v/c ratio. The capacity (1,650) is an average of the per-lane capacity used in Circular 212 methodology (1,400) and the per-lane capacity used in the HCM methodology (1,900). The v/c ratio was compared to the values in the table below to determine the peak-hour LOS for each roadway segment.

Level of Service	Volume-to-Capacity Ratio
A	≤ 0.600
B	0.610–0.700
C	0.710–0.800
D	0.810–0.900
E	0.910–1.000
F	> 1.000

Freeway LOS Methodology. As prescribed in Chapter 13 (Freeway Concepts) of the HCM, the freeway was divided into segments for the purposes of this analysis. Peak-hour volumes on basic segments were analyzed using the methodology contained in HCM Chapter 23 (Basic Freeway Segments), with calculations performed using the Highway Capacity Software Plus (HCS Plus, Version 5.2). LOS on the freeway mainline is determined by the density of vehicles on the segment. The table below shows the LOS criteria for freeway segments.

Level of Service	Density (pc/mi/ln) for Basic Freeway Segments
A	≤ 11
B	> 11 and ≤ 18
C	> 18 and ≤ 26
D	> 26 and ≤ 35
E	>35 and ≤ 45
F	> 45

pc/mi/ln = passenger cars per mile per lane

LOS Standards. According to the City General Plan Circulation Element, the City considers LOS C the upper limit of satisfactory operations except at intersections (both signalized and unsignalized) and on roadway segments located within 0.5 mile (mi) of direct access to an interstate freeway, where LOS D is considered satisfactory. For intersections within the Town of Loomis in general, LOS C is the upper limit of satisfactory operations regardless of proximity to an interstate freeway. The proposed project does not meet the criteria listed in the Town of Loomis General Plan Circulation Element (2001) which includes the following level of service policy:

In order to minimize congestion, maintain Level of Service C on all roads and intersections within the Town of Loomis. Level of Service D may be allowed in conjunction with development approved within the Town as an exception to this standard, at the intersections of King and Taylor, Horseshoe Bar Road and Taylor, Horseshoe Bar Road and Interstate 80, Sierra College and Brace Road, and Webb and Taylor, when:

1. The deficiency is substantially caused by “through” traffic, which neither begins nor ends in Loomis, and is primarily generated by non-residents; or
2. The deficiency will be temporary (less than three years), and a fully-funded plan is in place to provide the improvements needed to remedy the substandard condition.

The Environmental Impact Report prepared for the Town of Loomis General Plan further clarifies these thresholds by identifying an increase of 5 percent (addition of 0.05) to the v/c ratio for roadway segments as a significant project impact.

Therefore, all intersections within the Town of Loomis must meet the LOS C standard regardless of their proximity to a freeway access location. According to the Placer County General Plan (1994), the County considers LOS C the upper limit of satisfactory operations except at intersections (both signalized and unsignalized) and roadway segments located within 0.5 mi of State highways, where LOS D is considered satisfactory (although the County General Plan allows its Board of Supervisors to allow degradation beyond these levels pursuant to General Plan Policy 3.A.7). Caltrans considers LOS E the upper limit of satisfactory operations for all its freeway mainline facilities.

Significance Criteria. Mitigation is required, if any is feasible, for any intersection, roadway segment, or freeway mainline segment where project traffic causes the intersection, roadway segment, or freeway mainline segment to deteriorate from satisfactory to unsatisfactory operations. The City of Rocklin, Town of Loomis, Placer County and Caltrans do not have an adopted criterion that defines significant impact at an existing deficient intersection, roadway segment, or freeway mainline segment; therefore, criteria were developed in coordination with the City to address this potential condition. Since the intersections are analyzed using two different methodologies (Circular 212 and HCM), slightly different significance criteria must be employed. These significance criteria are discussed below.

Circular 212 Methodology: If an intersection, or roadway segment, is already operating at unsatisfactory LOS, an increase of 5 percent (addition of 0.05) to the v/c ratio would constitute a significant project impact. An increase of 0.05 in the v/c ratio would be considered a measurable worsening of the intersection or roadway operations and therefore would constitute a significant project impact.

The use of this 0.05 threshold is quite common in the region based on the prevailing opinion amongst transportation engineers that 0.05 v/c represents a “measurable worsening” of level of service. There are many factors that affect inputs to the LOS analysis, which in turn result in fluctuations in traffic volumes and levels of service; and many jurisdictions (Sacramento County, City of Sacramento, Rancho Cordova, etc.) have determined that use of a threshold that is less than the one used by the

City of Rocklin is not appropriate for defining a significant impact for locations that are already congested.

Given that traffic volumes can typically fluctuate by 10% or more from day to day, the recognition that a significant impact would occur when the volume-to-capacity ratio increases by 5% (or 0.05) is reasonable, because such a change would typically represent less than half of the normal daily (weekday) fluctuation in traffic volumes. This degree of change also represents a threshold that would be noticeable to the average driver. Thus, an increase of 0.05 in the v/c ratio is significant, as it reflects what would be considered a measurable worsening of the intersection or roadway operations and therefore would constitute a significant project impact. In other words, regardless of whether the existing LOS is D, E, or F, unless there is an increase of at least five percent, the increase would generally go unnoticed, and therefore would not be significant.

Moreover, application of the 0.05 increase to the v/c ratio actually results in an increasing sensitivity to increased traffic volumes as the LOS degrades (i.e., as the LOS conditions worsen, the 0.05 v/c threshold is triggered by smaller percentage increases in traffic volume). To illustrate this point, assume that the capacity at an intersection is 100 vehicles. If the project adds 5 vehicles, the v/c ratio would increase by 0.05 and meet the threshold. As the congestion level increases (i.e. as the number of vehicles through the intersection approaches or exceeds the intersection capacity), however, the same 5 vehicles equate to descending percentages (6.2% (for a v/c ratio of 0.81 increasing to 0.86) to 4.1% (for a v/c ratio of 1.21 increasing to 1.26) of allowable increases in traffic volume before an impact is triggered (see the table below). Thus, the same 5% (addition of 0.05 to the v/c ratio) criterion is appropriate for the full range of conditions exceeding the basic level of service criteria, because the 0.05 threshold does not equate to a fixed percentage increase in traffic triggering an impact at each LOS condition. Rather, when the 0.05 increase in v/c ratio is applied to the v/c ratio at any LOS condition, the percentage of additional traffic necessary to trigger an impact decreases as congestion levels increase and LOS conditions degrade.

Significance Threshold	V/C without Project	V/C with Project	Percent Project traffic at intersection that would trigger impact
0.05 (5%)	0.81	0.86	6.2%
0.05 (5%)	0.91	0.96	5.5%
0.05 (5%)	1.01	1.06	4.95%
0.05 (5%)	1.11	1.16	4.5%
0.05 (5%)	1.21	1.26	4.13%

HCM Methodology: The HCM methodology calculates the average delay experienced by a vehicle at an intersection, which is then used to determine the LOS at that location. The determination of LOS using the HCM methodology does not rely on the volume-to-capacity ratio at the intersection, as is used with the Circular 212 Methodology. Hence, for an intersection that is analyzed using the HCM methodology and that is already operating at unsatisfactory LOS, the significance criteria of 0.05 increase in v/c would not be applicable.

For intersections that are analyzed using HCM methodology, the LOS is calculated based on the average vehicle delay. The City does not have an established threshold of significance expressed in

terms of delay for intersections that are already operating at unsatisfactory LOS. For that reason, a threshold of 5 percent increase in traffic volume, which is similar to the threshold for the intersections analyzed using Circular 212 methodology, was applied to the intersections analyzed using HCM methodology. Therefore, if an unsignalized or signalized intersection that is analyzed using HCM methodology is already operating at unsatisfactory LOS D (LOS E within 0.5 mi of freeway access), then the addition of more than 5 percent of the total traffic at the intersection would also be considered a significant project impact.

The significance criteria used for intersections and roadway segments in the Town of Loomis are consistent with the criteria used in previous traffic studies, including the *Rocklin Commons Traffic Study*, which reflected input from Brian Fragio of the Town of Loomis staff. As directed by the City of Rocklin, LSA has previously applied the same significance criteria to the Town of Loomis intersections and roadway segments as applied in the City of Rocklin¹. In recent trial court proceeding resulting from the challenge by Loomis to the City's use of this threshold, the court indicated no problem with the City's approach, despite questions raised by Loomis. The City has therefore determined that it continues to be permissible to use this approach.

Similar to the criteria used for intersections and roadway segments analyzed using HCM, for freeway mainline, mitigation is required, if any is feasible, if project traffic causes a freeway segment to deteriorate from satisfactory to unsatisfactory operating conditions. If a freeway segment is already operating at unsatisfactory LOS, then the addition of more than 5 percent of the total traffic on the freeway segment would also be considered a significant project impact.

Study Area. The study area was developed in consultation with the City and was based on several considerations, such as recent projects in the vicinity, professional judgment, and public input on the Notice of Preparation. LSA also coordinated with CBRE, which had identified the primary and secondary market areas for the "big box" components of the project based on its economic analysis, thus providing insights as to the likely origins of most of the single purpose shopping trips associated with the big box components. Although some project-related trips will originate beyond the study area, the numbers of such trips are quite minimal measured in terms of the percentage of trips on affected roadways attributable to the project. Consistent with standard engineering practice and professional judgment, the existence of such minimal amounts of traffic in those areas/facilities was not enough to justify including particular areas/facilities within the study area, though the underlying travel demand models, being regional in scale, do account for such trips. Of the 21 study area intersections, 7 are located within 0.5 mile of direct access to an interstate freeway, while the remaining 14 intersections are outside the 0.5 mile criterion. LOS will be analyzed at the following study area intersections for the a.m., p.m., and Saturday peak hours for each development scenario. City of Rocklin intersections within 0.5 mile of a freeway access location (where the LOS D standard would apply) are noted with an asterisk (*). As indicated above, all intersections within the Town of Loomis or located in Placer County have an LOS C standard. The jurisdictions of intersections located outside the City of Rocklin are indicated in parentheses after the intersection name:

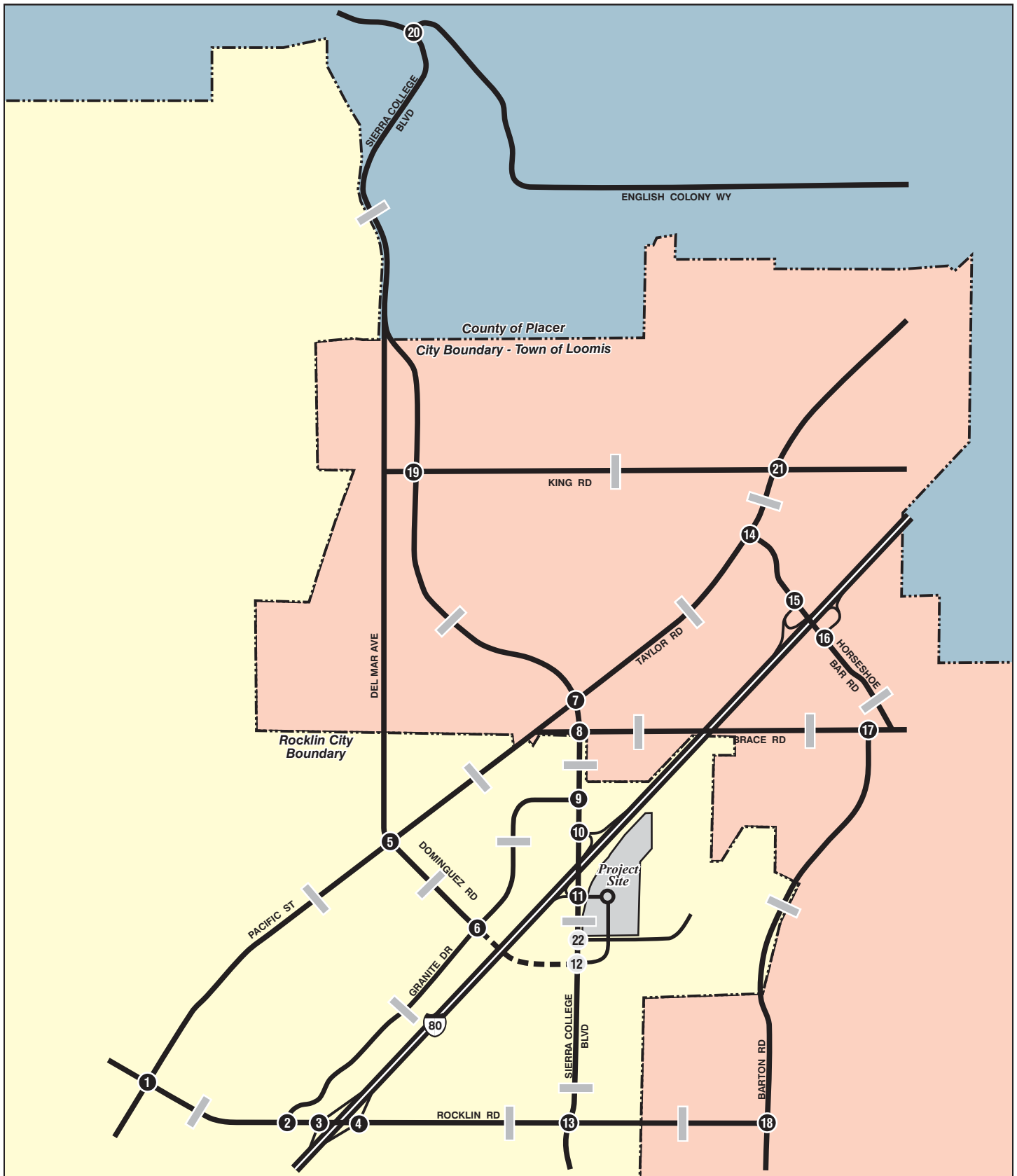
¹ October 30, 2008 Declaration of Les Card of LSA Associates, Inc. regarding December 12, 2006 personal communication with Brian Fragio, Town of Loomis City Engineer/Public Works Direct clarifying the significance criteria that should be applied to intersections that currently operate in excess of Loomis's LOS C threshold

- Pacific Street/Rocklin Road
- Granite Drive/Rocklin Road*
- I-80 westbound ramp/Rocklin Road*
- I-80 eastbound ramp/Rocklin Road*
- Dominguez Road (Del Mar Avenue)/Pacific Street
- Granite Drive/Dominguez Road
- Sierra College Boulevard/Taylor Road (Loomis)
- Sierra College Boulevard/Brace Road (Loomis)
- Sierra College Boulevard/Granite Drive*
- Sierra College Boulevard/I-80 westbound ramp*
- Sierra College Boulevard/I-80 eastbound ramp*
- Sierra College Boulevard/Dominguez Road* (future intersection)
- Sierra College Boulevard/Rocklin Road
- Taylor Road/Horseshoe Bar Road (Loomis)
- Horseshoe Bar Road/I-80 westbound ramp (Loomis)
- Horseshoe Bar Road/I-80 eastbound ramp (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)

The following roadway segments were included in the study area. City of Rocklin roadway segments located within 0.5 mile of direct access to an interstate freeway, where LOS D is considered satisfactory, are noted with an asterisk (*). The location of the study area intersections and study area roadway segments are illustrated on Figure 3.

- Taylor Road between King Road and Horseshoe Bar Road (Loomis)
- Taylor Road between Horseshoe Bar Road and Sierra College Boulevard (Loomis)
- Pacific Street between Sierra College Boulevard and Dominguez Road
- Pacific Street between Dominguez Road and Rocklin Road
- Rocklin Road between Pacific Street and Granite Drive*
- Rocklin Road between I-80 and Sierra College Boulevard*
- Rocklin Road between Sierra College Boulevard and Barton Road (Loomis)
- Barton Road between Rocklin Road and Brace Road (Loomis)

- Horseshoe Bar Road between I-80 and Brace Road (Loomis)
- Brace Road between I-80 and Barton Road (Loomis)
- Brace Road between I-80 and Sierra College Boulevard (Loomis)
- Sierra College Boulevard between English Colony Way and King Road (Placer County)
- Sierra College Boulevard between King Road and Taylor Road (Loomis)
- Sierra College Boulevard between Taylor Road and I-80*
- Sierra College Boulevard between I-80 and Dominguez Road (future intersection)*
- Sierra College Boulevard between Dominguez Road (future intersection) and Rocklin Road
- Granite Drive between Dominguez Road and Sierra College Boulevard
- Granite Drive between Dominguez Road and Rocklin Road
- Dominguez Road between Taylor Road and Granite Drive
- King Road between Sierra College Boulevard and Taylor Road (Loomis)



LSA



SCHEMATIC - NOT TO SCALE

LEGEND

- 1** - Study Area Intersection
- 12** - Future Intersection
- - Study Area Roadway Segment
- - -** - Future Roadway

FIGURE 3

Rocklin Crossings
Study Intersections and Roadway Segments

4. EXISTING CONDITIONS

4.A. Roadway Network

The existing intersection geometrics and traffic control at study area intersections are illustrated on Figure 4. The roadway that will provide access to the project is described below.

- **Sierra College Boulevard.** Sierra College Boulevard is a north-south roadway that forms the eastern boundary of the project site. This roadway is classified as an Arterial with an ultimate six-lane cross-section in the City's General Plan Circulation Element. Sierra College Boulevard is designated as a Truck Route by the City. Within the study area, Sierra College Boulevard is a two-lane roadway north of Rocklin Road and a four-lane roadway immediately south of Rocklin Road. The roadway segment (near the project access) from Granite Drive to just south of the I-80 eastbound ramps is widened to three lanes in the northbound direction and two lanes in the southbound direction. Primary access to the project will be provided via three locations on Sierra College Boulevard.

Other roads in the vicinity of the project are described below:

- **Granite Drive.** Granite Drive is a four-lane southwest-northeast roadway located west of I-80. Granite Drive is classified as an Arterial in the City General Plan Circulation Element. Granite Drive runs from Rocklin Road in the south and terminates at Sierra College Boulevard just north of the project site. Granite Drive is classified as a Truck Route from Dominguez Road to Sierra College Boulevard.
- **I-80.** I-80 is an interstate highway providing interregional access in the vicinity of the project. Throughout the study area, I-80 generally travels in a southwest-northeast direction. Interchanges along I-80 near the project site are provided at Rocklin Road, Sierra College Boulevard, and Horseshoe Bar Road. Direct access to the project site will be provided from the I-80 eastbound ramps at Sierra College Boulevard. I-80 provides three travel lanes in each direction north of State Route 65 (SR-65) and four travel lanes in each direction south of SR-65.
- **State Route 65.** SR-65 provides regional access in the vicinity of the project. SR-65 runs generally northwest from I-80 and joins State Route 70 (SR-70) near the Town of Marysville. Near the I-80 connector, SR-65 is a four-lane expressway with interchanges at Galleria Boulevard/Stanford Ranch Road, Pleasant Grove Boulevard, Blue Oaks Boulevard/Washington Boulevard.
- **Pacific Street.** Pacific Street is a two-lane roadway located east of Granite Drive, a four-lane roadway from Rocklin Road to Sierra Meadows Drive, and a two-lane roadway north of Sierra Meadows Drive. Pacific Street is classified as an Arterial in the City General Plan Circulation Element and is classified as a Truck Route by the City. This roadway provides travel through the entire City limits. Pacific Street becomes Taylor Road in all jurisdictions other than Rocklin.
- **Rocklin Road.** Rocklin Road is an east-west roadway located south of the project site. West of Sierra College Boulevard, Rocklin Road is a four-lane roadway. Immediately east of Sierra College Boulevard, there are one westbound and two eastbound travel lanes. Farther east, Rocklin Road becomes a two-lane roadway and terminates at Barton Road.

- **Dominguez Road.** Dominguez Road is classified as a Collector roadway on the City's General Plan. North of Pacific Street, Dominguez Road becomes Del Mar Avenue. Dominguez Road/Del Mar Avenue is currently a two-lane undivided roadway. Currently, Dominguez Road terminates at Granite Drive west of I-80. Dominguez Road is planned to be extended across I-80 (just an overcrossing) to Sierra College Boulevard to form a fourth leg at the intersection of Sierra College Boulevard/Southern Project Boundary. The Dominguez Road extension is included in the City's Traffic Impact Fee and Capital Improvement Program (CIP).
- **Brace Road.** Brace Road is a two-lane east-west roadway located north of the project site. This roadway is located within the Town of Loomis.
- **Horseshoe Bar Road.** This roadway is located within the Town of Loomis and provides access to I-80. Horseshoe Bar Road is a two-lane roadway running in a northwest-southeast direction and is located north of the project site.

As shown in Figure 4, the intersection of Sierra College Boulevard/English Colony Way has a shared through/right-turn lane in the northbound direction, an exclusive left-turn lane, and a through lane in the southbound direction, and an exclusive left-turn lane and an exclusive right-turn lane in the westbound direction. It should be noted that even though two lanes (left turn and right turn) are not striped along the westbound approach, it currently functions as two lanes. The westbound approach is approximately 30 feet (ft) wide at the intersection and more than 19 ft wide for a distance of 60 ft east of the stop line. Due to the wide approach, two vehicles can be accommodated side-by-side. Hence, the intersection was analyzed with an exclusive left-turn lane and an exclusive right-turn lane in the westbound direction. Additionally, since the left turning volume along westbound approach is very low (1 a.m. and 3 p.m.), it is less likely to form long queues (vehicles waiting to turn left onto southbound Sierra College Boulevard) and block the right turning vehicles.

4.B. Existing Traffic Volumes

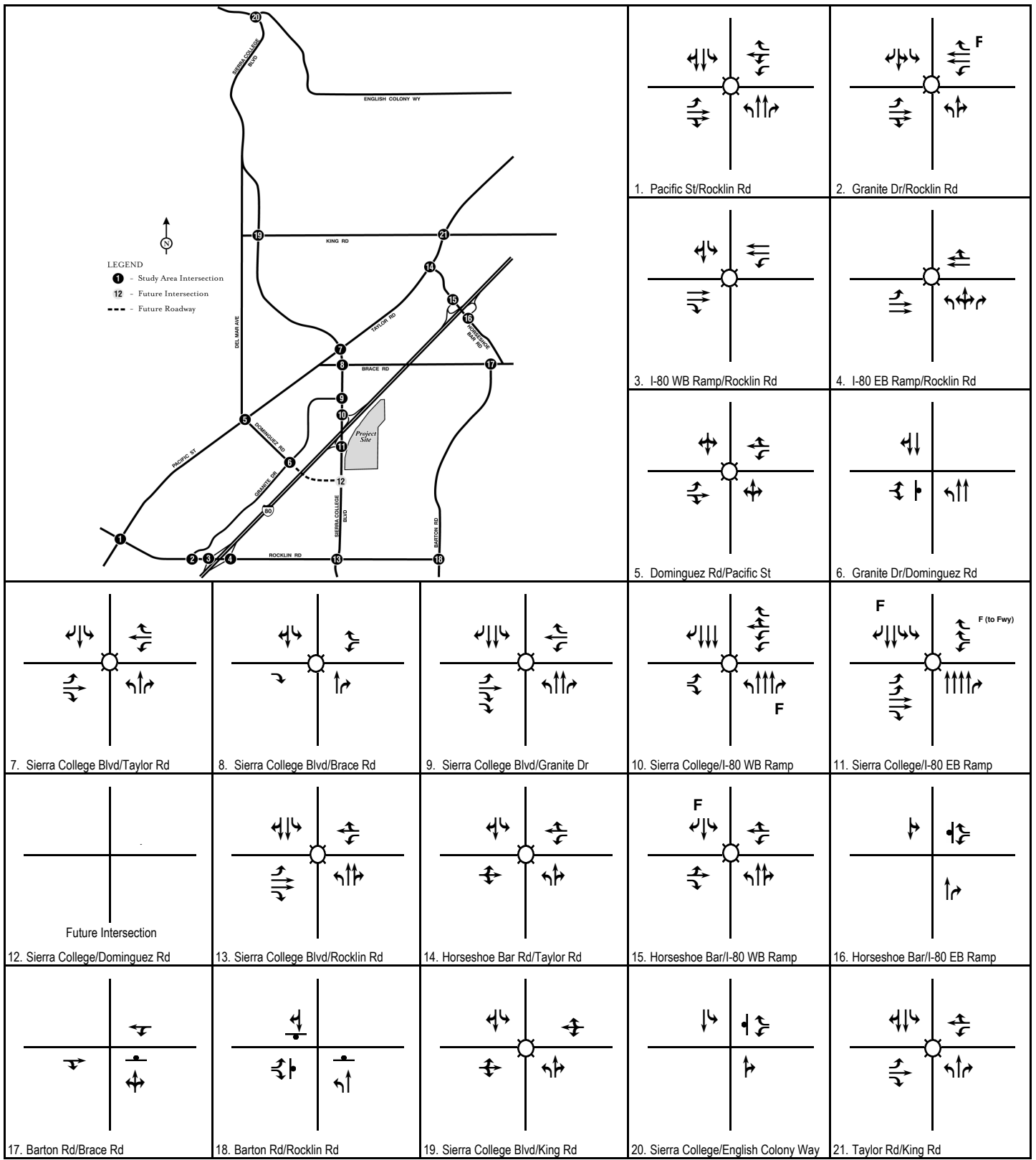
Despite the fact that the Sacramento Superior Court's ruling (discussed in the Introduction) said nothing about the need for the City to provide updated traffic counts, as part of its efforts to achieve a greater level of consistency between the traffic study for the project and the economic study/urban decay analysis, the City instructed LSA to obtain new traffic counts in order to utilize the most current and best available data to determine the traffic impacts of the project. Thus, just as CBRE conducted a new economic study reflecting current and anticipated economic conditions, LSA took new traffic counts. Existing traffic counts at the 20 study area intersections (the intersection of Sierra College Boulevard/Dominguez Road is a future intersection and does not exist yet) were collected in May 2010 for the a.m. (7:00 a.m. to 9:00 a.m.), p.m. (4:00 p.m. to 6:00 p.m.), and Saturday midday (11:00 a.m. to 1:00 p.m.) peak hours. These counts were taken during a non-holiday (excluding summer and winter breaks) period when schools were in session and therefore include the traffic generated by Sierra College and all schools in the study area. The daily counts collected in May 2010 are lower than the daily counts collected in 2006 at a majority of the study area locations. For the weekday peak hours, a majority of the locations have lower counts in 2010. On Saturday, however, a majority of the locations have moderately higher volumes in 2010. These changes are not surprising, recognizing that reduced economic activity sometimes translates into reduced traffic (due, among other things, to fewer commuters on the road). The existing a.m. and p.m. peak-hour and Saturday peak-hour traffic volumes are illustrated on Figures 5 and 6, respectively, and are available in Appendix A.

4.C. Existing Levels of Service

LOS at study area intersections and roadway segments were calculated for the existing conditions and are summarized in Tables A and B. The existing LOS worksheets are provided in Appendix B.

As shown in Table A, all study area intersections are operating at satisfactory LOS in the existing condition.

Roadway segments were analyzed using the two step process explained in the methodology section of this report. First, the segments were reviewed using generalized daily capacities; and, as shown in Table B, most of the study area roadway segments are forecast to operate within their generalized daily roadway capacities in the existing condition except for three segments. Next, a detailed directional peak-hour roadway segment analysis was prepared for these three segments and is shown in Table B2. In the a.m., p.m., and Saturday midday peak hours, those three roadway segments will operate with satisfactory v/c ratios. Because the roadway segments will operate with satisfactory v/c ratios during the peak hours of roadway traffic, they are not considered deficient.



LSA

Legend

○ Signal

⊙ Stop Sign

F Free Right Turn

FIGURE 4

Rocklin Crossings
Existing Geometrics and Traffic Control

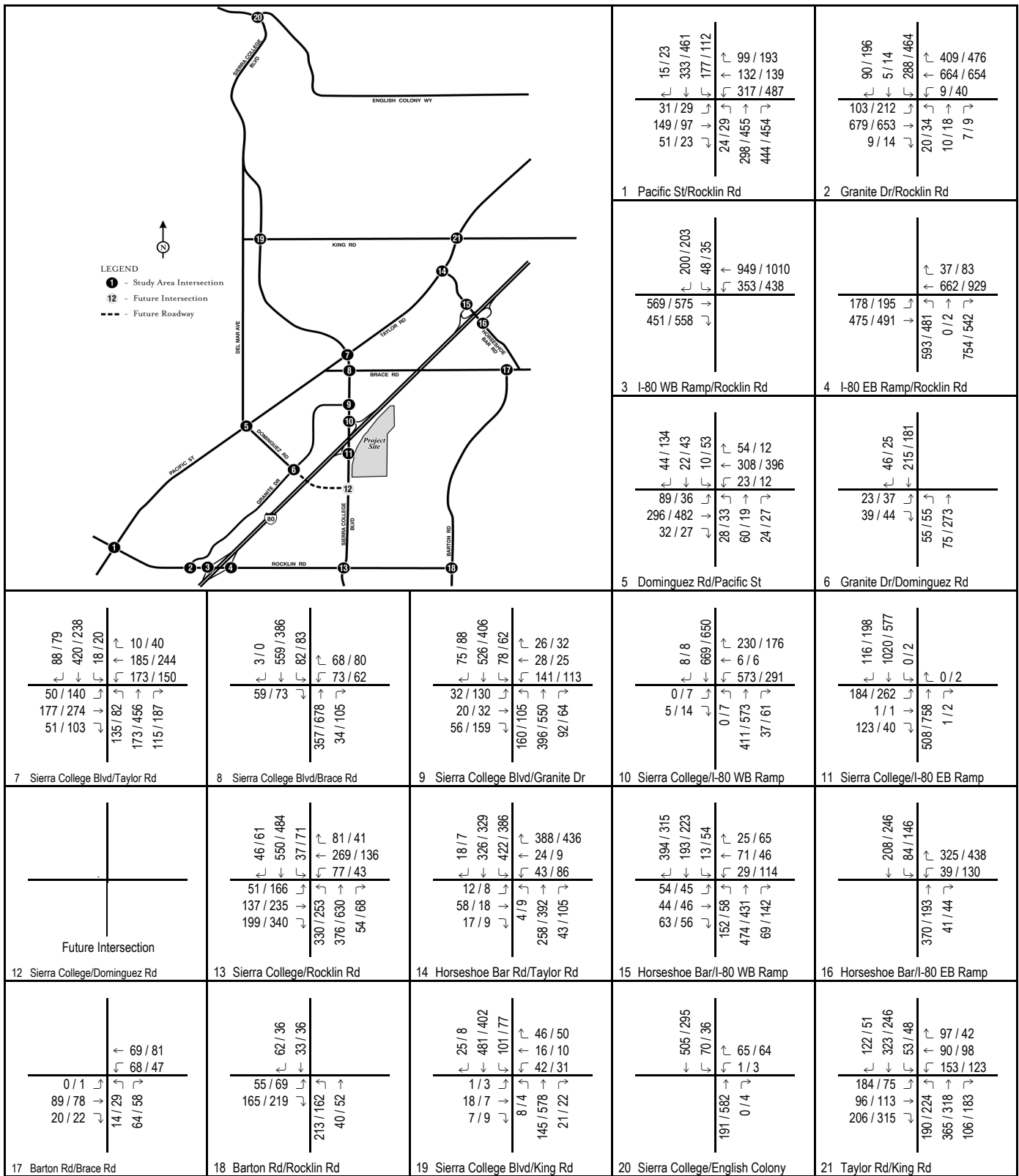


FIGURE 5

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings
Existing Peak Hour Traffic Volumes

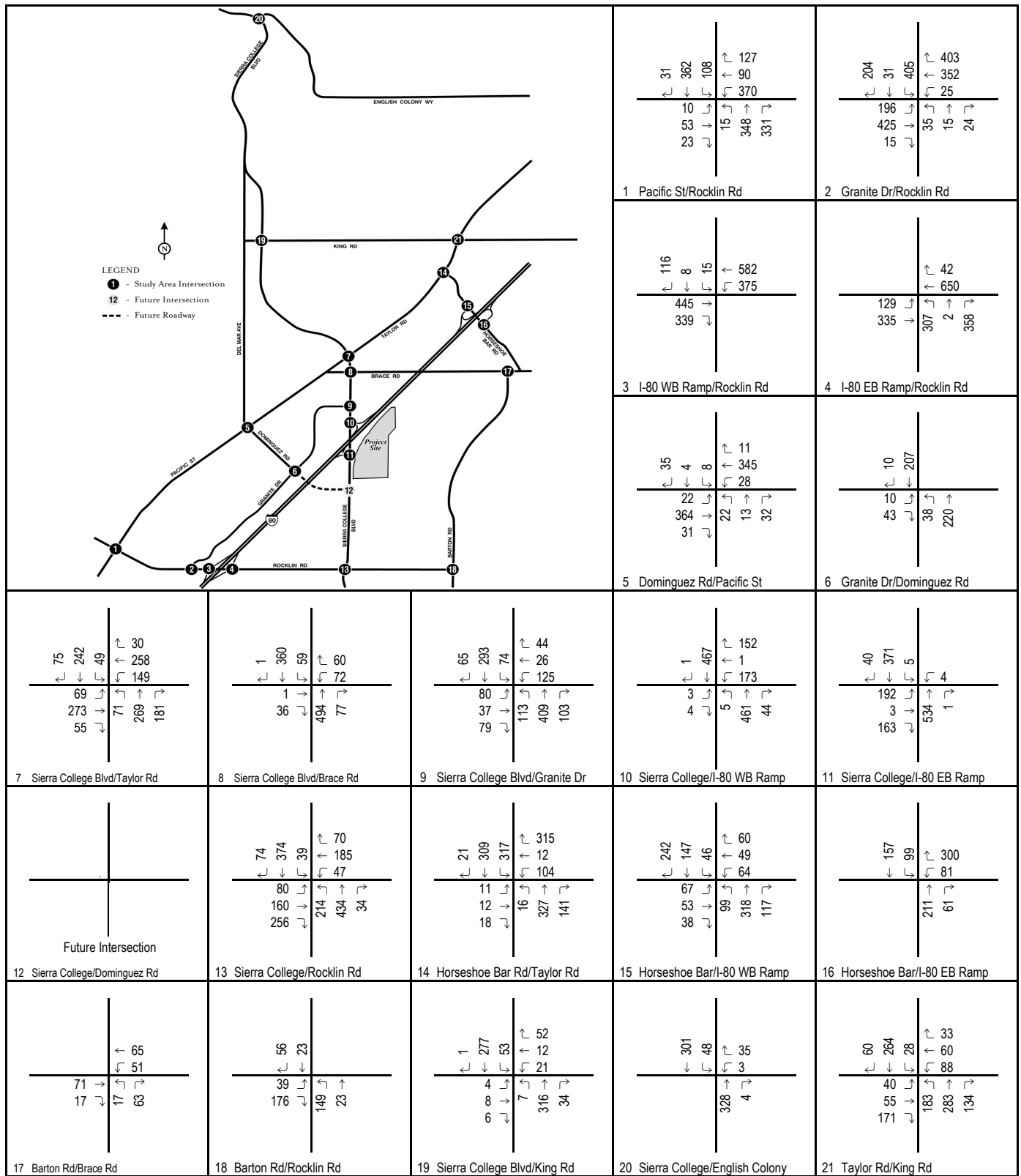


FIGURE 6

Rocklin Crossings
Existing Saturday Peak Hour Traffic Volumes

Table A: Existing Peak Hour Intersection Level of Service Summary

Intersection	Existing 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	0.699	B	0.701	C	0.528	A
2 Rocklin Road/Granite Drive	0.448	A	0.607	B	0.472	A
3 Rocklin Road/I-80 Westbound Ramps	19.1 sec	B	18.8 sec	B	18.7 sec	B
4 Rocklin Road/I-80 Eastbound Ramps	25.4 sec	C	24.6 sec	C	22.0 sec	C
5 Dominguez Road/Pacific Street ¹	0.385	A	0.483	A	0.337	A
6 Dominguez Road/Granite Drive* ¹	11.3 sec	B	11.5 sec	B	9.9 sec	A
7 Sierra College Boulevard/Taylor Road ¹ (Loomis)	28.6 sec	C	28.2 sec	C	28.5 sec	C
8 Sierra College Boulevard/Brace Road ¹ (Loomis)	19.1 sec	B	12.9 sec	B	12.1 sec	B
9 Sierra College Boulevard/Granite Drive	0.433	A	0.391	A	0.325	A
10 Sierra College Boulevard/I-80 Westbound Ramps	16.1 sec	B	9.7 sec	A	8.6 sec	A
11 Sierra College Boulevard/I-80 Eastbound Ramps	7.3 sec	A	6.9 sec	A	8.1 sec	A
12 Sierra College Boulevard/Dominguez Road	-	-	-	-	-	-
13 Sierra College Boulevard/Rocklin Road ¹	0.748	C	0.661	B	0.562	A
14 Taylor Road/Horseshoe Bar Road ¹ (Loomis)	25.8 sec	C	18.6 sec	B	17.6 sec	B
15 Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	18.5 sec	B	19.4 sec	B	21.7 sec	C
16 Horseshoe Bar Road/I-80 Eastbound Ramps* ¹ (Loomis)	16.8 sec	C	16.9 sec	C	13.4 sec	B
17 Barton Road/Brace Road* ¹ (Loomis)	9.8 sec	A	9.7 sec	A	9.5 sec	A
18 Barton Road/Rocklin Road* ¹ (Loomis)	9.9 sec	A	9.7 sec	A	9.0 sec	A
19 Sierra College Boulevard/King Road ¹ (Loomis)	15.5 sec	B	11.2 sec	B	13.6 sec	B
20 Sierra College Boulevard/English Colony Way* ¹ (Placer County)	9.8 sec	A	13.8 sec	B	10.8 sec	B
21 Taylor Road/King Road ¹ (Loomis)	33.0 sec	C	30.0 sec	C	27.8 sec	C

Notes:

ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.

* Indicates unsignalized intersection

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

Exceeds level of service criteria

Table B: Existing Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	Weekday			Saturday		
				Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	16,184	1.08	F	11,797	0.79	C
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	9,541	0.64	B	9,179	0.61	B
	Sierra College Boulevard and City Limits ¹ (Loomis)	Two-lane Collector	15,000	10,182	0.68	B	8,535	0.57	A
Pacific Street	City Limits and Dominguez Road ¹	Two-lane Collector	15,000	10,182	0.68	B	8,535	0.57	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	12,347	0.41	A	10,015	0.33	A
Rocklin Road	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	17,056	0.57	A	12,963	0.43	A
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	14,795	0.49	A	11,787	0.39	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	6,228	0.42	A	5,029	0.34	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	1,755	0.12	A	1,456	0.10	A
Horseshoe Bar Road	I-80 and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	7,194	0.48	A	6,327	0.42	A
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	2,397	0.16	A	1,867	0.12	A
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	2,757	0.18	A	2,523	0.17	A
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Two-lane Collector	15,000	9,861	0.66	B	8,215	0.55	A
	King Road and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	9,618	0.64	B	8,288	0.55	A
	Taylor Road and I-80	Two-lane Collector	15,000	16,150	1.08	F	13,510	0.90	E
	I-80 and Dominguez Road ²	Four-lane Undivided Arterial	30,000	17,320	0.58	A	12,682	0.42	A
	Dominguez Road ² and Rocklin Road ¹	Two-lane Collector	15,000	17,467	1.16	F	12,716	0.85	D
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	7,462	0.25	A	5,973	0.20	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	5,547	0.18	A	4,668	0.16	A
Dominguez Road	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	1,958	0.13	A	737	0.05	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	2,980	0.20	A	2,501	0.17	A

Notes:

¹ LOS C required for these segments. LOS D acceptable for all other segments.² Proposed location of the future extension of Dominguez Road.
 Exceeds level of service criteria

Table B2: Existing Peak Hour Roadway Segment Level of Service Summary

Roadway	Segment	Capacity	Existing		
			Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)				
	A.M. Peak Hour Northbound	1,650	660	0.40	A
	A.M. Peak Hour Southbound	1,650	724	0.44	A
	P.M Peak Hour Northbound	1,650	781	0.47	A
	P.M Peak Hour Southbound	1,650	703	0.43	A
	Saturday Peak Hour Northbound	1,650	627	0.38	A
	Saturday Peak Hour Southbound	1,650	585	0.35	A
Sierra College Boulevard	Taylor Rd and I-80				
	A.M. Peak Hour Northbound	1,650	423	0.26	A
	A.M. Peak Hour Southbound	1,650	685	0.42	A
	P.M Peak Hour Northbound	1,650	748	0.45	A
	P.M Peak Hour Southbound	1,650	539	0.33	A
	Saturday Peak Hour Northbound	1,650	552	0.33	A
	Saturday Peak Hour Southbound	1,650	450	0.27	A
Sierra College Boulevard	Dominguez Rd and Rocklin Rd				
	A.M. Peak Hour Northbound	1,650	508	0.31	A
	A.M. Peak Hour Southbound	1,650	633	0.38	A
	P.M Peak Hour Northbound	1,650	837	0.51	A
	P.M Peak Hour Southbound	1,650	616	0.37	A
	Saturday Peak Hour Northbound	1,650	584	0.35	A
	Saturday Peak Hour Southbound	1,650	487	0.30	A

5. PROJECT TRIP GENERATION AND DISTRIBUTION

The proposed project is a regional shopping center with approximately 543,500 sf of retail/commercial uses, including two major tenants (presently expected to be a Walmart and a Home Depot store). The generation and distribution of trips associated with the proposed project are discussed below.

5.A. Project Trip Generation

Trip generation for the Rocklin Crossings project is calculated based on rates contained in the Institute of Transportation Engineers' (ITE) *Trip Generation, 8th Edition*, which is a standard reference used by jurisdictions throughout the country for estimating the trip generation potential of proposed developments. The previous traffic analysis used trip generation rates from an ITE Journal article to develop the trip generation for the project. The new edition (8th Edition) of the ITE Trip Generation Manual (not available for the previous study) is now the best available information regarding the trip generation rates and hence was used to develop the trip generation for the proposed project. The Crossings project site was divided into three land use categories for developing the trip generation. Trips were generated for each of these categories individually and then added to calculate the total trip generation for the proposed development.

The proposed Walmart is most appropriately classified as a Free-Standing Discount Superstore (ITE Land Use 813). Trip generation calculations were based on the square footage of the enclosed building (including the garden center). As noted in the description of the land use code for Free-Standing Discount Superstore, garden centers contained within the principal outside faces of the exterior building walls were included in the gross square floor area reported. Outdoor or fenced-in areas outside the principal faces of the exterior building walls were excluded. Since the proposed Walmart has both an indoor and an outdoor garden center, in this study, the square footage for the garden center (both indoor and outdoor) was conservatively included in the trip generation calculations for the Free-Standing Discount Superstore. The trip generation is shown in Table C.

The proposed Home Depot store trip generation was calculated using ITE rates for a Home Improvement Store (ITE Land Use 862). The ITE rates for the Home Improvement Store were calculated based on several surveys/studies that counted the number of vehicles arriving at the Home Improvement Stores all over the country. The traffic volume measured at each site was divided by the square footage of each store (excluding the outside garden center) to calculate the trip generation rate. This square footage used in the calculation of the trip rate did not include the area of the outdoor garden center. Hence this trip generation rate is only applied to the square footage of the proposed Home Improvement Store excluding the area of the outdoor garden center. This does not mean that the trips associated with the outdoor garden center are not counted. In fact it means that the trips generated by the outdoor garden center are included in the trip rate. Since the Home Depot garden center will be outside the principal exterior building walls, which is consistent with the description of the land use code for Home Improvement Store, the vehicle trip generation shown in Table C for the Home Improvement Store designation is based on the floor area without the garden center.

The remaining uses within the project site were classified as Shopping Center uses (ITE Land Use 820). The trip generation for the Shopping Center land use was calculated in two steps. First, the

fitted-curve equations¹ were applied to the total square footage of the proposed buildings within the project site (including the area occupied by the Walmart and Home Depot store) to develop a gross trip generation. The gross trips generated were then divided by the total size (square footage) of the proposed buildings within the project site to estimate the average trip generation rate. This rate was then applied to the remaining portion (excluding Walmart and Home Depot) of the project site, as indicated in Table C. This procedure properly reflects the internal trip-generating characteristics of a regional shopping center. Based on the ITE fitted-curve equations, as the size of the shopping center increases, the trips per square foot decrease. This reflects the concept of increasing multi-store activity as a shopping center increases in size. To apply this consideration to this project, the Shopping Center trip rate per square foot was calculated combining the total square footage of the site (including Walmart and Home Depot) and then applying it to the remaining Shopping Center square footage.

Pass-By Trips. Some of the trips generated by a retail shopping center such as the proposed project would be pass-by trips, or trips whose primary destination is not the shopping center. These would include trips such as a work-to-home trip that stops at a retail center on the way home from work. These trips would not be new trips generated by the project; rather, they are trips that are already on the roadway network that would make a stop at the proposed shopping center. ITE's *Trip Generation Handbook*² (2004) provides estimates of pass-by trip percentages for various types of land uses. The *Trip Generation Handbook* includes weekday p.m. and some Saturday information. The Handbook documents an average weekday p.m. pass-by reduction rate for a Free-Standing Discount Superstore (Land Use 813) of 28 percent. No weekday a.m., daily (ADT) and Saturday pass-by data were available for a Free-Standing Discount Superstore. The average weekday p.m. pass-by reduction for a Home Improvement Superstore (Land Use 862) was 48 percent. No weekday a.m., daily (ADT) and Saturday pass-by data was available for the Home Improvement Superstore classification. The average weekday p.m. and Saturday pass-by reduction for a Shopping Center (Land Use 820) is 34 and 26 percent, respectively. No weekday a.m. pass-by data was available for the Shopping Center designation. The unavailability of weekday a.m. pass-by data does not mean that there are no pass-by trips in the a.m. peak hour; it just means they have not been counted.

In consideration of the above information, an average pass-by reduction factor of 20 percent was selected, rather than the higher (permitted) rate ranging from 26 to 48%. This approach was taken to be conservative so as to allow the City to have confidence that no impacts would be understated. Due to the absence of data (in the ITE *Trip Generation Handbook*) for the a.m. peak hour and the ADT, a conservative estimate of 10 percent average pass-by trip reduction rate is proposed for the a.m. peak hour and the average daily trips generated by the entire retail center. Although the use of these conservative rates might well understate the actual percentage of pass-by trips the center will experience and thereby also overstate the number of "new trips" attributable to the project, the City and LSA opted to use the conservative rates anyway in order to avoid any possibility of understating project impacts.

¹ Curve fitting is the process of constructing a curve, or mathematical function, that has the best fit to a series of data points, which in this case is trip generation data for shopping centers. The mathematical function is known as the fitted curve equation.

² Note that the Trip Generation Handbook is different than a Trip Generation Manual that was previously referenced in the report.

As indicated in Table C, the project is forecast to generate 19,604 daily trips, 583 a.m. peak-hour trips, 1,546 p.m. peak-hour trips, and 2,064 Saturday midday peak-hour trips. Even though these project trips are used in the analysis for all the intersections and roadway segments, the project driveways were analyzed using “gross trips,” as shown in Table C.

5.B. Project Trip Distribution

Project trips were distributed throughout the study area using information from the City’s current travel demand model, and with the benefit of information obtained from CBRE with respect to the primary and secondary market areas for the “big box” components of the project. Using the travel demand model, a process known as “select zone assignment” is applied to distribute and assign trips from a specific zone (the project) through the highway network to an origin. The travel demand model goes through several iterations to develop the most likely distribution pattern that takes into account several factors such as the shortest distance between origin and destination, availability of capacity, type of uses, etc. before assigning the project trips. The select zone assignment process does *not* recognize specific brands of retail (Walmart, Home Depot, etc.) but instead applies generic land uses such as retail, industrial or office. This is the superior methodology, as over time, brands come and go and move while use categories offer greater stability. A manual trip distribution process would be required to consider specific retail brands. However, a manual process would not reflect the migration of such businesses over time nor would it be compatible with other travel demand model applications (such as 2030 cumulative conditions). Therefore, it is an inferior approach. Businesses migrate from one location to another with no changes to zoning or general plan land uses. It is the zoning and general plan land uses that are reflected in the travel demand model data base and therefore represent a more accurate and sustained approach toward analysis of resultant trip making characteristics. The travel demand model will have additional trips toward the Roseville area that must be considered (deliveries, employees and pass-by trips) but are not considered in the economic study. These trips will be evident on I-80 into Sacramento County and SR-65 into Lincoln. Therefore, the travel demand model represents the most accurate means of analysis and draws more sustainable conclusions, particularly over extended periods of time. Hence the select zone model assignment for the proposed project was used to determine the trip distribution.

The regional trip distribution percentages in the vicinity of the project site are illustrated on Figure 7a and the trip distribution percentages south of Rocklin Road/I-80 interchange are illustrated on Figure 7b. A detailed breakdown of the trip distribution within the study area (Figure 7a) and south of Rocklin Road/I-80 interchange (Figure 7b) is presented such that trip distribution percentages to specific regions/cities can be easily determined. It should also be noted that the land uses in the travel demand model are generic commercial/retail uses and do not necessarily reflect the characteristics of specific retailers (Walmart, Home Depot, etc.). This is appropriate because retailers on any given site can change over time.

As seen in Figure 7a, project traffic is distributed as follows; - 14 percent of project traffic will travel northeast along I-80 -35 percent of project traffic will travel southwest along I-80. 22 percent will travel north along Sierra College Boulevard, 19 percent will travel south along Sierra College Boulevard. 3 percent will travel southwest along Granite Drive, 7 percent will have destinations within close proximity to the project site.

As discussed earlier (Figure 7a), approximately 35 percent of project traffic will travel southwest along I-80 before Rocklin Road. Approximately 8 percent of the traffic (out of 35 percent) will exit at the Rocklin Road interchange (Figure 7b), 6 percent will travel west, and 2 percent will travel east along Rocklin Road. As seen on Figure 7b, the remaining 27 percent of the traffic will travel southwest along I-80 up to SR-65. At that point, 9 percent will travel west on SR-65 and the remaining 18 percent will travel southwest along I-80 beyond SR-65. Of the 18 percent of project traffic continuing southwest along I-80, 12 percent will continue to travel southwest beyond the County line into Sacramento County (10% via I-80 and 2% via Riverside Avenue).

As seen in Figure 7b, approximately 10 percent of project trips most likely end or originate in the City of Roseville (shown in squares). Of the 10 percent, approximately 5 percent of the project trips use SR-65 (4 percent exit at Pleasant Grove Boulevard and 1 percent exits Galleria Boulevard) while 5 percent of the project trips use I-80 (4 percent exit at Eureka Road, and 1 percent exit Douglas Boulevard). Due to the dynamic nature of the travel demand model, it is likely that there could be some trips that travel through Roseville and actually end in Rocklin (e.g. trips exiting Pleasant Grove Boulevard from SR-65 and traveling north) and, on the other hand, some trips that travel through Rocklin may actually end in Roseville (e.g. trips traveling south along Sierra College Boulevard). Even after considering these factors, it can be said that approximately 10 percent of the trips will end in Roseville. In order to explain the trip distribution in simple terms the above discussion only uses the outbound trips. It should be noted that the inbound trips will originate from the areas where the outbound trips end and follow the same paths (in reverse direction) to get to the project.

The trip distribution for the proposed Crossings project was reviewed and compared to the market area assessment included in the *Economic Impact and Urban Decay Analysis* prepared by CB Richard Ellis (CBRE). Although the economic study did not include Roseville within either the primary or the secondary market area, as discussed on page 16 of the CBRE study, it nevertheless assumes that approximately 10 percent of shoppers will originate from Roseville. As that study explains, most of these Roseville residents would not be making single purpose shopping trips with Rocklin Crossings as their destination, as there are opportunities to shop at both Walmart and Home Depot at closer locations. Rather, these Roseville residents shopping at Rocklin Crossings would likely do so in connection with “pass-by trips,” meaning that these persons would stop in at the center on their way to other destinations.

The economic study focuses on shoppers only and is not intended to represent an analysis of trips, traffic, traffic generation or similar concepts. It does not take into account the employee, delivery, and pass-by traffic. While the traffic study must consider all traffic categories (shoppers, employees, deliveries, etc.) coming to the project, the economic study only considered shoppers and economic activity. As a result of these differences in assumptions and methodology the distribution patterns of project-related traffic should not be identical when comparing the two studies or working within each discipline. Additional divergences can be explained by the manner in which each study has chosen to be conservative, consistent with CEQA principles. Just as this traffic study uses a very conservative pass-by percentage of 20 percent (even though a substantially higher percentage would be supported by the technical literature), we are informed that the economic study assumes a greater percentage of shoppers from the primary and secondary market areas than might be supportable based on the economic literature, as CBRE has explained to LSA and further discussed in its report to the City. The authors of the respective studies have opted to err on the side of caution as a way of avoiding understating environmental impacts (either traffic impacts or potential urban decay impacts). In short,

in order to be true to the best available information used in their respective disciplines, and in order to be conservative in different respects so as to avoid understating impacts, the authors chose not to seek a perfect convergence of assumptions for its own sake. In short, it is our professional judgment that it would be inappropriate and would not serve the interest of the public or the City of Rocklin to take steps to artificially coordinate the data to provide for identical assumptions between these two very different studies. Nevertheless, this traffic study, like CBRE's new economic study, reflects close coordination and ongoing conversations between the two experts (in our respective fields), and each study has been prepared with intellectual integrity based on the best information available and best professional judgment and analysis of each firm and in consideration of the work of the other. The project trips at each intersection are illustrated on Figures 8A and 8B.

Table C: Rocklin Crossings Trip Generation

Land Use	Size	Units	ADT	A.M. Peak Hour			P.M. Peak Hour			Saturday		
				In	Out	Total	In	Out	Total	In	Out	Total
Discount Superstore	231.353	TSF										
Trip Rate ¹			53.13	0.94	0.73	1.67	2.26	2.35	4.61	2.82	2.82	5.64
Trip Generation			12,292	216	170	386	523	544	1,067	652	652	1,305
Home Improvement Store ²	141.038	TSF										
Trip Rate ³			29.80	0.72	0.54	1.26	1.14	1.23	2.37	2.30	2.21	4.51
Trip Generation			3,065	74	56	130	117	127	244	237	227	464
Shopping Center	171.109	TSF										
Trip Rate ^{4,5}			37.55	0.47	0.30	0.77	1.78	1.86	3.64	2.46	2.27	4.74
Trip Generation			6,425	80	51	132	305	318	623	422	389	811
Total Site Gross Trips			21,782	371	277	648	945	988	1,933	1,311	1,269	2,580
Total Site Pass-by Trips ⁶			-2,178	-37	-28	-65	-189	-198	-387	-262	-254	-516
Total Site Trip Generation	543.500	TSF	19,604	333	249	583	756	791	1,546	1,048	1,015	2,064

Note: volumes shown rounded to nearest integer

¹ Trip generation based on rates for Land Use 813 - Free-Standing Discount Superstore from *ITE Trip Generation (8th Edition)*

² Trip generation of Home Improvement Store does not include garden center (34,760 sq. ft) and vestibules (3,411 sq. ft) per description of land use in *ITE Trip Generation (8th Edition)*.

³ Trip generation based on rates for Land Use 862 - Home Improvement Superstore from *ITE Trip Generation (8th Edition)*

⁴ Average rate derived from total site generation (543.5 TSF) using fitted curve equations for Land Use 820 - Shopping Center from *ITE Trip Generation (8th Edition)*

⁵ ADT: $\ln(T) = 0.65 \ln(X) + 5.83$; AM: $\ln(T) = 0.59 \ln(X) + 2.32$; PM: $\ln(T) = 0.67 \ln(X) + 3.37$; Saturday: $\ln(T) = 0.65 \ln(X) + 3.76$

⁶ Pass-by trip percentages from *ITE Trip Generation Handbook, 2004* vary between 23% and 48% for various land uses. However, a 10% estimate for daily trips and the a.m. peak hour and 20% estimate for the p.m. and Saturday midday peak hours have been used as a conservative average pass-by trip reduction rate for the entire retail center.

TSF = Thousand square feet

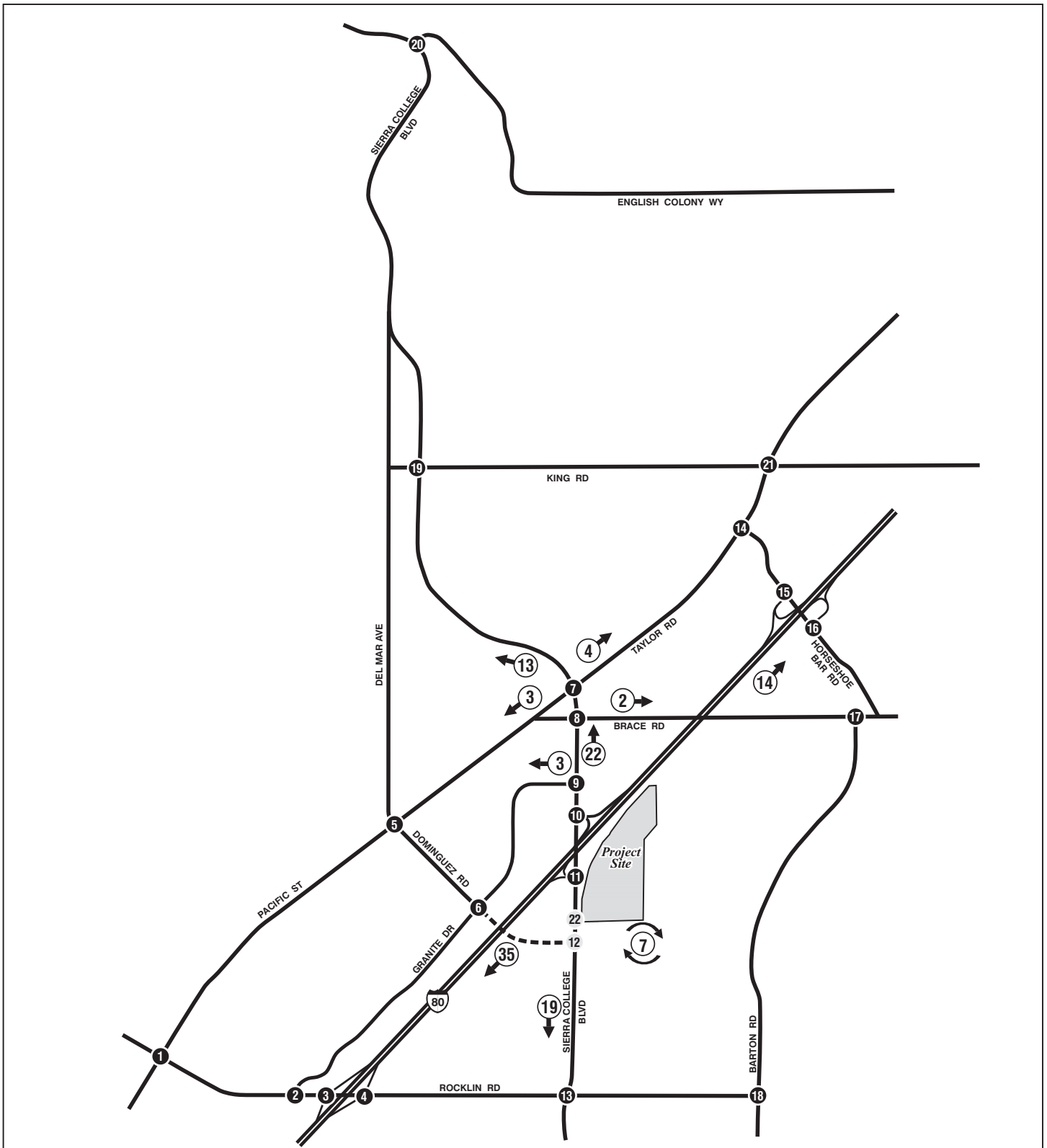


FIGURE 7A

LSA

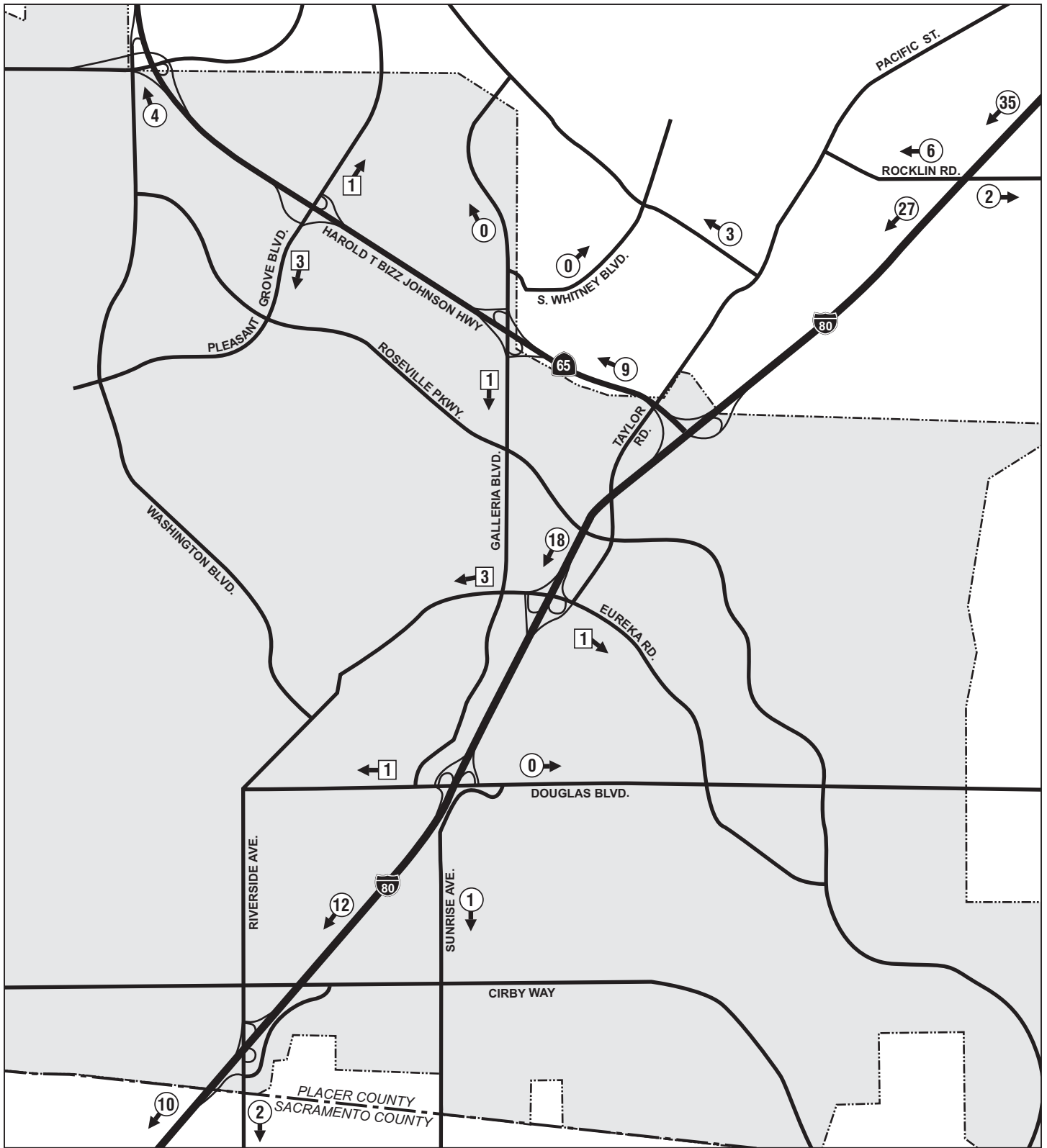


LEGEND

- ① - Study Area Intersection
- ② - Future Intersection
- - Future Roadway
- ⑤ - Regional Project Trip Distribution Percentage
- ⑦ - Local Project Trip Distribution Percentage

NO SCALE

Rocklin Crossings
Trip Distribution



LSA

LEGEND

- ← (5) - Trip Distribution Percentage
- - City of Roseville Boundary
- ← [5] - Trip Distribution Percentage to Roseville: 10% Total

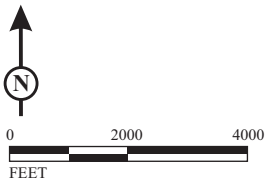


FIGURE 7B

Rocklin Crossings
Trip Distribution South of Rocklin Road

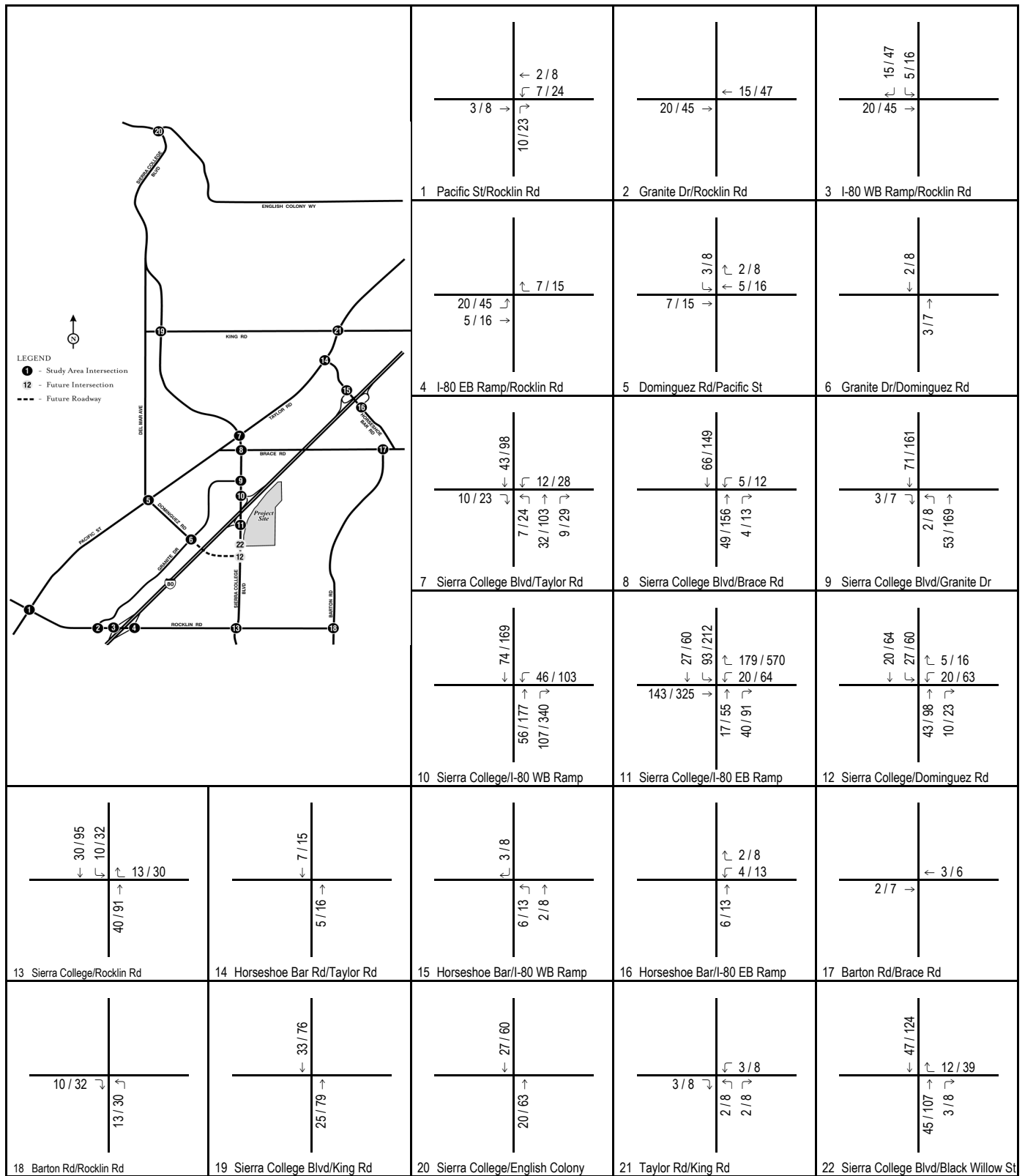


FIGURE 8A

123 / 456 AM / PM Peak Hour Volume

The peak hour volume does not include pass-by trips at the project driveways.

Rocklin Crossings

Weekday Peak Hour Project Trips

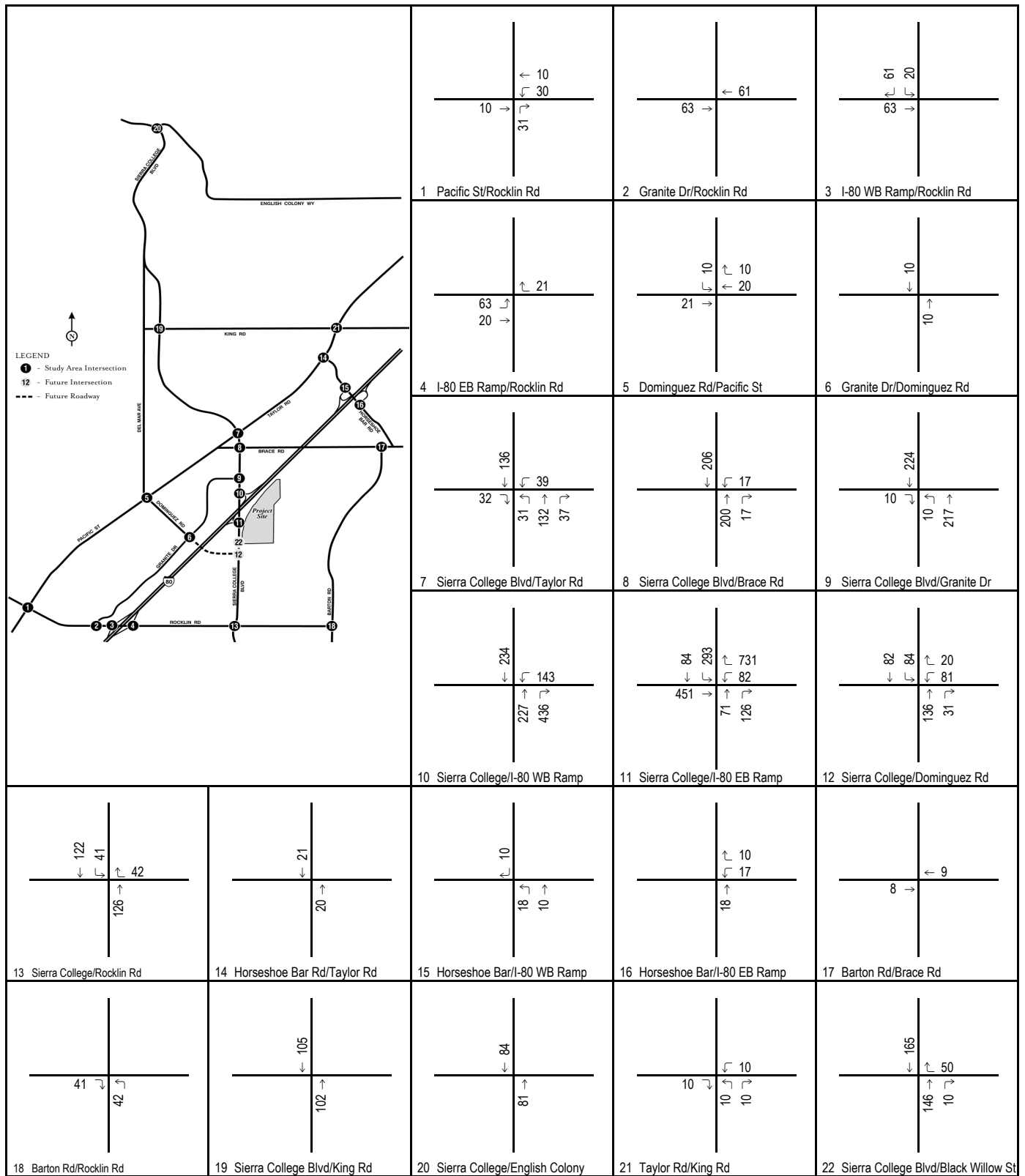


FIGURE 8B

Rocklin Crossings

The peak hour volume does not include pass-by trips at the project driveways.

Saturday Peak Hour Project Trips

6. EXISTING PLUS PROJECT

Traffic volumes generated by the proposed project were added to the existing traffic volumes and LOS were calculated for the existing plus project scenario. Construction of the project will follow construction of other previously approved projects in the study area; therefore, the existing plus project conditions are not the real-world physical condition (where the project will be constructed before other approved projects in the region) that the project will affect. However, an existing plus project condition has nevertheless been analyzed for disclosure purposes. The existing plus project weekday and Saturday peak-hour traffic volumes are illustrated on Figures 9 and 10. The LOS for study area intersections and roadway segments in the existing plus project scenario are shown in Tables D and E. The existing plus project LOS worksheets are provided in Appendix C.

As shown in Table D, all study area intersections are forecast to operate at satisfactory LOS in the existing plus project scenario.

For roadway segments, Tables E and F show that application of the two-step procedure, first evaluating daily volume to capacity and then, if necessary, peak hour directional volume to capacity, results in no project impacts. While three roadway segments exceeded daily capacities, the peak hour directional analysis confirmed that these three segments will operate at acceptable LOS.

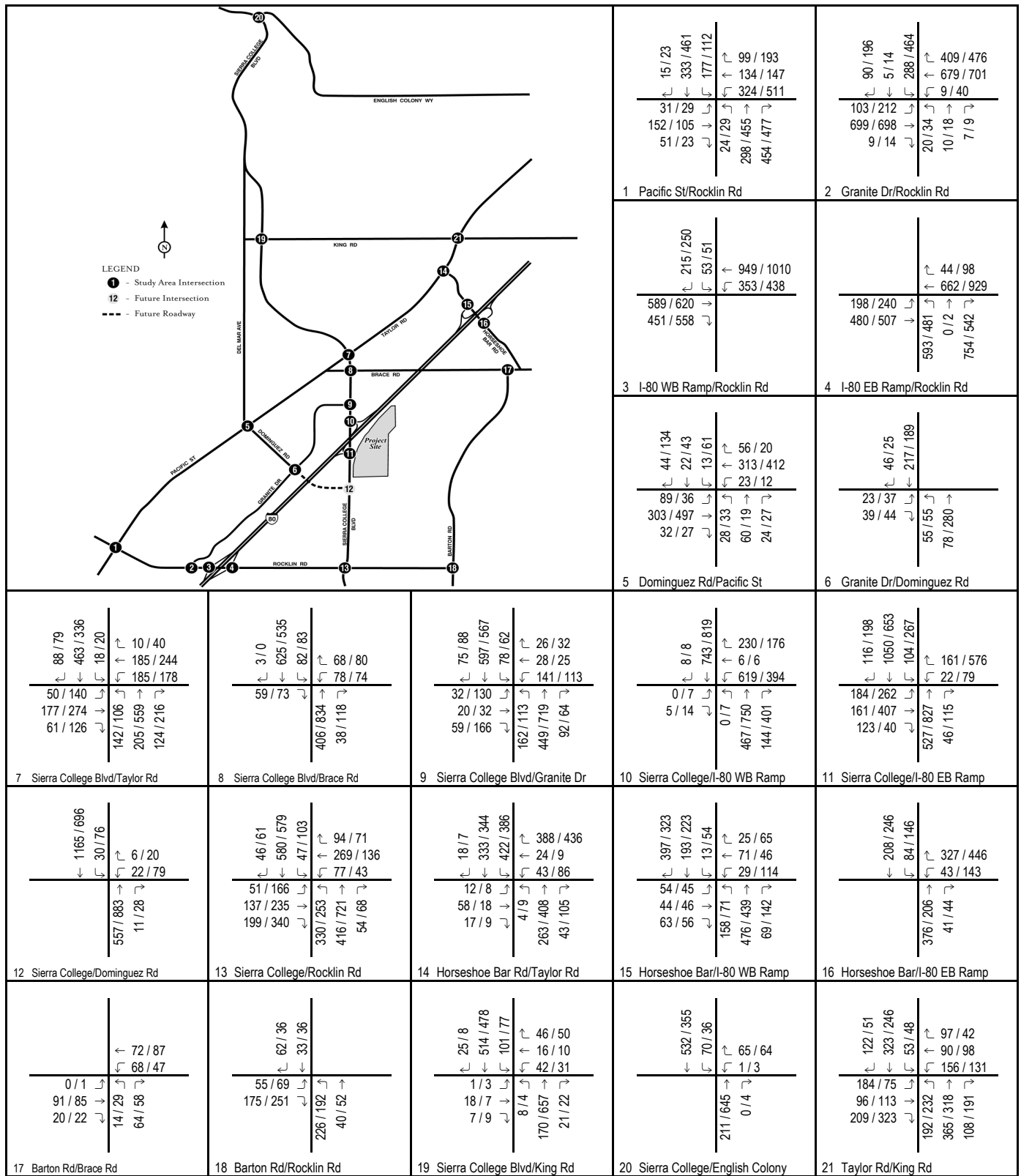


FIGURE 9

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings
Existing Plus Project Peak Hour Traffic Volumes

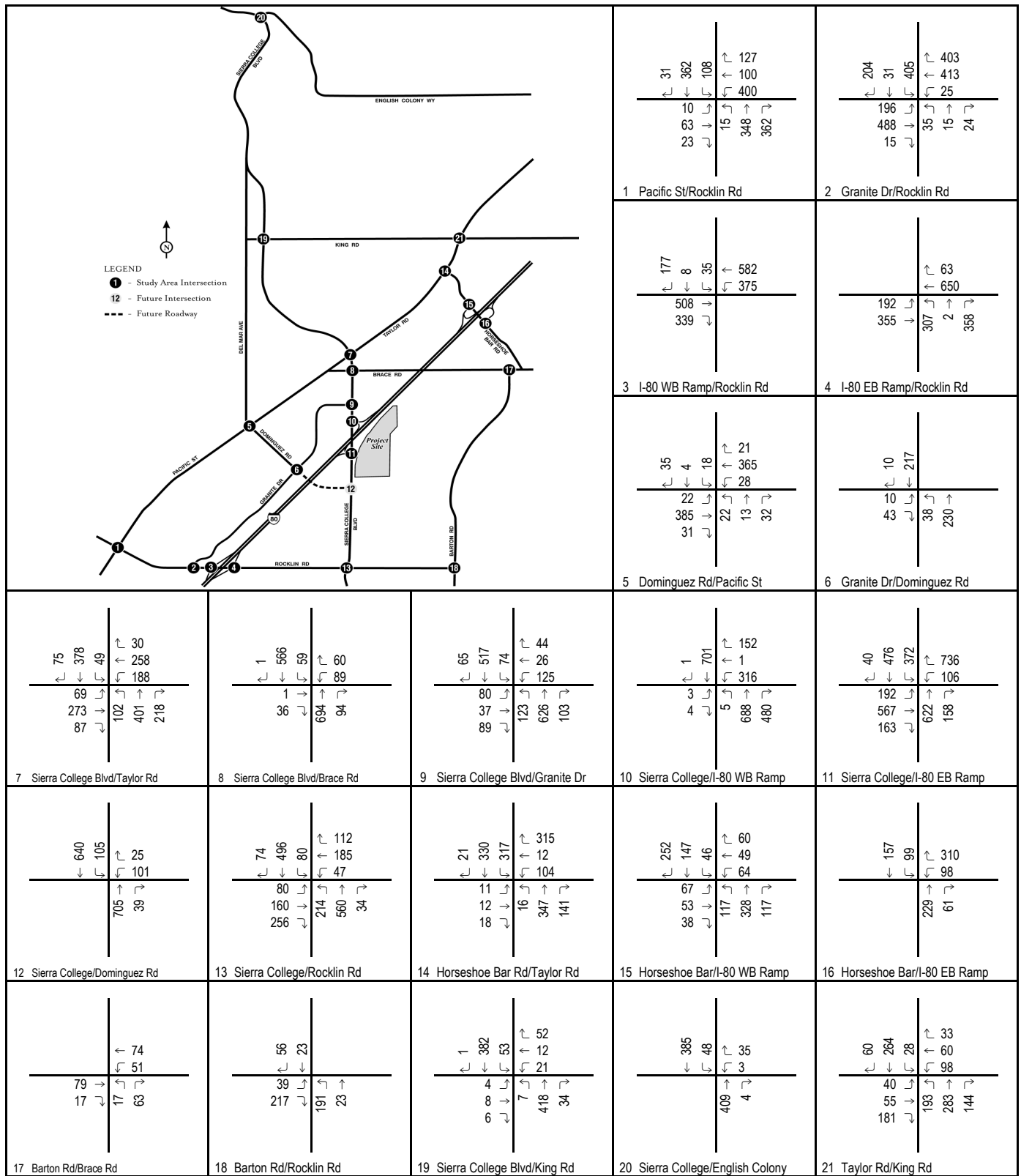


FIGURE 10

Rocklin Crossings
Existing Plus Project Saturday Peak Hour Traffic Volumes

Table D: Existing Plus Project Peak Hour Intersection Level of Service Summary

Intersection	Existing Condition						Existing Plus Project 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	0.699	B	0.701	C	0.528	A	0.711	C	0.733	C	0.569	A
2 Rocklin Road/Granite Drive	0.448	A	0.607	B	0.472	A	0.453	A	0.625	B	0.494	A
3 Rocklin Road/I-80 Westbound Ramps	19.1 sec	B	18.8 sec	B	18.7 sec	B	19.7 sec	B	23.1 sec	C	21.6 sec	C
4 Rocklin Road/I-80 Eastbound Ramps	25.4 sec	C	24.6 sec	C	22.0 sec	C	26.1 sec	C	27.9 sec	C	23.5 sec	C
5 Dominguez Road/Pacific Street ¹	0.385	A	0.483	A	0.337	A	0.392	A	0.493	A	0.352	A
6 Dominguez Road/Granite Drive* ¹	11.3 sec	B	11.5 sec	B	9.9 sec	A	11.3 sec	B	11.6 sec	B	10.0 sec	B
7 Sierra College Boulevard/Taylor Road ¹ (Loomis)	28.6 sec	C	28.2 sec	C	28.5 sec	C	28.7 sec	C	29.5 sec	C	29.0 sec	C
8 Sierra College Boulevard/Brace Road ¹ (Loomis)	19.1 sec	B	12.9 sec	B	12.1 sec	B	20.0 sec	B	13.3 sec	B	10.8 sec	B
9 Sierra College Boulevard/Granite Drive	0.433	A	0.391	A	0.325	A	0.461	A	0.455	A	0.408	A
10 Sierra College Boulevard/I-80 Westbound Ramps	16.1 sec	B	9.7 sec	A	8.6 sec	A	15.3 sec	B	9.5 sec	A	9.7 sec	A
11 Sierra College Boulevard/I-80 Eastbound Ramps	7.3 sec	A	6.9 sec	A	8.1 sec	A	13.1 sec	B	25.6 sec	C	32.2 sec	C
12 Sierra College Boulevard/Dominguez Road	-	-	-	-	-	-	-	-	-	-	-	-
13 Sierra College Boulevard/Rocklin Road ¹	0.748	C	0.661	B	0.562	A	0.769	C	0.695	B	0.637	B
14 Taylor Road/Horseshoe Bar Road ¹ (Loomis)	25.8 sec	C	18.6 sec	B	17.6 sec	B	26.0 sec	C	28.5 sec	C	17.7 sec	B
15 Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	18.5 sec	B	19.4 sec	B	21.7 sec	C	18.5 sec	B	20.3 sec	C	21.8 sec	C
16 Horseshoe Bar Road/I-80 Eastbound Ramps* ¹ (Loomis)	16.8 sec	C	16.9 sec	C	13.4 sec	B	17.1 sec	C	18.1 sec	C	14.1 sec	B
17 Barton Road/Brace Road* ¹ (Loomis)	9.8 sec	A	9.7 sec	A	9.5 sec	A	9.8 sec	A	9.7 sec	A	9.5 sec	A
18 Barton Road/Rocklin Road* ¹ (Loomis)	9.9 sec	A	9.7 sec	A	9.0 sec	A	10.1 sec	A	10.4 sec	B	9.8 sec	A
19 Sierra College Boulevard/King Road ¹ (Loomis)	15.5 sec	B	11.2 sec	B	13.6 sec	B	15.2 sec	B	11.0 sec	B	11.7 sec	B
20 Sierra College Boulevard/English Colony Way* ¹ (Placer County)	9.8 sec	A	13.8 sec	B	10.8 sec	B	10.0 sec	A	14.8 sec	B	11.6 sec	B
21 Taylor Road/King Road ¹ (Loomis)	33.0 sec	C	30.0 sec	C	27.8 sec	C	33.1 sec	C	31.0 sec	C	28.2 sec	C

Notes:

ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.

* Indicates unsignalized intersection

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

² Project-related increase is less than 0.05 in V/C ratio or less than 5% of the total traffic at the intersection, therefore not a significant impact.

☐ Exceeds level of service criteria

◻ (Shade) = Significant Impact

Table E: Existing Plus Project Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	Existing						Existing Plus Project					
				Weekday			Saturday			Weekday			Saturday		
				Volume	V/C	LOS	Volume	V/C	LOS	Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	16,184	1.08	F	11,797	0.79	C	16,499	1.10	F	12,202	0.81	D
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	9,541	0.64	B	9,179	0.61	B	9,981	0.67	B	9,764	0.65	B
	Sierra College Boulevard and City Limits ¹ (Loomis)	Two-lane Collector	15,000	10,182	0.68	B	8,535	0.57	A	10,652	0.71	B	9,155	0.61	B
Pacific Street	City Limits and Dominguez Road ¹	Two-lane Collector	15,000	10,182	0.68	B	8,535	0.57	A	10,652	0.71	B	9,155	0.61	B
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	12,347	0.41	A	10,015	0.33	A	12,502	0.42	A	10,220	0.34	A
Rocklin Road	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	17,056	0.57	A	12,963	0.43	A	17,831	0.59	A	13,988	0.47	A
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	14,795	0.49	A	11,787	0.39	A	14,950	0.50	A	11,992	0.40	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	6,228	0.42	A	5,029	0.34	A	6,848	0.46	A	5,859	0.39	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	1,755	0.12	A	1,456	0.10	A	1,755	0.12	A	1,456	0.10	A
Horseshoe Bar Road	I-80 and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	7,194	0.48	A	6,327	0.42	A	7,404	0.49	A	6,597	0.44	A
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	2,397	0.16	A	1,867	0.12	A	2,647	0.18	A	2,207	0.15	A
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	2,757	0.18	A	2,523	0.17	A	2,887	0.19	A	2,693	0.18	A
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Two-lane Collector	15,000	9,861	0.66	B	8,215	0.55	A	11,251	0.75	C	10,075	0.67	B
	King Road and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	9,618	0.64	B	8,288	0.55	A	11,398	0.76	C	10,663	0.71	B
	Taylor Road and I-80	Two-lane Collector	15,000	16,150	1.08	F	13,510	0.90	E	19,450	1.30	F	17,915	1.19	F
	I-80 and Dominguez Road ²	Four-lane Undivided Arterial	30,000	17,320	0.58	A	12,682	0.42	A	20,495	0.68	B	16,952	0.57	A
	Dominguez Road ² and Rocklin Road ¹	Two-lane Collector	15,000	17,467	1.16	F	12,716	0.85	D	20,252	1.35	F	16,431	1.10	F
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	7,462	0.25	A	5,973	0.20	A	7,612	0.25	A	6,173	0.21	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	5,547	0.18	A	4,668	0.16	A	5,622	0.19	A	4,768	0.16	A
Dominguez Road	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	1,958	0.13	A	737	0.05	A	1,958	0.13	A	737	0.05	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	2,980	0.20	A	2,501	0.17	A	3,060	0.20	A	2,601	0.17	A

Notes:
¹ LOS C required for these segments. LOS D acceptable for all other segments.
² Proposed location of the future extension of Dominguez Road.

Exceeds level of service criteria

Table F: Existing plus Project Peak Hour Roadway Segment Level of Service Summary

Roadway	Segment	Capacity	Existing			Existing + Project		
			Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)							
	A.M. Peak Hour Northbound	1,650	660	0.40	A	664	0.40	A
	A.M. Peak Hour Southbound	1,650	724	0.44	A	731	0.44	A
	P.M Peak Hour Northbound	1,650	781	0.47	A	797	0.48	A
	P.M Peak Hour Southbound	1,650	703	0.43	A	719	0.44	A
	Saturday Peak Hour Northbound	1,650	627	0.38	A	647	0.39	A
	Saturday Peak Hour Southbound	1,650	585	0.35	A	606	0.37	A
Sierra College Boulevard	Taylor Rd and I-80							
	A.M. Peak Hour Northbound	1,650	423	0.26	A	476	0.29	A
	A.M. Peak Hour Southbound	1,650	685	0.42	A	756	0.46	A
	P.M Peak Hour Northbound	1,650	748	0.45	A	917	0.56	A
	P.M Peak Hour Southbound	1,650	539	0.33	A	700	0.42	A
	Saturday Peak Hour Northbound	1,650	552	0.33	A	769	0.47	A
	Saturday Peak Hour Southbound	1,650	450	0.27	A	674	0.41	A
Sierra College Boulevard	Dominguez Rd and Rocklin Rd							
	A.M. Peak Hour Northbound	1,650	508	0.31	A	561	0.34	A
	A.M. Peak Hour Southbound	1,650	633	0.38	A	673	0.41	A
	P.M Peak Hour Northbound	1,650	837	0.51	A	958	0.58	A
	P.M Peak Hour Southbound	1,650	616	0.37	A	743	0.45	A
	Saturday Peak Hour Northbound	1,650	584	0.35	A	752	0.46	A
	Saturday Peak Hour Southbound	1,650	487	0.30	A	650	0.39	A

7. EXISTING PLUS APPROVED PROJECTS (BASELINE)

7.A. Existing Plus Approved Projects (Baseline) Traffic Volumes

To identify traffic conditions that could be expected at the time of the project's opening, an existing plus approved projects (baseline) scenario was developed. For example, the Clover Valley project, though not yet constructed, is an approved residential development project in the City that includes construction of a new roadway (Valley View Parkway) to connect Park Drive and Sierra College Boulevard. This new roadway connection was included in the existing plus approved projects (baseline) scenario. Due to this new roadway connection, existing traffic along Sierra College Boulevard and other streets in the vicinity will be redistributed. In order to model the effect of the new roadway connection, a travel demand model was used. The City's travel demand model (developed and maintained by DKS Associates, Inc.) 2008 baseline was used to model the new roadway connection (Valley View Boulevard) between Park Drive and Sierra College Boulevard for the existing plus approved projects scenario.

Traffic volumes from the 2008 baseline model with and without the Valley View Boulevard connector were compared to develop the percentage change in volumes as a result of the new connection. Due to the new roadway connection in the second model run, the traffic along Sierra College Boulevard was redistributed to the adjacent street network. In order to capture the redistribution of the traffic that was originally traveling along Sierra College Boulevard, the traffic from the first model run was subtracted from the second model run. A percent change in model traffic volumes at all the intersections in the study area was obtained by dividing the difference in traffic volumes between the first model run and the second model run by the original traffic volumes in the first model run. These percentages estimated from the forecast model were then applied to the existing (2010) counts to develop the redistributed existing (2010) traffic volumes at study area intersections for the existing plus approved projects scenario. The Saturday traffic volumes were calculated by applying the ratios from the p.m. model volume data to the existing plus approved projects scenario. These traffic volumes were used as the base and the traffic generated by the approved projects were added to the redistributed existing (2010) traffic volumes to obtain the volumes for the existing plus approved projects scenario.

The widening of Sierra College Boulevard between Taylor Road and El Don Drive is a planned improvement. The overall Sierra College Boulevard Widening project is broken into two phases: Phase I, south of the I-80 interchange to El Don Drive (in Rocklin); and Phase II, north of the I-80 interchange from Granite Drive to Taylor Road (which includes segments in both Rocklin and Loomis). City staff indicated that Phase I (the widening of Sierra College Boulevard to four lanes between I-80 and El Don Drive), is currently under construction. Construction on Phases I and II is anticipated to be completed by the end of 2010, and by spring 2011, respectively, per City of Rocklin staff. Sources of funding for this widening project will include the City of Rocklin, the Town of Loomis, and the South Placer Regional Transportation Authority (SPRTA). Hence the roadway segment analysis for Existing Plus Approved Projects includes widening of Sierra College Boulevard to four lanes between Taylor Road and El Don Drive.

As a part of the Sierra College Boulevard widening project,¹ which is currently under construction, the lane configuration for the following intersections will be improved. The improvements to the intersections are listed below.

Sierra College Boulevard/Rocklin Road Intersection

- **Northbound:** Addition of an exclusive right-turn lane
- **Southbound:** Addition of a third through lane, and exclusive right-turn lane

Sierra College Boulevard/Brace Road Intersection

- **Northbound:** Addition of a second through lane
- **Southbound:** Addition of a second through lane

Sierra College Boulevard/Taylor Road Intersection

- **Northbound:** Addition of a second through lane by converting the existing exclusive right-turn lane to a shared through/right-turn lane
- **Southbound:** Addition of a second through lane by converting the existing exclusive right-turn lane to a shared through/right-turn lane

The short-term geometrics and traffic control for project scenarios are illustrated on Figure 11.

A list of approved projects was requested from the City of Rocklin, the City of Roseville, the Town of Loomis, and Placer County. All the jurisdictions have provided their lists of approved projects. The approved projects list obtained from all the jurisdictions is provided in Appendix D. The locations of the approved projects are illustrated on Figure 12. Based on the locations of the projects submitted by each jurisdiction, the projects were divided into two categories. The first category includes projects located in the study area (in the vicinity of the Crossings project) that will contribute trips to the study area intersections and roadway segment. The second category includes projects located outside the study area that will not contribute significant trips to the study area intersections and roadway segments but that will contribute trips (regional traffic) to freeway segments analyzed in this traffic study. The approved projects list under Category 1 is provided in Table G1, while the approved projects list under Category 2 is provided in Table G2.

The traffic volumes for approved projects were determined by applying the trip generation rates from the ITE's *Trip Generation*, 8th Edition, to the approved land uses. The approved projects and their respective trip generation rates are shown in Table G1. The traffic generated by the approved projects in Category 1 (Table G1) was assigned to the study area intersections and roadway segments. Since the proposed Dominguez Road extension is not a funded project it was not included in the list of approved projects.

¹ October 12, 2010, Declaration of David Mohlenbrok of City of Rocklin regarding September 23, 2010, personal communication with David Palmer, City of Rocklin Senior Engineer, regarding the Sierra College Boulevard widening project.

As discussed earlier, the projects listed in Category 2 (Table G2) are located outside the study area and will generate regional trips that will be assigned to the freeways. Even though all these projects are approved, their actual years of completion (construction) are not known. Thus, it is difficult to estimate the regional distribution of the traffic generated by these projects. Due to these unknowns, the City's travel demand model, which includes all these projects (in 2030 conditions), is used to calculate the regional traffic on freeways. Based on the current market conditions, the developer's best estimate of the complete build out of the project is 2017. Hence, the growth in traffic between travel demand model base year 2008 and future year (2030) model volumes is calculated and a portion of this growth [between 2008 and 2017 (complete build out of project)] is added to the 2008 freeway counts to develop the traffic volumes that will be used for analyzing the existing plus approved projects condition.

7.B. Existing plus Approved Projects (Baseline) Levels of Service

Traffic from the approved projects was added to the redistributed existing (2010) traffic volumes and LOS were calculated for the existing plus approved projects scenario. Existing plus approved projects weekday peak-hour and Saturday traffic volumes are illustrated on Figures 13 and 14, respectively. The LOS for study area intersections and roadway segments in the existing plus approved projects scenario are shown in Tables H and I. The existing plus approved projects LOS worksheets are provided in Appendix E.

As shown in Table H, the following four intersections are projected to operate at unsatisfactory LOS in the existing plus approved projects condition:

- Rocklin Road/Pacific Street
- Taylor Road/Horseshoe Bar Road (Loomis)
- Sierra College Boulevard/King Road (Loomis)
- Taylor Road/King Road (Loomis)

For roadway segments Tables I and I2 show that application of the two-step procedure, first evaluating daily volume to capacity and then, if necessary, peak hour directional volume to capacity, results in no exceedance of LOS standards. While three roadway segments exceeded daily capacities the peak hour directional analysis confirmed that these three segments will operate at acceptable LOS.

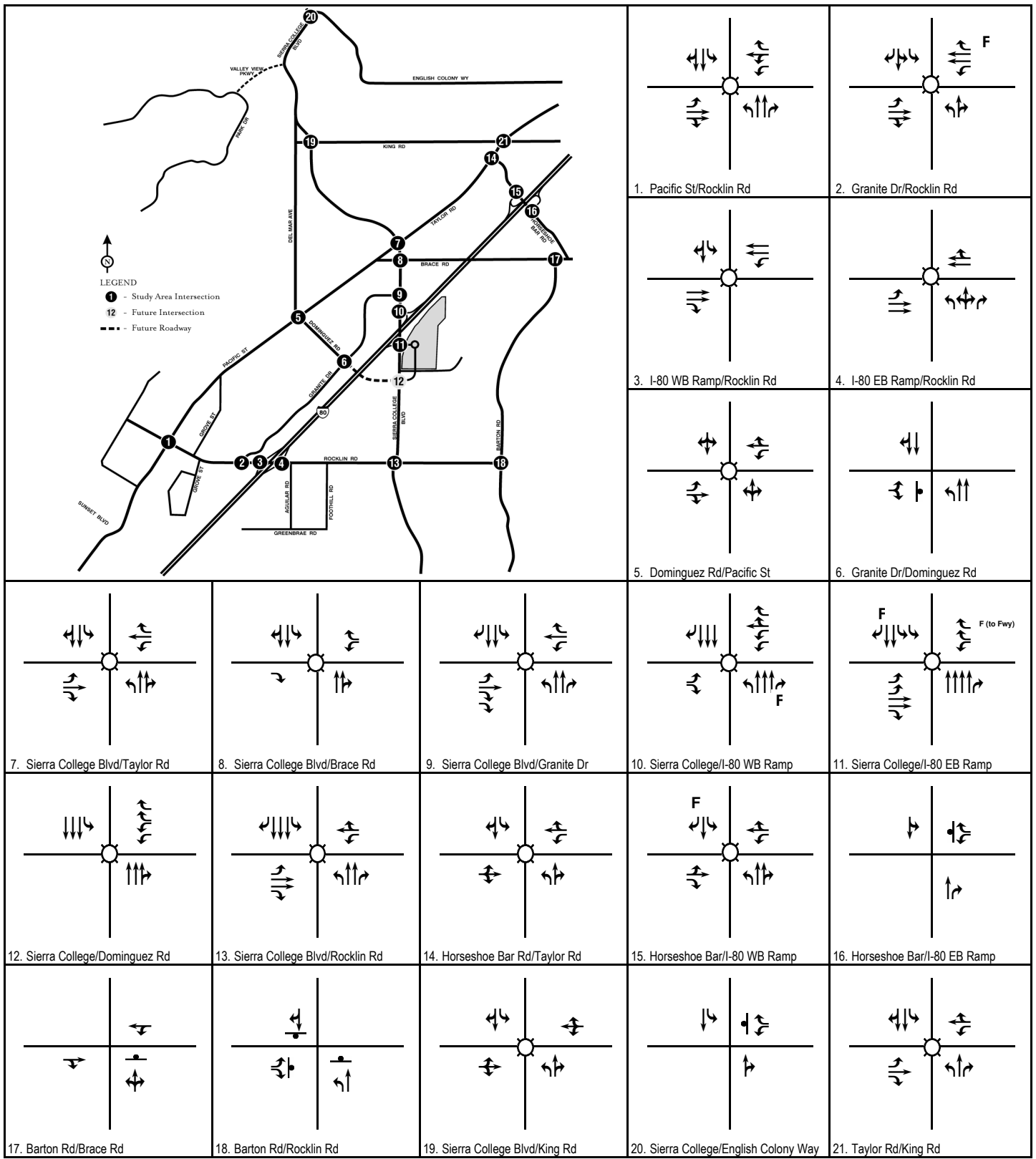
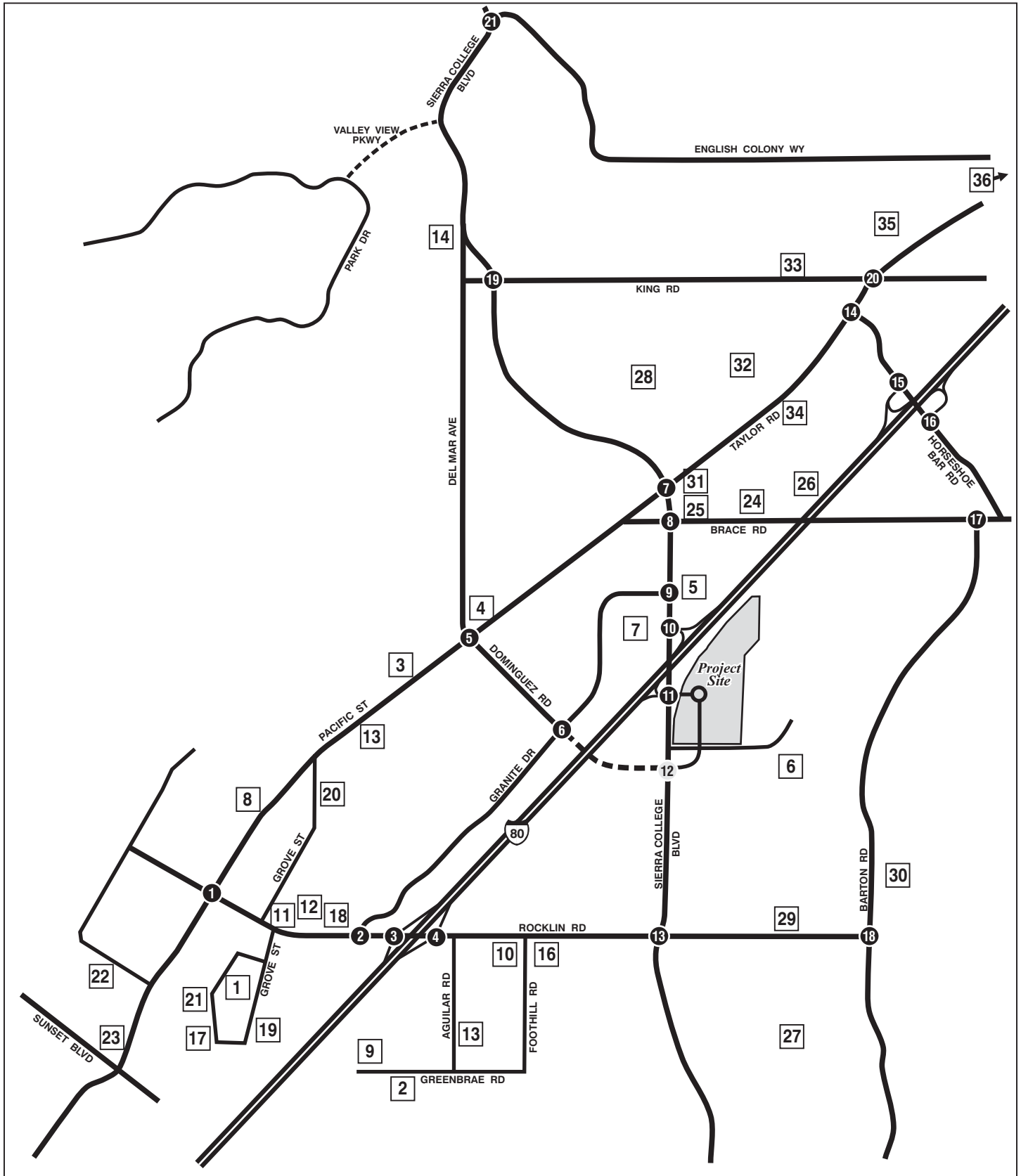


FIGURE 11

Rocklin Crossings
Short Term Geometrics and Traffic Control

Table G: Trip Generation of Study Area Approved Projects

Project No.	Description	Landuse (ITE Code)	Size	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
City of Rocklin												
1	Winding Lane Estates	Single Family Detached Housing (210)	27 du	7	21	28	20	12	32	13	11	24
2	Granite Lake Estates	Single Family Detached Housing (210)	119 du	23	70	93	79	46	125	60	51	112
3	Del Mar Business Park Parcel 4	Business Park (770) and Mini-Warehouse (151)	200.7 ksf	136	29	165	42	134	176	34	30	65
4	Rocklin Boat Hotel	Mini-Warehouse (151)	27.3 ksf	2	2	4	4	3	7	5	5	11
5	Granite Marketplace	Shopping Center (820)	138 ksf	87	55	142	248	269	518	357	329	686
6	Croftwood, Unit 1	Single Family Detached Housing (210)	156 du	29	88	117	99	58	158	79	67	147
7	Rocklin Commons	Shopping Center (820)	415.0 ksf	202	192	331	692	749	1,441	1,022	943	1,965
8	ZL Rocklin	Mixed Use Retail/Residential	154.8 ksf	24	63	87	83	59	142	75	72	146
9	Bender Insurance Office Building	Bender Insurance Office Building	14.7 ksf	10	31	41	60	35	95	3	3	6
10	Rocklin Sierra Plaza	Shopping Center (820)	31.60 ksf	78	30	108	140	153	293	82	75	157
11	Grove Street Subdivision Map	Single Family Detached Housing (210)	7 du	1	4	5	4	3	7	4	3	7
12	Meyers Court Subdivision	Single Family Detached Housing (210)	9 du	2	5	7	6	3	9	5	4	8
13	Circuit Place	Single Family Detached Housing (210)	11 du	2	6	8	7	4	11	6	5	10
14	Clover Valley	Single Family Detached Housing (210)	558 du	105	314	419	355	209	564	283	241	525
15	Bramblewood Estates	Single Family Detached Housing (210)	2 du	3	8	11	2	1	3	1	1	2
16	Rocklin Executive Office Park	Office Park (710)	21 ksf	27	27	54	51	51	102	5	4	9
17	Villages	Single Family Detached Housing (210)	65 du	14	41	55	46	27	73	33	28	61
18	Granite Business Center	General Office Building (710)	16.60 ksf	39	6	45	17	80	97	4	3	7
19	Rocklin Mobile Home Park Addition	Mobile Home Park (240)	21 du	4	14	18	9	5	14	6	5	11
20	Holy Cross Lutheran Church	Church (560)	40.63 ksf	16	13	29	14	13	27	102	42	144
21	Samoylovich Estates	Single Family Detached Housing (210)	4 du	7	5	12	3	3	6	2	2	4
22	Colish Subdivision	Single Family Detached Housing (210)	8 du	4	11	15	7	4	11	4	3	8
23	Pacific Center Retail Center	Shopping Center (820)	32.2 ksf	48	31	79	142	154	296	83	77	160
Town Of Loomis												
24	Del Oro Vistas	Single Family Detached Housing (210)	12 du	2	7	9	8	4	12	6	5	11
25	Brace Ranch Estates	Single Family Detached Housing (210)	8 du	2	5	6	5	3	8	4	3	8
26	Heritage Park Estates	Single Family Detached Housing (210)	68 du	13	38	51	43	25	69	35	29	64
27	Monte Clair Unit 2	Single Family Detached Housing (210)	8 du	2	5	6	5	3	8	4	3	8
28	Morgan Estates	Single Family Detached Housing (210)	8 du	2	5	6	5	3	8	4	3	8
29	Poppy Ridge	Single Family Detached Housing (210)	7 du	1	4	5	4	3	7	4	3	7
30	Sierra de Montserrat	Single Family Detached Housing (210)	62 du	12	35	47	39	23	63	31	27	58
31	Taylor Road Mixed-Use	Mixed Use Retail/Residential		17	26	43	53	47	100	61	57	118
32	Nejadian Subdivision	Single Family Detached Housing (210)	8 du	2	5	6	5	3	8	4	3	8
33	Minor Land Division (King)	Single Family Detached Housing (210)	2 du	0	1	2	1	1	2	1	1	2
34	Alley Loomis Retail	Shopping Center (820)	5 ksf	3	2	5	9	10	19	13	12	25
35	Swetzer Road Business Park	Business Park (770)	42.26 ksf	51	10	60	13	42	55	10	9	19
36	Lugo Classic Car Restoration	Automobile Care Center (942)	8 stall	8	4	12	9	9	17	16	16	32
Total				983	1,210	2,131	2,330	2,252	4,582	2,461	2,179	4,640



LSA

LEGEND

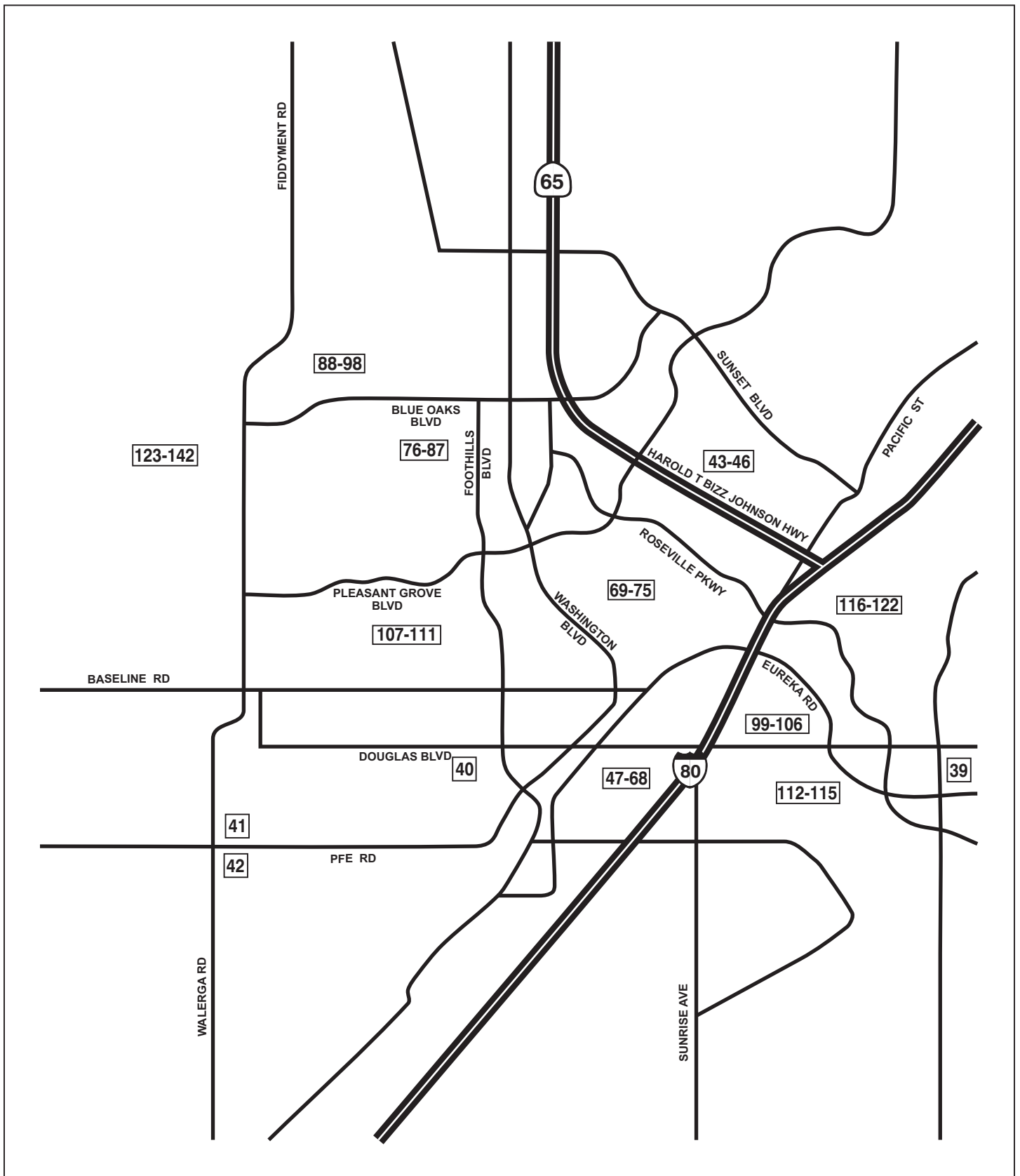
- #** - Study Area Intersection
- 12** - Future Intersection
- - -** - Future Roadway
- #** - Approved Projects*

*Refer to Table G for Project Identification

FIGURE 12A



SCHEMATIC - NOT TO SCALE



LSA

LEGEND

FIGURE 12B

- Approved Project Vicinity



SCHEMATIC - NOT TO SCALE

I:\DSR330\Approved Projects-b.cdr (9/13/10)

Rocklin Crossings
Location of Approved Projects

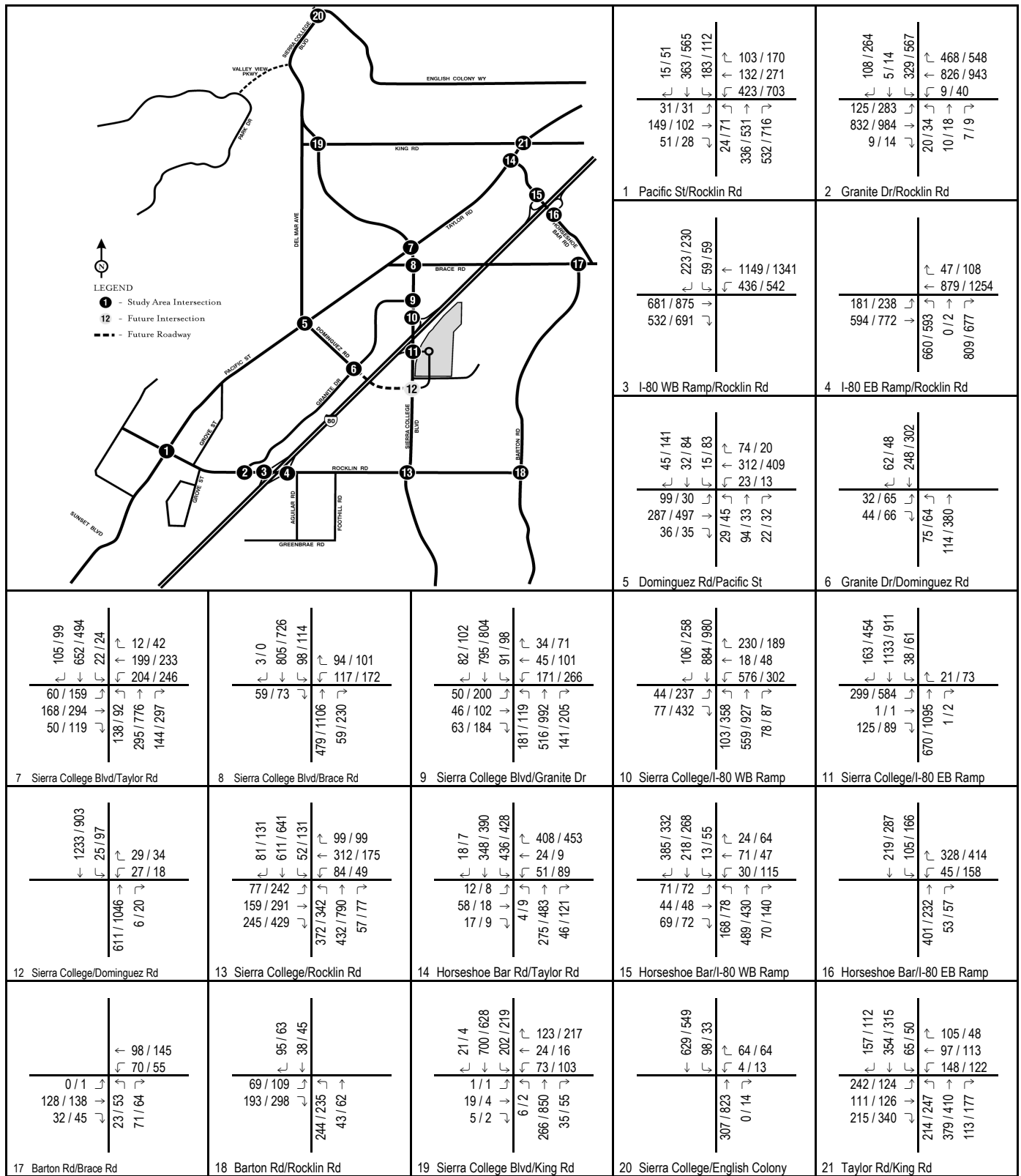


FIGURE 13

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings

Existing Plus Approved Projects (Baseline) Peak Hour Traffic Volumes

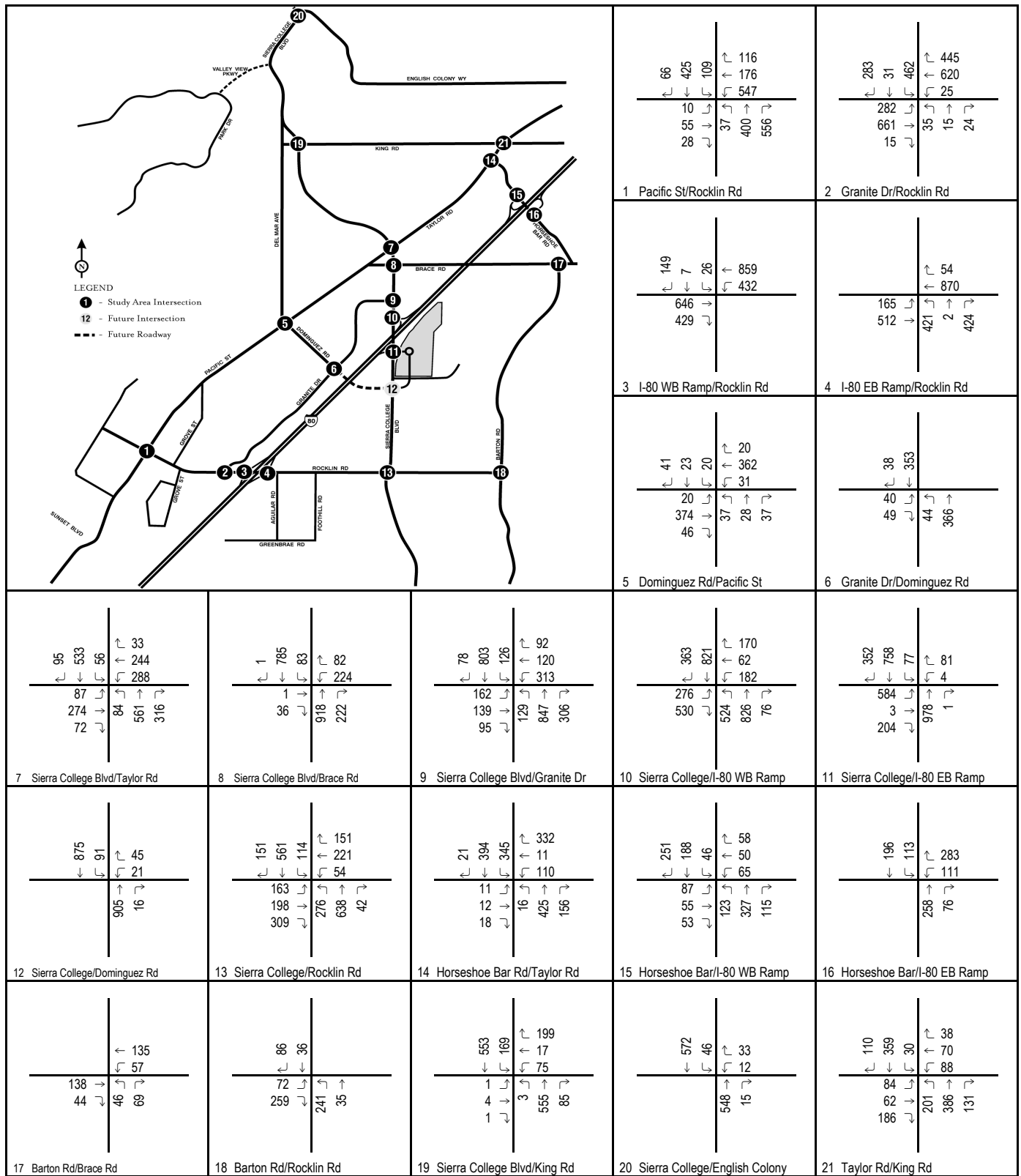


FIGURE 14

Rocklin Crossings
Existing Plus Approved Projects (Baseline) Saturday Peak Hour Traffic Volumes

Table H: Existing Plus Approved Projects (Baseline) Condition Intersection Level of Service Summary

Intersection		Existing Plus Approved 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	0.810	D	1.029	F	0.797	C
2	Rocklin Road/Granite Drive	0.539	A	0.805	D	0.665	B
3	Rocklin Road/I-80 Westbound Ramps	21.9 sec	C	29.3 sec	C	20.2 sec	C
4	Rocklin Road/I-80 Eastbound Ramps	28.4 sec	C	40.4 sec	D	23.8 sec	C
5	Dominguez Road/Pacific Street ¹	0.437	A	0.531	A	0.376	A
6	Dominguez Road/Granite Drive* ¹	13.1 sec	B	16.0 sec	C	14.3 sec	B
7	Sierra College Boulevard/Taylor Road ¹ (Loomis)	27.8 sec	C	31.0 sec	C	30.8 sec	C
8	Sierra College Boulevard/Brace Road ¹ (Loomis)	18.0 sec	B	16.2 sec	B	16.6 sec	B
9	Sierra College Boulevard/Granite Drive	0.579	A	0.700	B	0.728	C
10	Sierra College Boulevard/I-80 Westbound Ramps	20.3 sec	C	27.0 sec	C	33.0 sec	C
11	Sierra College Boulevard/I-80 Eastbound Ramps	9.1 sec	A	12.9 sec	B	15.3 sec	B
12	Sierra College Boulevard/Dominguez Road	-	-	-	-	-	-
13	Sierra College Boulevard/Rocklin Road ¹	0.774	C	0.779	C	0.726	C
14	Taylor Road/Horseshoe Bar Road ¹ (Loomis)	36.9 sec	D	43.4 sec	D	30.6 sec	C
15	Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	19.1 sec	B	20.9 sec	C	22.3 sec	C
16	Horseshoe Bar Road/I-80 Eastbound Ramps* ¹ (Loomis)	18.3 sec	C	22.0 sec	C	15.5 sec	C
17	Barton Road/Brace Road* ¹ (Loomis)	10.7 sec	B	11.1 sec	B	11.3 sec	B
18	Barton Road/Rocklin Road* ¹ (Loomis)	10.7 sec	B	12.0 sec	B	11.2 sec	B
19	Sierra College Boulevard/King Road ¹ (Loomis)	22.8 sec	C	36.3 sec	D	25.3 sec	C
20	Sierra College Boulevard/English Colony Way* ¹ (Placer County)	11.5 sec	B	21.3 sec	C	16.3 sec	C
21	Taylor Road/King Road ¹ (Loomis)	35.1 sec	D	31.8 sec	C	27.5 sec	C

Notes:

ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.

* Indicates unsignalized intersection

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

Exceeds level of service criteria

Table I: Existing Plus Approved Projects (Baseline) Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	Weekday			Saturday		
				Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	18,127	1.21	F	14,060	0.94	E
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	11,590	0.77	C	11,675	0.78	C
	Sierra College Boulevard and City Limits ¹ (Loomis)	Two-lane Collector	15,000	11,540	0.77	C	9,610	0.64	B
Pacific Street	City Limits and Dominguez Road ¹	Two-lane Collector	15,000	11,438	0.76	C	9,524	0.63	B
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	13,780	0.46	A	11,150	0.37	A
Rocklin Road	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	23,465	0.78	C	18,848	0.63	B
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	20,715	0.69	B	17,232	0.57	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	8,458	0.56	A	7,514	0.50	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	2,495	0.17	A	2,256	0.15	A
Horseshoe Bar Road	I-80 and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	7,882	0.53	A	6,974	0.46	A
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	5,203	0.35	A	5,305	0.35	A
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	4,695	0.31	A	4,649	0.31	A
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Two-lane Collector	15,000	17,403	1.16	F	15,628	1.04	F
	King Road and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	18,052	1.20	F	16,556	1.10	F
	Taylor Road and I-80	Four-lane Undivided Arterial	30,000	26,372	0.88	D	25,350	0.85	D
	I-80 and Dominguez Road ²	Four-lane Undivided Arterial	30,000	24,470	0.82	D	21,627	0.72	C
Granite Drive	Dominguez Road ² and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	23,447	0.78	C	20,341	0.68	B
	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	10,037	0.33	A	9,103	0.30	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	8,427	0.28	A	7,708	0.26	A
Dominguez Road	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	2,533	0.17	A	1,349	0.09	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	7,445	0.50	A	6,217	0.41	A

Notes:

¹ LOS C required for these segments. LOS D acceptable for all other segments.² Proposed location of the future extension of Dominguez Road.
 Exceeds level of service criteria

**Table I2: Existing Plus Approved Projects (Baseline)
Peak Hour Roadway Segment Level of Service Summary**

Roadway	Segment	Capacity	Existing + Approved		
			Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)				
	A.M. Peak Hour Northbound	1,650	701	0.42	A
	A.M. Peak Hour Southbound	1,650	760	0.46	A
	P.M Peak Hour Northbound	1,650	889	0.54	A
	P.M Peak Hour Southbound	1,650	801	0.49	A
	Saturday Peak Hour Northbound	1,650	743	0.45	A
	Saturday Peak Hour Southbound	1,650	697	0.42	A
Sierra College Boulevard	English Colony Way and King Rd (Placer County)				
	A.M. Peak Hour Northbound	1,650	349	0.21	A
	A.M. Peak Hour Southbound	1,650	778	0.47	A
	P.M Peak Hour Northbound	1,650	953	0.58	A
	P.M Peak Hour Southbound	1,650	707	0.43	A
	Saturday Peak Hour Northbound	1,650	659	0.40	A
	Saturday Peak Hour Southbound	1,650	653	0.40	A
Sierra College Boulevard	King Rd and Taylor Rd (Loomis)				
	A.M. Peak Hour Northbound	1,650	337	0.20	A
	A.M. Peak Hour Southbound	1,650	779	0.47	A
	P.M Peak Hour Northbound	1,650	942	0.57	A
	P.M Peak Hour Southbound	1,650	675	0.41	A
	Saturday Peak Hour Northbound	1,650	662	0.40	A
	Saturday Peak Hour Southbound	1,650	657	0.40	A

Notes:

- Exceeds level of service criteria
- Significant Impact

8. EXISTING PLUS APPROVED PROJECTS (BASELINE) PLUS PROJECT

8.A. Existing Plus Approved Projects (Baseline) Plus Project Levels of Service

Traffic volumes generated by the proposed project were added to the existing plus approved projects (baseline) traffic volumes, and LOS were calculated for the existing plus approved projects (baseline) plus project scenario. The existing plus approved projects (baseline) plus project weekday and Saturday peak-hour traffic volumes are illustrated on Figures 15 and 16, respectively. The LOS for study area intersections and roadway segments in the existing plus approved projects plus project scenario are shown in Tables J, K, and L. The existing plus approved projects plus project LOS worksheets are provided in Appendix F.

As shown in Table J, the following intersections are projected to operate at unsatisfactory LOS and are significantly impacted in the existing plus approved projects plus project condition:

- The intersection of Rocklin Road/Pacific Street is projected to operate at LOS C in the no project condition during Saturday peak hour. Addition of the project traffic deteriorates the operation of this intersection to LOS D (unacceptable) in with project condition. Since the LOS at this intersection changes from an acceptable LOS C (in no project condition) to an unacceptable LOS D (in with project condition), the project impact at this intersection is significant.
- The intersection of Sierra College Boulevard/Rocklin Road is projected to operate at LOS C during the p.m. peak hour and Saturday peak hour in the no project condition. Addition of the project traffic deteriorates the operation of this intersection to LOS D (unacceptable) in with project condition. Since the LOS at this intersection changes from an acceptable LOS C (in no project condition) to an unacceptable LOS D (in with project condition), the project impact at this intersection is significant.
- The intersection of Sierra College Boulevard/King Road (Loomis) is projected to operate at LOS D (unacceptable) during the p.m. peak hour in the no project condition. The project adds more than 5 percent of total traffic at the intersection in with project condition. Since the LOS at this intersection is unacceptable LOS D (in no project condition) and the project adds more than 5 percent of the total traffic at the intersection (in with project condition), the project impact at this intersection is significant.

As shown in Table K, all but eight of the study area roadway segments are forecast to operate within their daily roadway capacities. A directional peak-hour roadway segment analysis was prepared for these eight segments and is shown in Table L. In the a.m., p.m., and Saturday midday peak hours, all the roadway segments will operate with satisfactory v/c ratios. Because these roadway segments are projected to operate at satisfactory v/c ratios during the peak hours of roadway traffic, they are not considered deficient or significantly impacted by the project.

8.B. Recommended Mitigation: Existing Plus Approved Projects (Baseline) Plus Project

- **Rocklin Road/Pacific Street.** Addition of project traffic would result in the LOS at this intersection deteriorating from LOS C to LOS D, during the Saturday peak hour in the existing plus approved projects condition. *Adding a northbound right-turn overlap phase would mitigate the project impact at this location.*

- **Sierra College Boulevard/Rocklin Road.** Addition of project traffic would result in the LOS at this intersection deteriorating from LOS C to LOS D during the p.m. peak and Saturday peak hours in the existing plus approved projects condition. *Adding a westbound through lane (resulting in two through lanes) would mitigate the project impact at this location.*
- **Sierra College Boulevard/King Road (Loomis).** The project would add traffic to this already-deficient location, which is operating at LOS D during the p.m. peak hour in the existing plus approved projects condition. *Adding a westbound right-turn lane by restriping the westbound approach would mitigate the project impact at this location.* Because the Town of Loomis controls what occurs at the intersection, however, the City conservatively concludes that, at the time of action by its City Council, the impact would be treated as **significant and unavoidable**, given that the City has no control over Loomis and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented.

The proposed mitigation for the existing plus approved projects (baseline) plus project scenario are shown on Figure 17. The intersections where new improvements are proposed are highlighted.

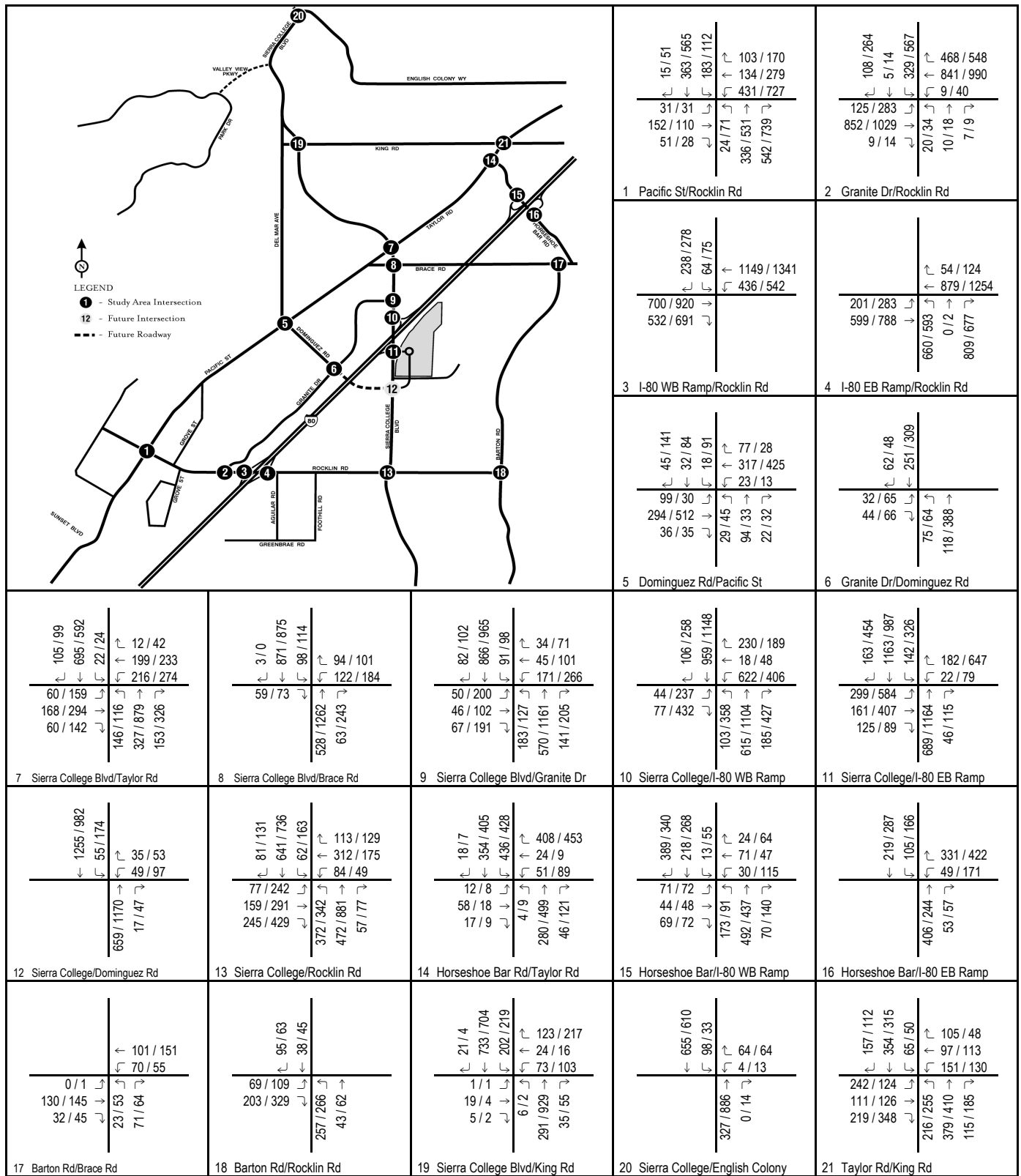


FIGURE 15

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings

Existing Plus Approved Projects (Baseline) Plus Project Peak Hour Traffic Volumes

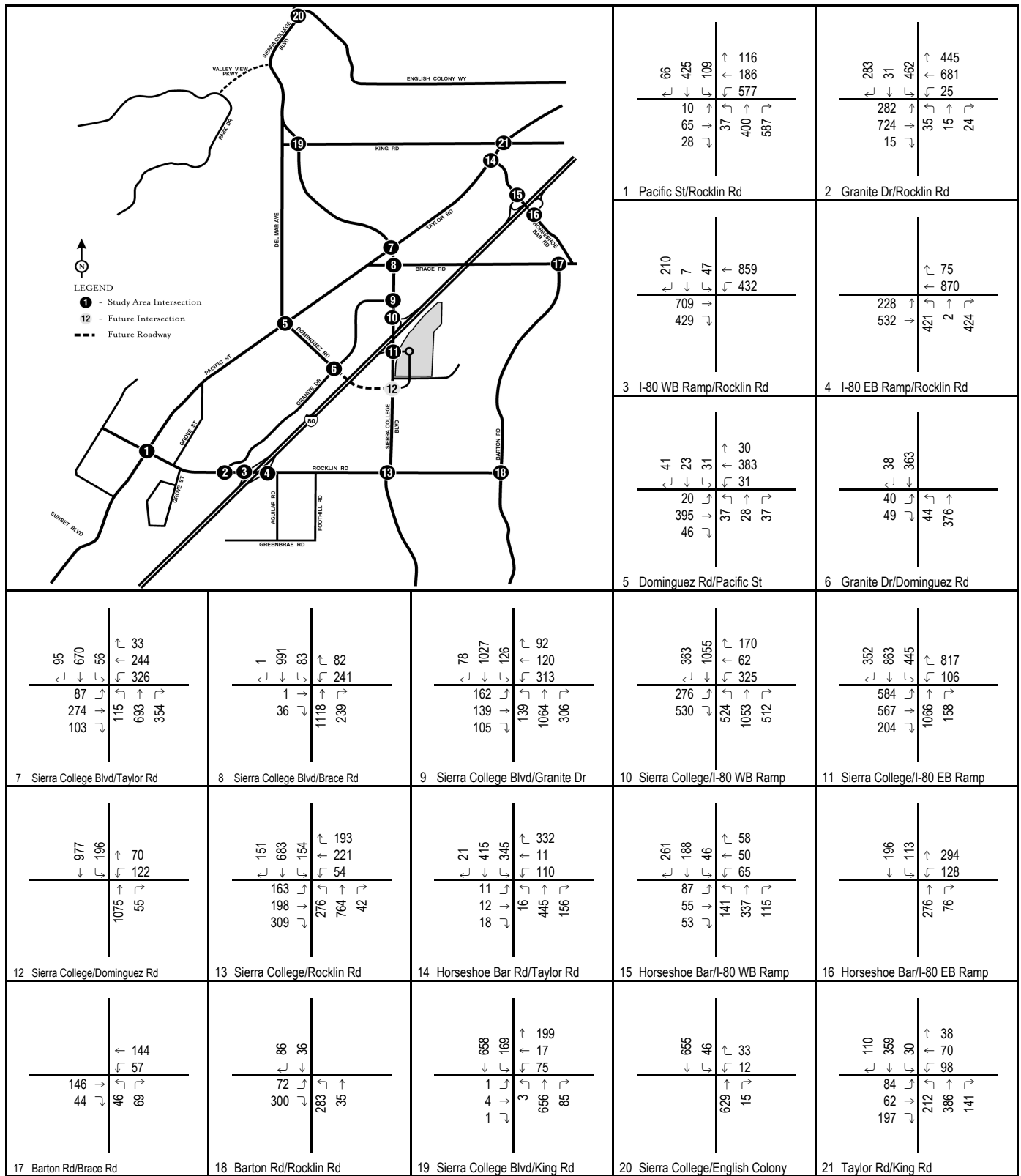


FIGURE 16

Rocklin Crossings
Existing Plus Approved Projects (Baseline) Plus Project Saturday Peak Hour Traffic Volumes

Table J: Existing Plus Approved Projects (Baseline) Plus Project Condition Intersection Level of Service Summary

Intersection	Existing Plus Approved Condition						Existing Plus Approved Plus Project 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	0.810	D	1.029	F	0.797	C	0.822	D ²	1.061	F ²	0.838	D
2 Rocklin Road/Granite Drive	0.539	A	0.805	D	0.665	B	0.545	A	0.822	D	0.687	B
3 Rocklin Road/I-80 Westbound Ramps	21.9 sec	C	29.3 sec	C	20.2 sec	C	22.7 sec	C	33.9 sec	C	23.4 sec	C
4 Rocklin Road/I-80 Eastbound Ramps	28.4 sec	C	40.4 sec	D	23.8 sec	C	29.4 sec	C	45.8 sec	D	25.5 sec	C
5 Dominguez Road/Pacific Street ¹	0.437	A	0.531	A	0.376	A	0.445	A	0.547	A	0.399	A
6 Dominguez Road/Granite Drive* ¹	13.1 sec	B	16.0 sec	C	14.3 sec	B	13.1 sec	B	16.3 sec	C	14.6 sec	B
7 Sierra College Boulevard/Taylor Road ¹ (Loomis)	27.8 sec	C	31.0 sec	C	30.8 sec	C	28.0 sec	C	32.8 sec	C	32.7 sec	C
8 Sierra College Boulevard/Brace Road ¹ (Loomis)	18.0 sec	B	16.2 sec	B	16.6 sec	B	18.1 sec	B	16.7 sec	B	16.8 sec	B
9 Sierra College Boulevard/Granite Drive	0.579	A	0.700	B	0.728	C	0.606	B	0.763	C	0.807	D
10 Sierra College Boulevard/I-80 Westbound Ramps	20.3 sec	C	27.0 sec	C	33.0 sec	C	20.0 sec	C	28.6 sec	C	34.7 sec	C
11 Sierra College Boulevard/I-80 Eastbound Ramps	9.1 sec	A	12.9 sec	B	15.3 sec	B	13.1 sec	B	26.2 sec	C	36.1 sec	D
12 Sierra College Boulevard/Dominguez Road	-	-	-	-	-	-	-	-	-	-	-	-
13 Sierra College Boulevard/Rocklin Road ¹	0.774	C	0.779	C	0.726	C	0.791	C	0.836	D	0.809	D
14 Taylor Road/Horseshoe Bar Road ¹ (Loomis)	36.9 sec	D	43.4 sec	D	30.6 sec	C	37.2 sec	D ²	44.5 sec	D ²	31.1 sec	C
15 Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	19.1 sec	B	20.9 sec	C	22.3 sec	C	19.1 sec	B	21.2 sec	C	22.4 sec	C
16 Horseshoe Bar Road/I-80 Eastbound Ramps* ¹ (Loomis)	18.3 sec	C	22.0 sec	C	15.5 sec	C	18.7 sec	C	24.6 sec	C	16.9 sec	C
17 Barton Road/Brace Road* ¹ (Loomis)	10.7 sec	B	11.1 sec	B	11.3 sec	B	10.7 sec	B	11.2 sec	B	11.5 sec	B
18 Barton Road/Rocklin Road* ¹ (Loomis)	10.7 sec	B	12.0 sec	B	11.2 sec	B	11.0 sec	B	13.2 sec	B	12.7 sec	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	22.8 sec	C	36.3 sec	D	25.3 sec	C	23.1 sec	C	41.7 sec	D	26.8 sec	C
20 Sierra College Boulevard/English Colony Way* ¹ (Placer County)	11.5 sec	B	21.3 sec	C	16.3 sec	C	11.7 sec	B	24.0 sec	C	18.8 sec	C
21 Taylor Road/King Road ¹ (Loomis)	35.1 sec	D	31.8 sec	C	27.5 sec	C	35.2 sec	D ²	32.1 sec	C	27.9 sec	C

Notes:

- ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.
- * Indicates unsignalized intersection
- ¹ LOS C required for these intersections. LOS D acceptable for all other intersections.
- ² Project-related increase is less than 0.05 in V/C ratio or less than 5% of the total traffic at the intersection, therefore not a significant impact.

- Exceeds level of service criteria
- (Shade) = Significant Impact

Table K: Existing Plus Approved Projects (Baseline) Plus Project - Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	Existing Plus Approved						Existing Plus Approved Plus Project					
				Weekday			Saturday			Weekday			Saturday		
				Volume	V/C	LOS	Volume	V/C	LOS	Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	18,127	1.21	F	14,060	0.94	E	18,442	1.23	F	14,465	0.96	E
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	11,590	0.77	C	11,675	0.78	C	12,030	0.80	D	12,260	0.82	D
	Sierra College Boulevard and City Limits ¹ (Loomis)	Two-lane Collector	15,000	11,540	0.77	C	9,610	0.64	B	12,010	0.80	D	10,230	0.68	B
Pacific Street	City Limits and Dominguez Road ¹	Two-lane Collector	15,000	11,438	0.76	C	9,524	0.63	B	11,908	0.79	C	10,144	0.68	B
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	13,780	0.46	A	11,150	0.37	A	13,935	0.46	A	11,355	0.38	A
Rocklin Road	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	23,465	0.78	C	18,848	0.63	B	24,240	0.81	D	19,873	0.66	B
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	20,715	0.69	B	17,232	0.57	A	20,870	0.70	B	17,437	0.58	A
	Sierra College Boulevard and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	8,458	0.56	A	7,514	0.50	A	9,078	0.61	B	8,344	0.56	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	2,495	0.17	A	2,256	0.15	A	2,495	0.17	A	2,256	0.15	A
Horseshoe Bar Road	I-80 and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	7,882	0.53	A	6,974	0.46	A	8,092	0.54	A	7,244	0.48	A
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	5,203	0.35	A	5,305	0.35	A	5,453	0.36	A	5,645	0.38	A
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	4,695	0.31	A	4,649	0.31	A	4,825	0.32	A	4,819	0.32	A
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Two-lane Collector	15,000	17,403	1.16	F	15,628	1.04	F	18,793	1.25	F	17,488	1.17	F
	King Road and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	18,052	1.20	F	16,556	1.10	F	19,832	1.32	F	18,931	1.26	F
	Taylor Road and I-80	Four-lane Undivided Arterial	30,000	26,372	0.88	D	25,350	0.85	D	29,672	0.99	E	29,755	0.99	E
Granite Drive	I-80 and Dominguez Road ²	Four-lane Undivided Arterial	30,000	24,470	0.82	D	21,627	0.72	C	27,645	0.92	E	25,897	0.86	D
	Dominguez Road ² and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	23,447	0.78	C	20,341	0.68	B	26,232	0.87	D	24,056	0.80	D
	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	10,037	0.33	A	9,103	0.30	A	10,187	0.34	A	9,303	0.31	A
Dominguez Road	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	8,427	0.28	A	7,708	0.26	A	8,502	0.28	A	7,808	0.26	A
	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	2,533	0.17	A	1,349	0.09	A	2,533	0.17	A	1,349	0.09	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	7,445	0.50	A	6,217	0.41	A	7,525	0.50	A	6,317	0.42	A

Notes:

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

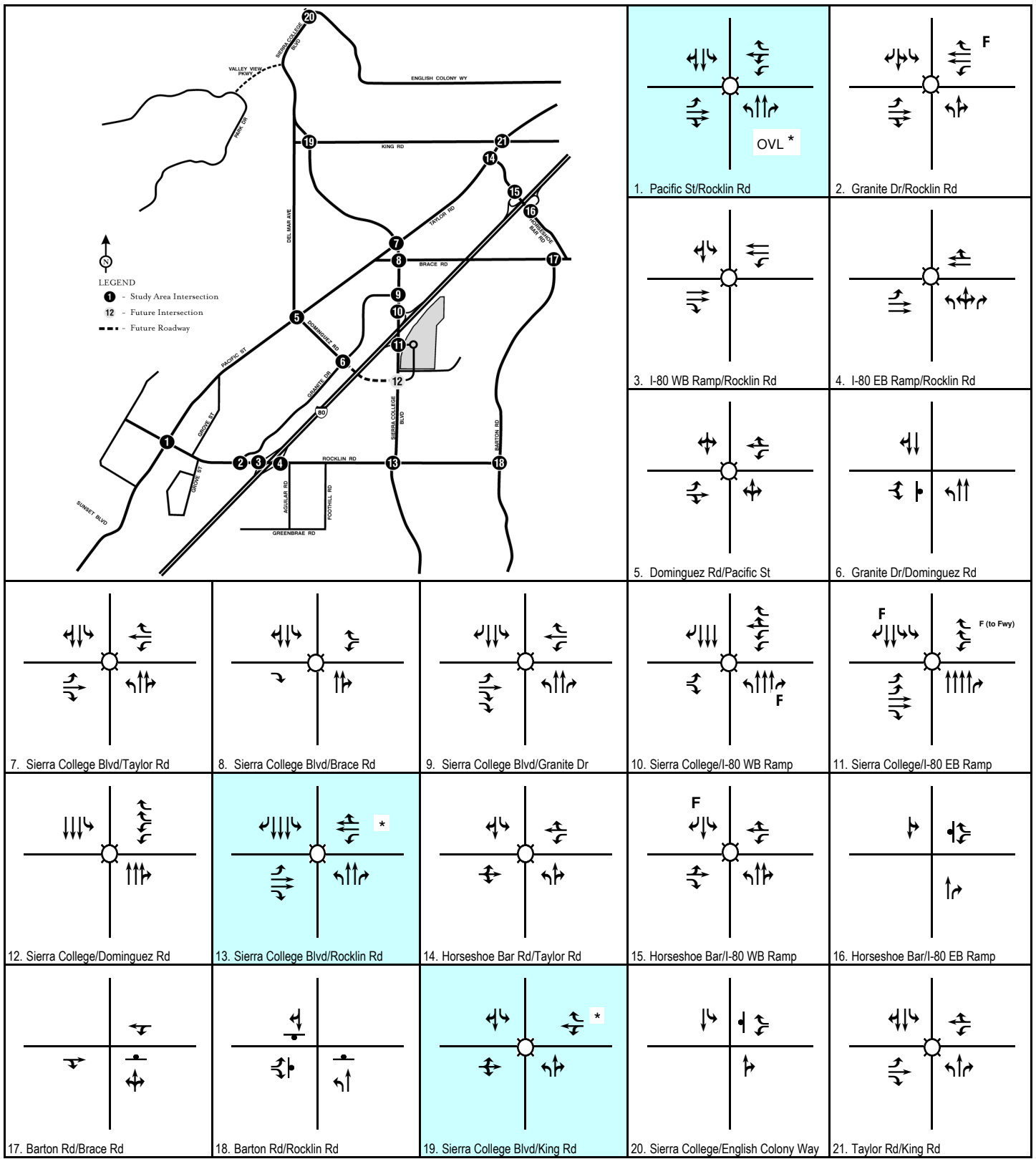
² Proposed location of the future extension of Dominguez Road.

Exceeds level of service criteria

Table L: Existing Plus Approved Projects (Baseline) Plus Project Peak Hour Roadway Segment Level of Service Summary

Roadway	Segment	Capacity	Existing + Approved			Existing + Approved + Project		
			Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)							
	A.M. Peak Hour Northbound	1,650	701	0.42	A	705	0.43	A
	A.M. Peak Hour Southbound	1,650	760	0.46	A	766	0.46	A
	P.M Peak Hour Northbound	1,650	889	0.54	A	905	0.55	A
	P.M Peak Hour Southbound	1,650	801	0.49	A	817	0.50	A
	Saturday Peak Hour Northbound	1,650	743	0.45	A	764	0.46	A
	Saturday Peak Hour Southbound	1,650	697	0.42	A	718	0.44	A
Taylor Road	Horseshoe Bar Rd and Sierra College Blvd (Loomis)							
	A.M. Peak Hour Eastbound	1,650	330	0.20	A	337	0.20	A
	A.M. Peak Hour Westbound	1,650	416	0.25	A	425	0.26	A
	P.M Peak Hour Eastbound	1,650	614	0.37	A	637	0.39	A
	P.M Peak Hour Westbound	1,650	505	0.31	A	526	0.32	A
	Saturday Peak Hour Eastbound	1,650	622	0.38	A	651	0.39	A
	Saturday Peak Hour Westbound	1,650	544	0.33	A	573	0.35	A
Taylor Road	Sierra College Blvd and City Limits (Loomis)							
	A.M. Peak Hour Eastbound	1,650	301	0.18	A	311	0.19	A
	A.M. Peak Hour Westbound	1,650	426	0.26	A	434	0.26	A
	P.M Peak Hour Eastbound	1,650	592	0.36	A	615	0.37	A
	P.M Peak Hour Westbound	1,650	433	0.26	A	457	0.28	A
	Saturday Peak Hour Eastbound	1,650	432	0.26	A	464	0.28	A
	Saturday Peak Hour Westbound	1,650	419	0.25	A	449	0.27	A
Sierra College Boulevard	English Colony Way and King Rd (Placer County)							
	A.M. Peak Hour Northbound	1,650	349	0.21	A	371	0.22	A
	A.M. Peak Hour Southbound	1,650	778	0.47	A	808	0.49	A
	P.M Peak Hour Northbound	1,650	953	0.58	A	1,024	0.62	B
	P.M Peak Hour Southbound	1,650	707	0.43	A	775	0.47	A
	Saturday Peak Hour Northbound	1,650	659	0.40	A	750	0.45	A
	Saturday Peak Hour Southbound	1,650	653	0.40	A	747	0.45	A
Sierra College Boulevard	King Rd and Taylor Rd (Loomis)							
	A.M. Peak Hour Northbound	1,650	337	0.20	A	366	0.22	A
	A.M. Peak Hour Southbound	1,650	779	0.47	A	817	0.50	A
	P.M Peak Hour Northbound	1,650	942	0.57	A	1,033	0.63	B
	P.M Peak Hour Southbound	1,650	675	0.41	A	762	0.46	A
	Saturday Peak Hour Northbound	1,650	662	0.40	A	779	0.47	A
	Saturday Peak Hour Southbound	1,650	657	0.40	A	778	0.47	A
Sierra College Boulevard	Taylor Rd and I-80							
	A.M. Peak Hour Northbound	3,300	569	0.17	A	623	0.19	A
	A.M. Peak Hour Southbound	3,300	975	0.30	A	1,046	0.32	A
	P.M Peak Hour Northbound	3,300	1,300	0.39	A	1,469	0.45	A
	P.M Peak Hour Southbound	3,300	988	0.30	A	1,149	0.35	A
	Saturday Peak Hour Northbound	3,300	1,121	0.34	A	1,338	0.41	A
	Saturday Peak Hour Southbound	3,300	1,026	0.31	A	1,250	0.38	A
Sierra College Boulevard	I-80 and Dominguez Rd							
	A.M. Peak Hour Northbound	3,300	671	0.20	A	735	0.22	A
	A.M. Peak Hour Southbound	3,300	1,258	0.38	A	1,310	0.40	A
	P.M Peak Hour Northbound	3,300	1,097	0.33	A	1,279	0.39	A
	P.M Peak Hour Southbound	3,300	1,000	0.30	A	1,155	0.35	A
	Saturday Peak Hour Northbound	3,300	979	0.30	A	1,224	0.37	A
	Saturday Peak Hour Southbound	3,300	966	0.29	A	1,173	0.36	A
Sierra College Boulevard	Dominguez Rd and Rocklin Rd							
	A.M. Peak Hour Northbound	3,300	608	0.18	A	662	0.20	A
	A.M. Peak Hour Southbound	3,300	744	0.23	A	784	0.24	A
	P.M Peak Hour Northbound	3,300	1,131	0.34	A	1,252	0.38	A
	P.M Peak Hour Southbound	3,300	903	0.27	A	1,030	0.31	A
	Saturday Peak Hour Northbound	3,300	952	0.29	A	1,120	0.34	A
	Saturday Peak Hour Southbound	3,300	826	0.25	A	988	0.30	A

Notes:
 Exceeds level of service criteria
 Significant Impact



LSA

Legend

○ Signal

⊥ Stop Sign

F Free Right Turn

* Proposed Mitigation

OVL - Overlap Phase

Existing Plus Approved Projects (Baseline) Plus Project Conditions - Mitigation

Rocklin Crossings

FIGURE 17

9. CUMULATIVE (2030) CONDITIONS

9.A. Development of Future Traffic Volumes

Traffic volume data for 2030 conditions were developed using forecasts from the City's most current travel demand model, updated in 2008. It should be noted that the current travel demand model includes land use and circulation system based on the City's proposed General Plan update. The cumulative analysis is based on the most current iteration of the City travel demand model. Funding for future circulation improvements will come from several sources, including, but not limited to, anticipated fee programs, new or updated fee programs and/or development exactions appropriate to the land uses proposed in the General Plan, City development fees, the SPRTA program, and other applicable funding programs. The 2030 projected traffic volumes for this analysis, as noted above, are based on the travel demand model based on the proposed updated City of Rocklin General Plan and the existing Town of Loomis General Plan and include assumptions about the level of build out by 2030 under each General Plan. The current General Plan travel demand model takes into account the relatively limited growth provided for in the City of Rocklin General Plan Update. The City of Rocklin is largely built out and the new General Plan does not expand the City's footprint. The model allows for modest growth, as well as anticipated traffic growth in the region based on other new developments. The General Plan travel demand model is a detailed version (within Rocklin and the surrounding areas) of the Placer County Travel Demand Model.

The City employs a traffic consultant (DKS Associates, Inc.) that maintains a travel demand model for the region (including the Town of Loomis). This travel demand model is validated (i.e., verified for accuracy of the forecast volumes) for a base year (2008) and a future year (2030) for the p.m. peak hour and daily only. These base-year and future-year models were obtained from the City's traffic consultant. Base-year and future-year p.m. peak-hour arterial segment volumes were forecast using the City's travel demand model. The base-year and future-year models are only used to obtain the growth increment between 2008 and 2030. This growth is then added to the existing (2010) turning movement counts to generate the future 2030 turning movement volumes. Turn movements for the p.m. peak hour were post-processed according to the methodology described below.

9.B. Intersection Turning Movements

For passenger vehicles, the base-year scenario in the City's travel demand model is 2008 and the future-year scenario is 2030. The following describes the methodology used to postprocess travel demand model volumes to develop a.m. and p.m. peak-hour intersection turn volumes for 2030 conditions:

1. The difference between the modeled 2008 and modeled 2030 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 22-year period. The incremental growth in peak-period approach and departure volumes between 2008 and 2030 was factored to develop the incremental change in peak-hour volumes.
2. The forecast growth in approach (toward the intersection) and departure (away from the intersection) volumes at an intersection from 2008 to 2030 was added to the existing approach and departure volumes, resulting in postprocessed 2030 approach and departure volumes. Volume development worksheets summarizing the steps are included in Appendix G.

3. Forecast 2030 turn volumes were developed using existing (2010) 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). NCHRP 255 worksheets are included in Appendix G.

The City's current travel demand model is not validated (verified for the accuracy of forecast volumes) for the a.m. peak hour and does not have forecasting capability for the Saturday peak hour. To validate the 2030 model a.m. peak-hour traffic volumes, the existing a.m. peak-hour traffic volumes were compared to the existing (2010) p.m. peak-hour traffic volumes and ratios between the existing (2010) a.m. and p.m. peak-hour volumes were calculated. In order to maintain the peak directionality, these ratios were then applied to the 2030 a.m. peak-hour model numbers. These adjusted 2030 a.m. peak-hour directional arterial traffic volumes were then used in the methodology described above in Step 1 to obtain the growth in traffic volumes during the a.m. peak hour. Similarly, to develop future intersection turn movements for the Saturday midday peak hour, the ratios of the existing p.m. peak-hour volumes to the Saturday peak-hour volumes were used. These ratios were applied to the postprocessed 2030 no project p.m. peak-hour traffic volumes to determine the 2030 no project Saturday peak-hour traffic volumes. Project trips were then manually added to the study area intersections to determine the 2030 plus project traffic volumes.

The 2030 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 over the freeway (just an overcrossing) to Sierra College Boulevard to form the fourth leg at the intersection of Sierra College Boulevard/Southern Project Driveway. 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. The Dominguez Road extension is in the City's Traffic Impact Fee and CIP and is included in the City's current General Plan, although no schedule exists for construction of the new segment. The analysis of "with Dominguez Road" conditions is provided in the Special Issues section.

9.C. 2030 No Project Without Dominguez Road

Weekday and Saturday peak-hour forecast traffic volumes for the 2030 no project without Dominguez Road scenario are shown on Figures 18 and 19, respectively. The LOS for study area intersections and roadway segments are shown in Tables M and N. The 2030 no project without Dominguez Road traffic volume development and LOS worksheets are provided in Appendix G. All 2030 LOS include the roadway improvements assumed in the baseline condition as well as implementation of the City's proposed General Plan roadway system, as documented in the City's General Plan Circulation Element. Consistent with the City's General Plan, the Town of Loomis' General Plan, and the Horseshoe Bar/Penryn Community Plans, the traffic analysis for the cumulative conditions (2030) assumes that Sierra College Boulevard would be widened to a four-lane arterial between English Colony Way and just north of Taylor Road and to a six-lane arterial between just north of Taylor Road and El Don Drive.

The 2030 intersection geometrics and traffic control are shown on Figure 20. As shown in Table M, the following 10 intersections are forecast to operate at unsatisfactory LOS in the 2030 no project without Dominguez Road condition:

- Rocklin Road/Pacific Street
- Rocklin Road/I-80 eastbound ramps
- Dominguez Road/Pacific Street
- Sierra College Boulevard/Taylor Road (Loomis)
- Sierra College Boulevard/Granite Drive
- Sierra College Boulevard/Rocklin Road
- Taylor Road/Horseshoe Bar Road (Loomis)
- Horseshoe Bar Road/I-80 eastbound ramps (Loomis)
- Sierra College Boulevard/English Colony Way (Placer County)
- Taylor Road/King Road (Loomis)

For roadway segments Tables N and N2 show that application of the two-step procedure, first evaluating daily volume to capacity and then, if necessary, peak hour directional volume to capacity, results in no exceedances of LOS standards. While six roadway segments exceeded daily capacities, the peak hour directional analysis confirmed that these six segments will operate at acceptable LOS.

9.D. 2030 plus Project Without Dominguez Road

Traffic volumes generated by the proposed project were added to the 2030 no project traffic volumes, and LOS were calculated for the 2030 plus project scenario. Weekday and Saturday peak-hour forecast traffic volumes for the 2030 plus project without Dominguez Road scenario are shown on Figures 21 and 22. The LOS for study area intersections and roadway segments in the 2030 plus project without Dominguez Road scenario are shown in Tables O and P. The 2030 plus project without Dominguez Road LOS worksheets are provided in Appendix H.

As shown in Table O, the following four intersections operate at unsatisfactory LOS and are significantly impacted in the 2030 plus project without Dominguez Road scenario:

- The intersection of Rocklin Road/I-80 westbound ramps is projected to operate at LOS D in the no project condition during a.m. peak hour. Addition of the project traffic deteriorates the operation of this intersection to LOS E (unacceptable) in with project condition. Since the LOS at this intersection changes from an acceptable LOS D (in no project condition) to an unacceptable LOS E (in with project condition), the project impact at this intersection is significant.
- The intersection of Sierra College Boulevard/Taylor Road (Loomis) is projected to operate at LOS C during p.m. peak hour and Saturday peak hour in the no project condition. Addition of the project traffic deteriorates the operation of this intersection to LOS D (unacceptable) in with project condition. Since the LOS at this intersection changes from an acceptable LOS C (in no

project condition) to an unacceptable LOS D (in with project condition), the project impact at this intersection is significant.

- The intersection of Barton Road/Rocklin Road (Loomis) is projected to operate at LOS C in the no project condition during a.m. peak hour. Addition of the project traffic deteriorates the operation of this intersection to LOS D (unacceptable) in with project condition. Since the LOS at this intersection changes from an acceptable LOS C (in no project condition) to an unacceptable LOS D (in with project condition), the project impact at this intersection is significant.
- The intersection of Sierra College Boulevard/English Colony Way (Placer County) is projected to operate at LOS D during the Saturday peak hour in the no project condition. Addition of the project traffic will further deteriorate the condition of this intersection in the with project condition. Since the intersection is already operating at unsatisfactory LOS and the project adds more than 5 percent of the total traffic at this unsignalized intersection the project impact at this location is significant.

For roadway segments, Tables P and Q show that application of the two-step procedure, first evaluating daily volume to capacity and then, if necessary, peak hour directional volume to capacity, results in no project impacts. While six roadway segments exceeded daily capacities, the peak hour directional analysis confirmed that these six segments will operate at acceptable LOS.

Recommended Mitigation: 2030 Plus Project Without Dominguez Road

- **Rocklin Road/I-80 Westbound Ramps:** The project would add significant traffic to this location, which is projected to operate at an acceptable LOS D during the a.m. peak hour. The City has completed a feasibility study that identified three alternatives for improving the intersection of Rocklin Road/I-80 westbound ramps. One of the alternatives provides a flyover from westbound Rocklin Road to the I-80 westbound on ramp. Once the selected (preferred) interchange design is implemented it will mitigate the impact at this location. *Payment of the City's traffic fee and SPRTA fee as the means of funding the project's fair share to the City's cost for implementing one of the identified three alternatives included in the feasibility study completed by the City for improving the intersection of Rocklin Road/I-80 westbound ramps.* However, implementation requires the selection of a final design option, review and approval of Caltrans of the improvement plans, acquisition of right-of-way, and construction of the project improvements. Until such time as the improvement design selection process is complete and Caltrans has approved the interchange reconstruction improvements, the City conservatively concludes that, at the time of action by its City Council, the impact would be treated as **significant and unavoidable**.
- **Sierra College Boulevard/Taylor Road (Loomis):** The project would significantly impact this intersection during the p.m. peak hour and Saturday peak hour. *Adding a westbound left-turn lane (resulting in a dual left-turn lane) and an eastbound right-turn overlap phase would mitigate the project's impact. The dual westbound left-turn lanes can be accommodated within the existing right-of-way by restriping the exclusive westbound through and right-turn lanes to a through right lane.* Because the Town of Loomis controls what occurs at the intersection, however, and because the City is uncertain as to whether the Town would be willing to cooperate in construction of the contemplated improvement within a reasonable period of time (i.e., prior to the issuance of occupancy permits), the City conservatively concludes that, at the time of action by the City Council, the impact would be treated as **significant and unavoidable**, given that the

City has no control over the Town of Loomis. Consistent with CEQA Guidelines Section 15091, Subdivision (a)(2), however, the City concludes that the Town of Loomis can and should cooperate with the City in implementing the mitigation.

- **Barton Road/Rocklin Road (Loomis):** The proposed project would add significant traffic to this location and would degrade it to unacceptable LOS during the a.m. peak hour. The intersection is forecast to meet the peak-hour traffic signal warrant. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. *Signalization of this intersection would result in satisfactory LOS. To mitigate the project's contribution to traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal.* Because the Town of Loomis controls what occurs at the intersection, however, and because the City is uncertain as to whether the Town would be willing to cooperate in construction of the contemplated improvement within a reasonable period of time, the City conservatively concludes that, at the time of action by the City Council, the impact would be treated as **significant and unavoidable**, given that the City has no control over the Town of Loomis and thus cannot assume that the improvements contemplated by the mitigation will be implemented. Consistent with CEQA Guidelines Section 15091, Subdivision (a)(2), however, the City concludes that the Town of Loomis can and should cooperate with the City in implementing the mitigation.
- **Sierra College Boulevard/English Colony Way (Placer County):** The project would significantly impact this intersection during the Saturday midday peak hour. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2030 no project without Dominguez Road scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. *Signalization of this intersection would mitigate the project's impact at this location. To mitigate the project's contribution to traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal.* The payment of fair share would be considered as mitigation only if the County is able to demonstrate to the City's satisfaction that the County's Capital Improvement Program covers or will cover the contemplated improvements such that a fair share payment will actually result in construction of the contemplated improvement within a reasonable period of time (i.e., prior to the issuance of building permits). Because the County of Placer controls what occurs at the intersection, however, and because the City is uncertain as to whether the County's CIP will ensure that any fair-share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the City conservatively concludes that, at the time of action by the City Council, the impact would be treated as **significant and unavoidable**, given that the City has no control over the County and thus cannot assume that the improvements contemplated by the mitigation will be implemented. Consistent with CEQA Guidelines Section 15091, Subdivision (a)(2), however, the City concludes that the County can and should cooperate with the City in implementing the mitigation.

As seen in Table O, although the intersections of Rocklin Road/Pacific Street, Rocklin Road/I-80 eastbound ramps, Dominguez Road/Pacific Street, Sierra College Boulevard/Granite Drive, Sierra College Boulevard/Rocklin Road, Taylor Road/Horseshoe Bar Road, Horseshoe Bar Road/I-80 eastbound ramps, and Taylor Road/King Road operate at unsatisfactory LOS in the 2030 plus project without Dominguez Road scenario, the project would not increase the v/c ratio by 0.05 at the signalized intersections analyzed using Circular 212 methodology and would not add more than 5 percent of the total traffic at signalized and unsignalized intersections analyzed using HCM

methodology. As a result, the project's contribution to traffic at these intersections is not considered a significant impact.

The proposed mitigations for the 2030 plus project without Dominguez Road scenario are shown on Figure 23. Per the Town of Loomis¹ and Horseshoe Bar/Penryn Community Plan, Sierra College Boulevard is planned to be widened to a four-lane arterial from north of English Colony Way to Taylor Road. Additionally, based on information obtained from Brian Fragio, the Town of Loomis has proposed a signal installation at the intersection of Barton Road/Rocklin Road which is estimated to occur by 2015.

¹ Brian Fragio, Town of Loomis. Personal communication, August 17, 2010.

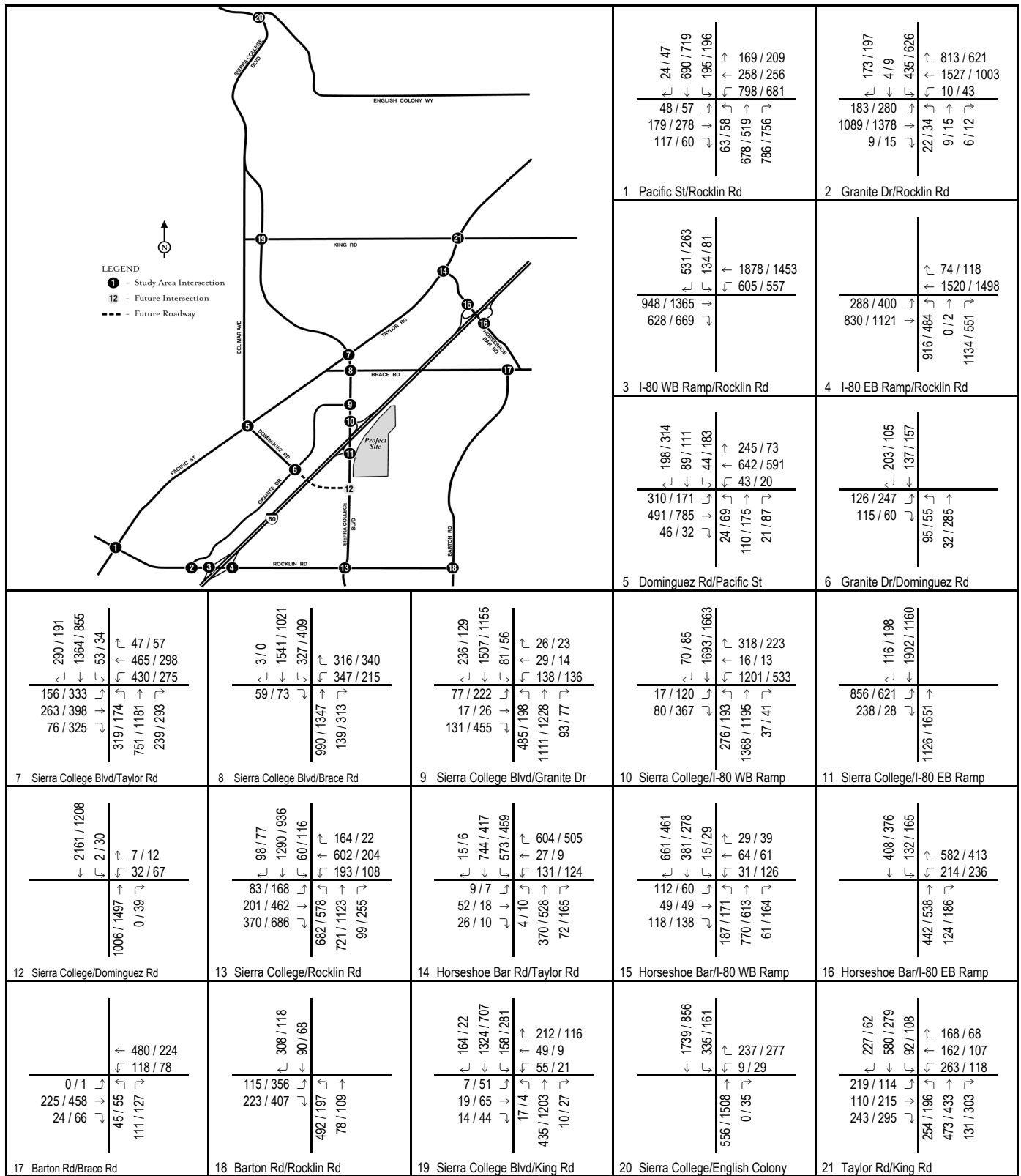


FIGURE 18

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings

Year 2030 No Project Peak Hour Traffic Volumes - Without Dominguez Road

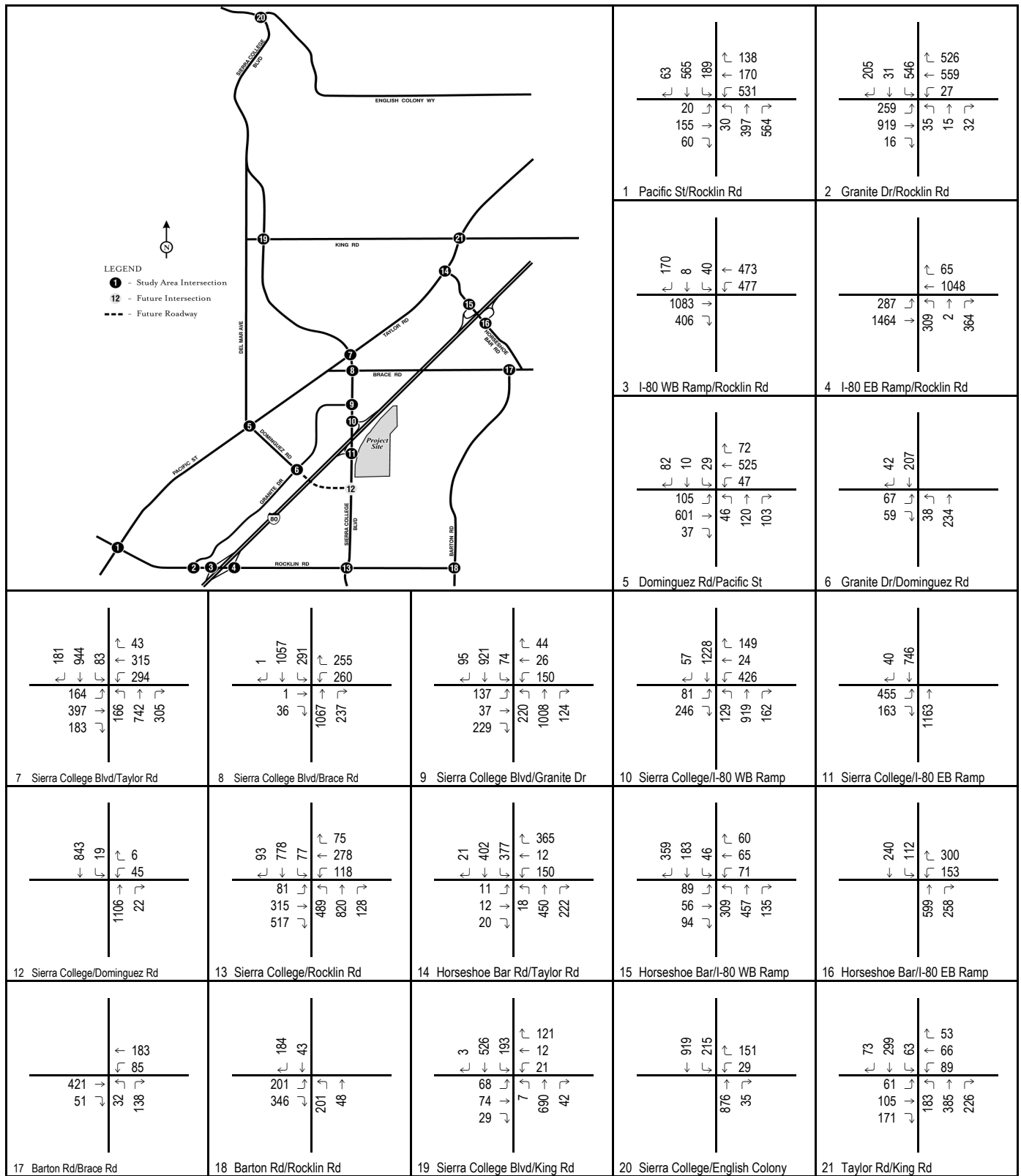
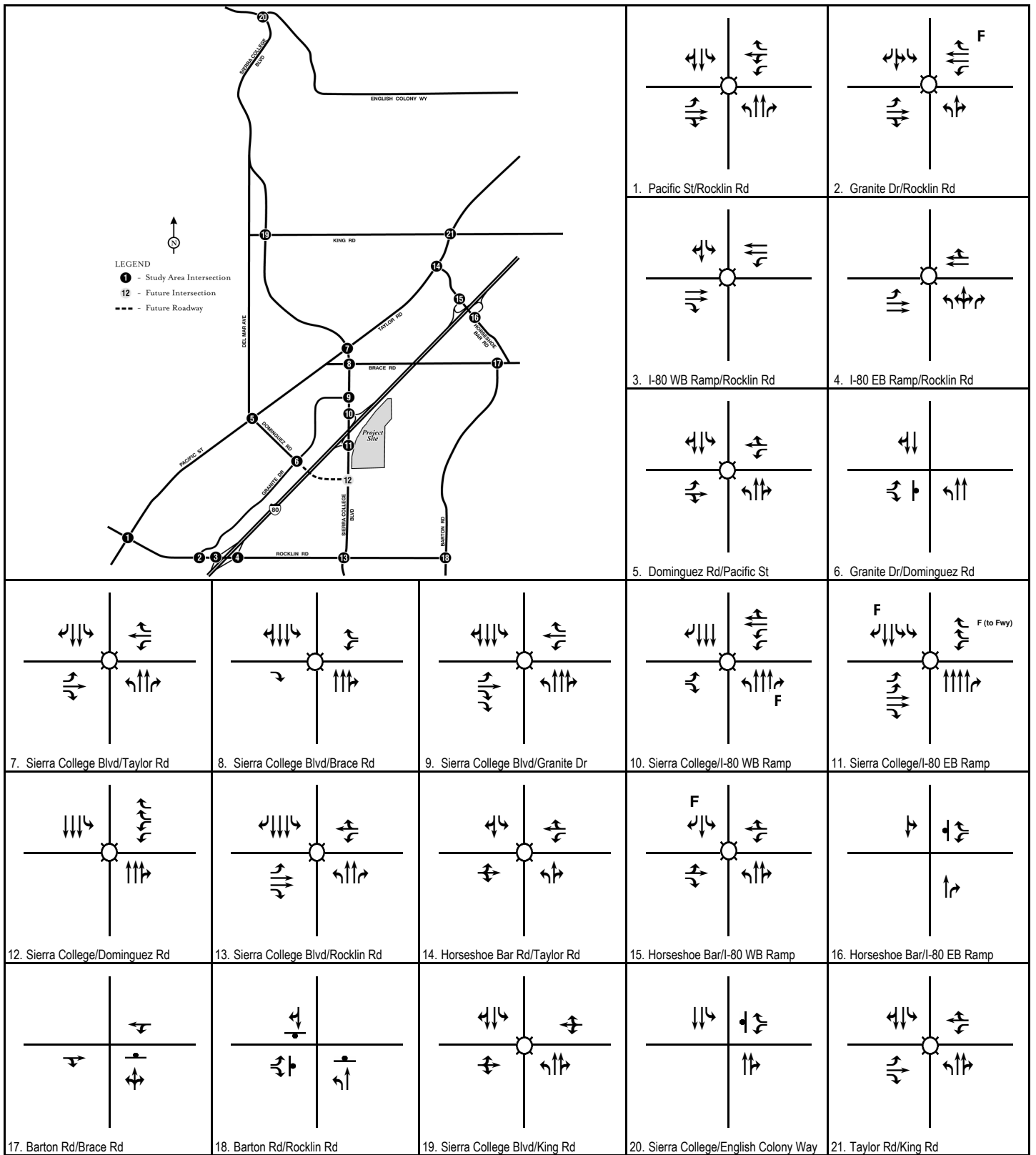


FIGURE 19

Rocklin Crossings

Year 2030 No Project Saturday Peak Hour Traffic Volumes - Without Dominguez Road



LSA

- Legend
- Signal
- Stop Sign
- F Free Right Turn

FIGURE 20

Rocklin Crossings
Year 2030 Geometrics and Traffic Control

Table M: 2030 No Project without Dominguez Road Condition Peak Hour Intersection Level of Service Summary

Intersection		2030 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	1.234	F	1.181	F	0.900	E
2	Rocklin Road/Granite Drive	0.880	D	0.847	D	0.655	B
3	Rocklin Road/I-80 Westbound Ramps	54.5 sec	D	30.8 sec	C	24.1 sec	C
4	Rocklin Road/I-80 Eastbound Ramps	66.2 sec	E	47.0 sec	D	21.5 sec	C
5	Dominguez Road/Pacific Street ¹	0.996	E	0.855	D	0.591	A
6	Dominguez Road/Granite Drive* ¹	12.2 sec	B	16.5 sec	C	10.9 sec	B
7	Sierra College Boulevard/Taylor Road ¹ (Loomis)	54.3 sec	D	34.9 sec	C	34.4 sec	C
8	Sierra College Boulevard/Brace Road ¹ (Loomis)	23.9 sec	C	27.6 sec	C	22.2 sec	C
9	Sierra College Boulevard/Granite Drive	0.928	E	0.736	C	0.607	B
10	Sierra College Boulevard/I-80 Westbound Ramps	52.8 sec	D	50.6 sec	D	35.2 sec	D
11	Sierra College Boulevard/I-80 Eastbound Ramps	32.6 sec	C	16.1 sec	B	11.7 sec	B
12	Sierra College Boulevard/Dominguez Road	0.518	A	0.406	A	0.295	A
13	Sierra College Boulevard/Rocklin Road ¹	1.426	F	1.225	F	1.006	F
14	Taylor Road/Horseshoe Bar Road ¹ (Loomis)	56.5 sec	E	55.9 sec	E	36.6 sec	D
15	Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	18.9 sec	B	20.1 sec	C	21.7 sec	C
16	Horseshoe Bar Road/I-80 Eastbound Ramps* ^{1,2} (Loomis)	67.6 sec	F	121.1 sec	F	32.0 sec	D
17	Barton Road/Brace Road* ^{1,2} (Loomis)	15.1 sec	C	18.1 sec	C	14.9 sec	B
18	Barton Road/Rocklin Road* ^{1,2} (Loomis)	24.8 sec	C	15.3 sec	C	12.2 sec	B
19	Sierra College Boulevard/King Road ¹ (Loomis)	20.3 sec	C	20.1 sec	C	20.3 sec	C
20	Sierra College Boulevard/English Colony Way* ^{1,2} (Placer County)	17.2 sec	C	86.1 sec	F	30.5 sec	D
21	Taylor Road/King Road ¹ (Loomis)	37.0 sec	D	31.0 sec	C	28.1 sec	C

Notes:

ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.

* Indicates unsignalized intersection

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

Exceeds level of service criteria

Table N: 2030 No Project Without Dominguez Road Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	Volume	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	18,245	1.22	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	16,376	1.09	F
	Sierra College Boulevard and City Limits ¹ (Loomis)	Two-lane Collector	15,000	20,873	1.39	F
Pacific Street	City Limits and Dominguez Road ¹	Four-lane Undivided Arterial	30,000	20,540	0.68	B
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	20,401	0.68	B
Rocklin Road	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	33,574	1.12	F
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	24,356	0.81	D
	Sierra College Boulevard and Barton Road ¹ (Loomis)	Four-lane Undivided Arterial	30,000	13,027	0.43	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	3,722	0.25	A
Horseshoe Bar Road	I-80 and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	10,317	0.69	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	9,665	0.64	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	10,226	0.68	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Four-lane Undivided Arterial	30,000	30,099	1.00	F
	King Road and Taylor Road ¹ (Loomis)	Four-lane Undivided Arterial	30,000	24,229	0.81	D
	Taylor Road and I-80	Six-lane Arterial	50,525	38,869	0.77	C
	I-80 and Dominguez Road	Six-lane Arterial	50,525	37,914	0.75	C
	Dominguez Road and Rocklin Road ¹	Six-lane Arterial	50,525	36,704	0.73	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	14,336	0.48	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	9,332	0.31	A
Dominguez Road	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	6,078	0.41	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	6,636	0.44	A

Notes:

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

Exceeds level of service criteria



Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Penryn Community Plan.

**Table N2: 2030 No Project Without Dominguez Road
Peak Hour Roadway Segment Level of Service Summary**

Roadway	Segment	Capacity	2030 No Project		
			Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)				
	A.M. Peak Hour Northbound	1,650	921	0.56	A
	A.M. Peak Hour Southbound	1,650	1,209	0.73	C
	P.M Peak Hour Northbound	1,650	986	0.60	A
	P.M Peak Hour Southbound	1,650	787	0.48	A
	Saturday Peak Hour Northbound	1,650	810	0.49	A
	Saturday Peak Hour Southbound	1,650	680	0.41	A
Taylor Road	Horseshoe Bar Rd and Sierra College Blvd (Loomis)				
	A.M. Peak Hour Eastbound	1,650	500	0.30	A
	A.M. Peak Hour Westbound	1,650	922	0.56	A
	P.M Peak Hour Eastbound	1,650	709	0.43	A
	P.M Peak Hour Westbound	1,650	591	0.36	A
	Saturday Peak Hour Eastbound	1,650	738	0.45	A
	Saturday Peak Hour Westbound	1,650	600	0.36	A
Taylor Road	Sierra College Blvd and City Limits (Loomis)				
	A.M. Peak Hour Eastbound	1,650	526	0.32	A
	A.M. Peak Hour Westbound	1,650	1,002	0.61	B
	P.M Peak Hour Eastbound	1,650	1,056	0.64	B
	P.M Peak Hour Westbound	1,650	674	0.41	A
	Saturday Peak Hour Eastbound	1,650	739	0.45	A
	Saturday Peak Hour Westbound	1,650	653	0.40	A
Rocklin Road	Pacific St and Granite Dr				
	A.M. Peak Hour Eastbound	3,300	1,221	0.37	A
	A.M. Peak Hour Westbound	3,300	1,474	0.45	A
	P.M Peak Hour Eastbound	3,300	1,452	0.44	A
	P.M Peak Hour Westbound	3,300	1,190	0.36	A
	Saturday Peak Hour Eastbound	3,300	1,051	0.32	A
	Saturday Peak Hour Westbound	3,300	819	0.25	A
Sierra College Boulevard	English Colony Way and King Rd (Placer County)				
	A.M. Peak Hour Northbound	3,300	605	0.18	A
	A.M. Peak Hour Southbound	3,300	1,697	0.51	A
	P.M Peak Hour Northbound	3,300	1,457	0.44	A
	P.M Peak Hour Southbound	3,300	948	0.29	A
	Saturday Peak Hour Northbound	3,300	895	0.27	A
	Saturday Peak Hour Southbound	3,300	835	0.25	A
Sierra College Boulevard	King Rd and Taylor Rd (Loomis)				
	A.M. Peak Hour Northbound	3,300	708	0.21	A
	A.M. Peak Hour Southbound	3,300	1,550	0.47	A
	P.M Peak Hour Northbound	3,300	1,403	0.43	A
	P.M Peak Hour Southbound	3,300	926	0.28	A
	Saturday Peak Hour Northbound	3,300	844	0.26	A
	Saturday Peak Hour Southbound	3,300	892	0.27	A

Notes:
 Exceeds level of service criteria
 Significant Impact

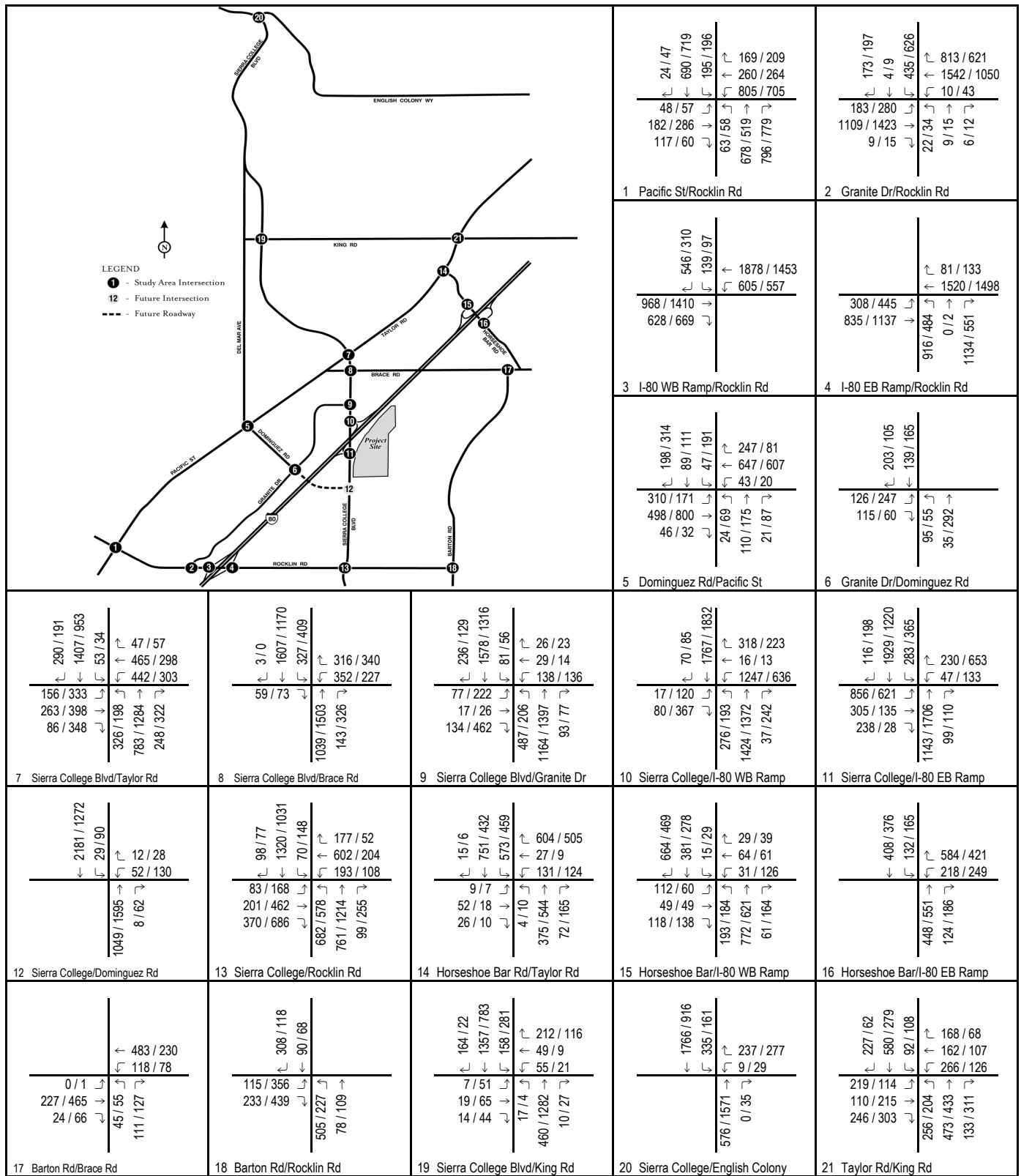


FIGURE 21

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings

Year 2030 Plus Project Peak Hour Traffic Volumes - Without Dominguez Road

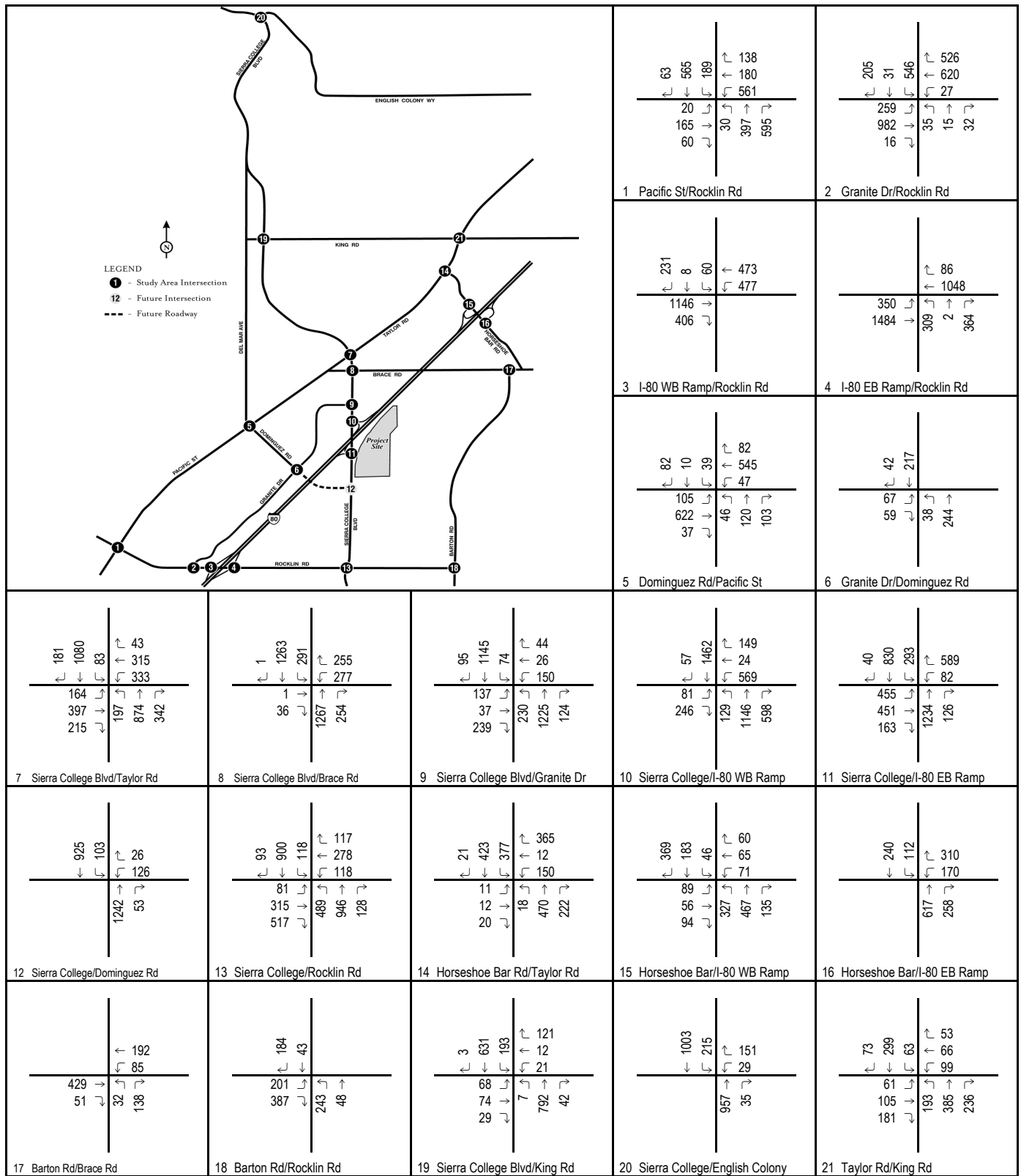


FIGURE 22

Rocklin Crossings

Year 2030 Plus Project Saturday Peak Hour Traffic Volumes - Without Dominguez Road

Table O: 2030 Plus Project without Dominguez Road Condition Peak Hour Intersection Level of Service Summary

Intersection	2030 No Project without Dominguez Road Condition						2030 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	1.234	F	1.181	F	0.900	E	1.246	F ²	1.213	F ²	0.942	E ²
2 Rocklin Road/Granite Drive	0.880	D	0.847	D	0.655	B	0.885	D	0.864	D	0.678	B
3 Rocklin Road/I-80 Westbound Ramps	54.5 sec	D	30.8 sec	C	24.1 sec	C	56.4 sec	E	35.9 sec	D	26.9 sec	C
4 Rocklin Road/I-80 Eastbound Ramps	66.2 sec	E	47.0 sec	D	21.5 sec	C	70.4 sec	E ²	53.0 sec	D	22.4 sec	C
5 Dominguez Road/Pacific Street ¹	0.996	E	0.855	D	0.591	A	1.001	F ²	0.872	D ²	0.619	B
6 Dominguez Road/Granite Drive* ¹	12.2 sec	B	16.5 sec	C	10.9 sec	B	12.2 sec	B	16.8 sec	C	11.0 sec	B
7 Sierra College Boulevard/Taylor Road ¹ (Loomis)	54.3 sec	D	34.9 sec	C	34.4 sec	C	57.9 sec	E ²	37.6 sec	D	37.7 sec	D
8 Sierra College Boulevard/Brace Road ¹ (Loomis)	23.9 sec	C	27.6 sec	C	22.2 sec	C	24.0 sec	C	28.3 sec	C	22.1 sec	C
9 Sierra College Boulevard/Granite Drive	0.928	E	0.736	C	0.607	B	0.948	E ²	0.784	C	0.673	B
10 Sierra College Boulevard/I-80 Westbound Ramps	52.8 sec	D	50.6 sec	D	35.2 sec	D	54.9 sec	D	48.8 sec	D	45.5 sec	D
11 Sierra College Boulevard/I-80 Eastbound Ramps	32.6 sec	C	16.1 sec	B	11.7 sec	B	26.7 sec	C	52.7 sec	D	19.6 sec	B
12 Sierra College Boulevard/Dominguez Road	0.518	A	0.406	A	0.295	A	0.530	A	0.501	A	0.424	A
13 Sierra College Boulevard/Rocklin Road ¹	1.426	F	1.225	F	1.006	F	1.443	F ²	1.248	F ²	1.036	F ²
14 Taylor Road/Horseshoe Bar Road ¹ (Loomis)	56.5 sec	E	55.9 sec	E	36.6 sec	D	57.0 sec	E ²	57.3 sec	E ²	37.4 sec	D ²
15 Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	18.9 sec	B	20.1 sec	C	21.7 sec	C	19.0 sec	B	20.1 sec	C	21.6 sec	C
16 Horseshoe Bar Road/I-80 Eastbound Ramps* ^{1,3} (Loomis)	67.6 sec	F	121.1 sec	F	32.0 sec	D	71.9 sec	F ²	141.9 sec	F ²	38.5 sec	E ²
17 Barton Road/Brace Road* ^{1,3} (Loomis)	15.1 sec	C	18.1 sec	C	14.9 sec	B	15.2 sec	C	18.3 sec	C	15.1 sec	C
18 Barton Road/Rocklin Road* ^{1,3} (Loomis)	24.8 sec	C	15.3 sec	C	12.2 sec	B	27.0 sec	D	16.5 sec	C	13.5 sec	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	20.3 sec	C	20.1 sec	C	20.3 sec	C	20.3 sec	C	19.9 sec	B	19.3 sec	B
20 Sierra College Boulevard/English Colony Way* ^{1,3} (Placer County)	17.2 sec	C	86.1 sec	F	30.5 sec	D	17.7 sec	C	105.3 sec	F ²	38.7 sec	E
21 Taylor Road/King Road ¹ (Loomis)	37.0 sec	D	31.0 sec	C	28.1 sec	C	37.2 sec	D ²	31.3 sec	C	28.5 sec	C

Notes:

ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.

* Indicates unsignalized intersection

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

² Project-related increase is less than 0.05 in V/C ratio or less than 5% of the total traffic at the intersection, therefore not a significant impact.

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

^{*} Delay exceeds 1000 seconds

☐ Exceeds level of service criteria

▒ (Shade) = Significant Impact

Table P: 2030 Plus Project Without Dominguez Road Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	2030 No Project			2030 Plus Project		
				Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	18,245	1.22	F	18,560	1.24	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	16,376	1.09	F	16,816	1.12	F
	Sierra College Boulevard and City Limits ¹ (Loomis)	Two-lane Collector	15,000	20,873	1.39	F	21,343	1.42	F
Pacific Street	City Limits and Dominguez Road ¹	Four-lane Undivided Arterial	30,000	20,540	0.68	B	21,010	0.70	B
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	20,401	0.68	B	20,556	0.69	B
Rocklin Road	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	33,574	1.12	F	34,349	1.14	F
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	24,356	0.81	D	24,511	0.82	D
	Sierra College Boulevard and Barton Road ¹ (Loomis)	Four-lane Undivided Arterial	30,000	13,027	0.43	A	13,647	0.45	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	3,722	0.25	A	3,722	0.25	A
Horseshoe Bar Road	I-80 and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	10,317	0.69	B	10,527	0.70	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	9,665	0.64	B	9,915	0.66	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	10,226	0.68	B	10,356	0.69	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Four-lane Undivided Arterial	30,000	30,099	1.00	F	31,489	1.05	F
	King Road and Taylor Road ¹ (Loomis)	Four-lane Undivided Arterial	30,000	24,229	0.81	D	26,009	0.87	D
	Taylor Road and I-80	Six-lane Arterial	50,525	38,869	0.77	C	42,169	0.83	D
	I-80 and Dominguez Road	Six-lane Arterial	50,525	37,914	0.75	C	41,089	0.81	D
	Dominguez Road and Rocklin Road ¹	Six-lane Arterial	50,525	36,704	0.73	C	39,489	0.78	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	14,336	0.48	A	14,486	0.48	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	9,332	0.31	A	9,407	0.31	A
Dominguez Road	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	6,078	0.41	A	6,078	0.41	A
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	6,636	0.44	A	6,716	0.45	A

Notes:

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

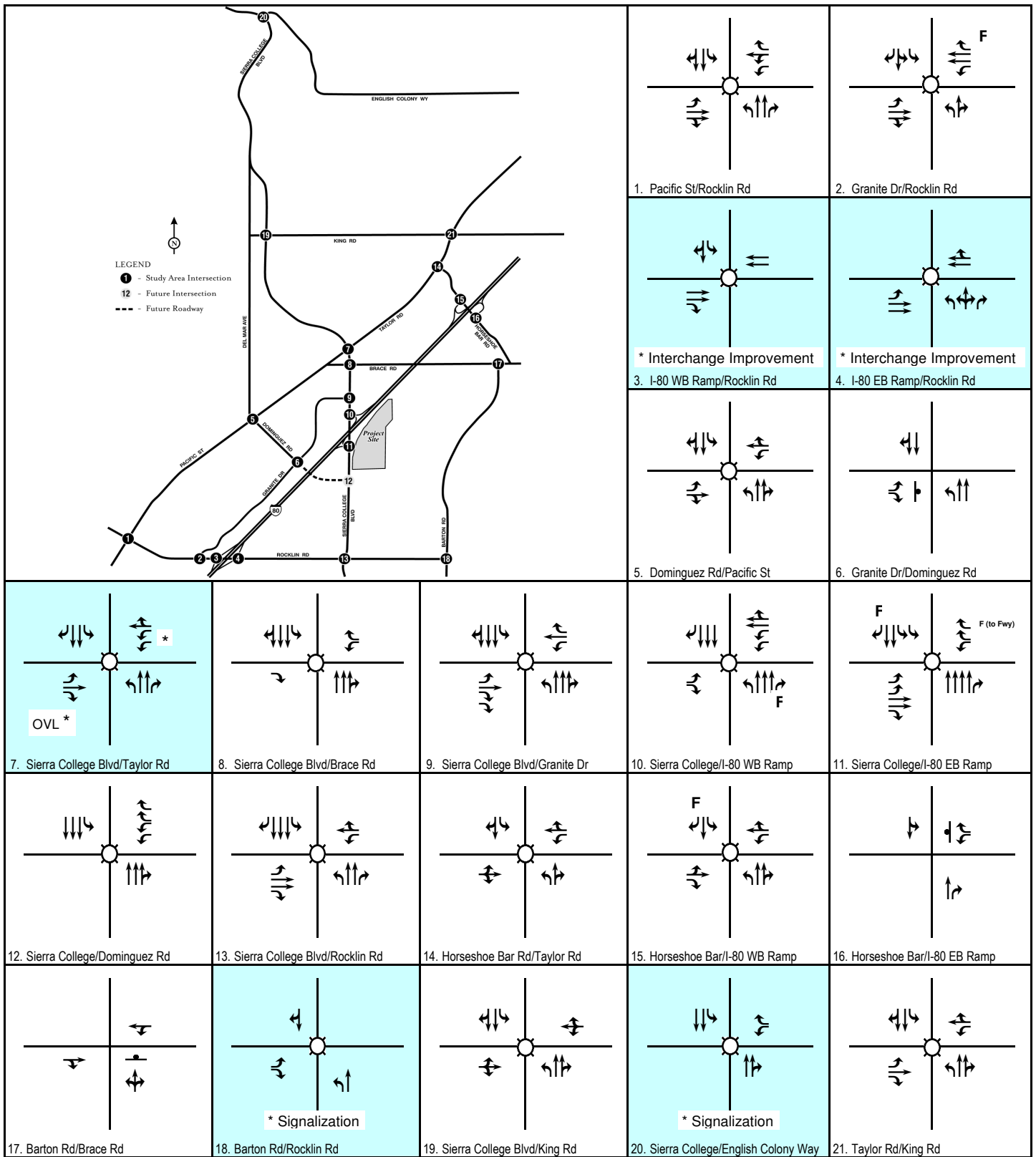
Exceeds level of service criteria



Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Penryn Community Plan.

**Table Q: 2030 Plus Project Without Dominguez Road
Peak Hour Roadway Segment Level of Service Summary**

Roadway	Segment	Capacity	2030 No Project			2030 Plus Project		
			Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)							
	A.M. Peak Hour Northbound	1,650	921	0.56	A	925	0.56	A
	A.M. Peak Hour Southbound	1,650	1,209	0.73	C	1,216	0.74	C
	P.M. Peak Hour Northbound	1,650	986	0.60	A	1,002	0.61	B
	P.M. Peak Hour Southbound	1,650	787	0.48	A	803	0.49	A
	Saturday Peak Hour Northbound	1,650	810	0.49	A	829	0.50	A
	Saturday Peak Hour Southbound	1,650	680	0.41	A	700	0.42	A
Taylor Road	Horseshoe Bar Rd and Sierra College Blvd (Loomis)							
	A.M. Peak Hour Eastbound	1,650	500	0.30	A	508	0.31	A
	A.M. Peak Hour Westbound	1,650	922	0.56	A	931	0.56	A
	P.M. Peak Hour Eastbound	1,650	709	0.43	A	737	0.45	A
	P.M. Peak Hour Westbound	1,650	591	0.36	A	612	0.37	A
	Saturday Peak Hour Eastbound	1,650	738	0.45	A	766	0.46	A
	Saturday Peak Hour Westbound	1,650	600	0.36	A	642	0.39	A
Taylor Road	Sierra College Blvd and City Limits (Loomis)							
	A.M. Peak Hour Eastbound	1,650	526	0.32	A	536	0.32	A
	A.M. Peak Hour Westbound	1,650	1,002	0.61	B	1,009	0.61	B
	P.M. Peak Hour Eastbound	1,650	1,056	0.64	B	1,079	0.65	B
	P.M. Peak Hour Westbound	1,650	674	0.41	A	698	0.42	A
	Saturday Peak Hour Eastbound	1,650	739	0.45	A	770	0.47	A
	Saturday Peak Hour Westbound	1,650	653	0.40	A	684	0.41	A
Rocklin Road	Pacific St and Granite Dr							
	A.M. Peak Hour Eastbound	3,300	1,221	0.37	A	1,237	0.37	A
	A.M. Peak Hour Westbound	3,300	1,474	0.45	A	1,486	0.45	A
	P.M. Peak Hour Eastbound	3,300	1,452	0.44	A	1,490	0.45	A
	P.M. Peak Hour Westbound	3,300	1,190	0.36	A	1,230	0.37	A
	Saturday Peak Hour Eastbound	3,300	1,051	0.32	A	1,103	0.33	A
	Saturday Peak Hour Westbound	3,300	819	0.25	A	870	0.26	A
Sierra College Boulevard	English Colony Way and King Rd (Placer County)							
	A.M. Peak Hour Northbound	3,300	605	0.18	A	628	0.19	A
	A.M. Peak Hour Southbound	3,300	1,697	0.51	A	1,727	0.52	A
	P.M. Peak Hour Northbound	3,300	1,457	0.44	A	1,528	0.46	A
	P.M. Peak Hour Southbound	3,300	948	0.29	A	1,016	0.31	A
	Saturday Peak Hour Northbound	3,300	895	0.27	A	987	0.30	A
	Saturday Peak Hour Southbound	3,300	835	0.25	A	930	0.28	A
Sierra College Boulevard	King Rd and Taylor Rd (Loomis)							
	A.M. Peak Hour Northbound	3,300	708	0.21	A	737	0.22	A
	A.M. Peak Hour Southbound	3,300	1,550	0.47	A	1,588	0.48	A
	P.M. Peak Hour Northbound	3,300	1,403	0.43	A	1,494	0.45	A
	P.M. Peak Hour Southbound	3,300	926	0.28	A	1,013	0.31	A
	Saturday Peak Hour Northbound	3,300	844	0.26	A	961	0.29	A
	Saturday Peak Hour Southbound	3,300	892	0.27	A	1,013	0.31	A



LSA

Legend

○ Signal

⊥ Stop Sign

F Free Right Turn

* Proposed Mitigation

OVL - Overlap Phase

FIGURE 23

Rocklin Crossings

Year 2030 Plus Project Without Dominguez Road - Mitigation

10. DOMINGUEZ ROAD SENSITIVITY ANALYSIS

An analysis of forecast 2030 traffic volumes was prepared assuming the extension of Dominguez Road 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. At the direction of the City, signalization of the intersection of Dominguez Road/Granite Drive is assumed to be part of the Dominguez Road Extension project, which extends Dominguez Road east over the freeway (just an overcrossing) to Sierra College Boulevard to form the fourth leg at the intersection of Sierra College Boulevard/Southern Project Driveway.

10.A. 2030 No Project With Dominguez Road

Weekday and Saturday peak-hour forecast traffic volumes for the 2030 no project with Dominguez Road scenario are shown on Figures 24 and 25. The LOS for study area intersections and roadway segments are shown in Tables R and S. The 2030 no project with Dominguez Road traffic volume development and LOS worksheets are provided in Appendix I.

As shown in Table R, the following 11 intersections are forecast to operate at unsatisfactory LOS in the 2030 no project with Dominguez Road condition:

- Rocklin Road/Pacific Street
- Rocklin Road/I-80 eastbound ramps
- Dominguez Road/Pacific Street
- Sierra College Boulevard/Taylor Road (Loomis)
- Sierra College Boulevard/Dominguez Road
- Sierra College Boulevard/Rocklin Road
- Taylor Road/Horseshoe Bar Road (Loomis)
- Horseshoe Bar Road/I-80 eastbound ramps (Loomis)
- Barton Road/Rocklin Road (Loomis)
- Sierra College Boulevard/English Colony Way (Placer County)
- Taylor Road/King Road (Loomis)

For roadway segments, Tables S and S2 show that application of the two-step procedure, first evaluating daily volume to capacity and then, if necessary, peak hour directional volume to capacity, results in no exceedances of LOS standards. While six roadway segments exceeded daily capacities, the peak hour directional analysis confirmed that these six segments will operate at acceptable LOS.

10.B. 2030 plus Project with Dominguez Road

Traffic volumes generated by the proposed project were added to the 2030 no project traffic volumes, and LOS were calculated for the 2030 plus project with Dominguez Road scenario. Weekday and Saturday peak-hour forecast traffic volumes for the 2030 plus project with Dominguez Road scenario

are shown on Figures 26 and 27. The LOS for study area intersections and roadway segments in the 2030 plus project with Dominguez Road scenario are shown in Tables T and U. The 2030 plus project with Dominguez Road LOS worksheets are provided in Appendix J.

As shown in Table T, the following two intersections are forecast to operate at unsatisfactory LOS and are significantly impacted in the 2030 plus project with Dominguez Road scenario:

- The intersection of Sierra College Boulevard/Dominguez Road is projected to operate at LOS E (unsatisfactory LOS) during the Saturday peak hour in the no project condition. Addition of the project traffic will further deteriorate the condition of this intersection to LOS F in the with project condition. Since the intersection is already operating at unsatisfactory LOS and the project increases the v/c ratio by 0.127, which is more than 0.05, at this signalized intersection, the project impact at this location is significant.
- The intersection of Sierra College Boulevard/English Colony Way (Placer County) is projected to operate at LOS D (unsatisfactory LOS) during the Saturday peak hour in the no project condition. Addition of the project traffic will further deteriorate the condition of this intersection in the with project condition. Since the intersection is already operating at unsatisfactory LOS and the project adds more than 5 percent of the total traffic at this unsignalized intersection, the project impact at this location is significant.

For roadway segments, Tables U and V show that application of the two-step procedure, first evaluating daily volume to capacity and then, if necessary, peak hour directional volume to capacity, results in no project impacts. While seven roadway segments exceeded daily capacities, the peak hour directional analysis confirmed that these seven segments will operate at acceptable LOS.

Recommended Mitigation: 2030 Plus Project With Dominguez Road

- **Sierra College Boulevard/Dominguez Road.** The proposed project will create a significant impact during the Saturday midday peak hour at this intersection. The proposed intersection striping will not be sufficient to accommodate project traffic in the 2030 with Dominguez Road scenario. *However, if the currently proposed lane configuration were striped to accommodate dual left-turn lanes, two through lanes, and a shared through/right-turn lane in the southbound direction and a left turn lane, a through lane, a shared through/right turn lane and an exclusive right turn lane in the eastbound direction at the time of its construction, this intersection would be mitigated. This configuration can exist in the same right-of-way currently planned for this intersection.* The payment of City's traffic impact mitigation fee will mitigate the project's cumulative impact.
- **Sierra College Boulevard/English Colony Way (Placer County).** This intersection is projected to operate at unsatisfactory LOS during the p.m. peak hour and Saturday midday peak hour in the no project condition. Addition of the project traffic would further degrade the intersection operation. The project adds more than 5 percent of the total traffic at this unsignalized intersection in the Saturday midday peak hour, thus exceeding the threshold of significance. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2030 no project with Dominguez Road scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. *Signalization of this intersection would mitigate the project's contribution to traffic at this location. The project will pay a fair share for*

signalization. Because the County controls what occurs at the intersection, however, and because the City is uncertain as to whether the County's CIP will ensure that any fair-share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the City conservatively concludes that, at the time of action by the City Council, the impact would be treated as **significant and unavoidable**, given that the City has no control over the County and thus cannot assume that the improvements contemplated by the mitigation will be implemented. Consistent with CEQA Guidelines Section 15091, Subdivision (a)(2), however, the City concludes that the County can and should cooperate with the City in implementing the mitigation.

The proposed mitigation for the 2030 plus project with Dominguez Road scenario is shown on Figure 28.

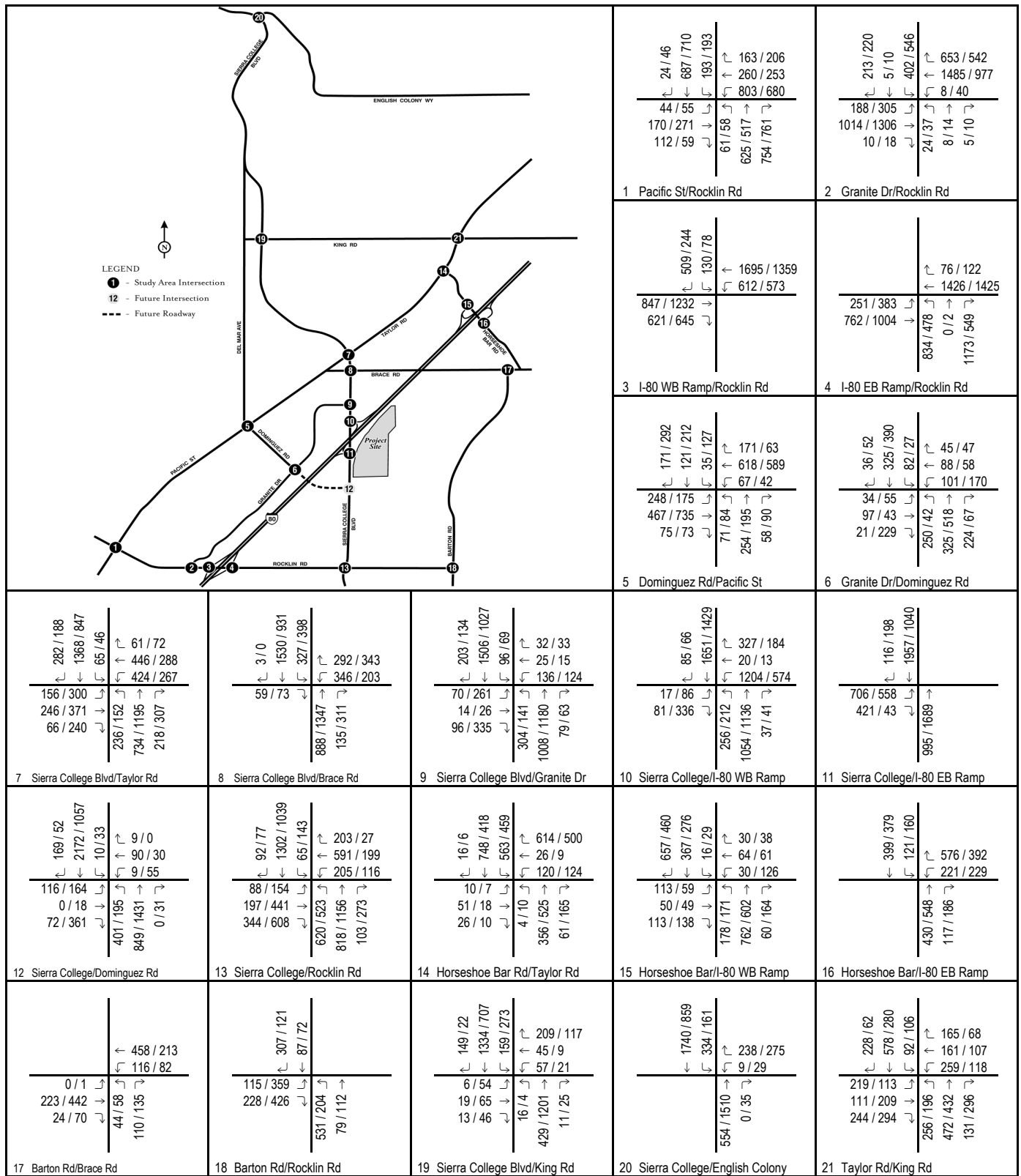


FIGURE 24

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings

Year 2030 No Project Peak Hour Traffic Volumes - With Dominguez Road

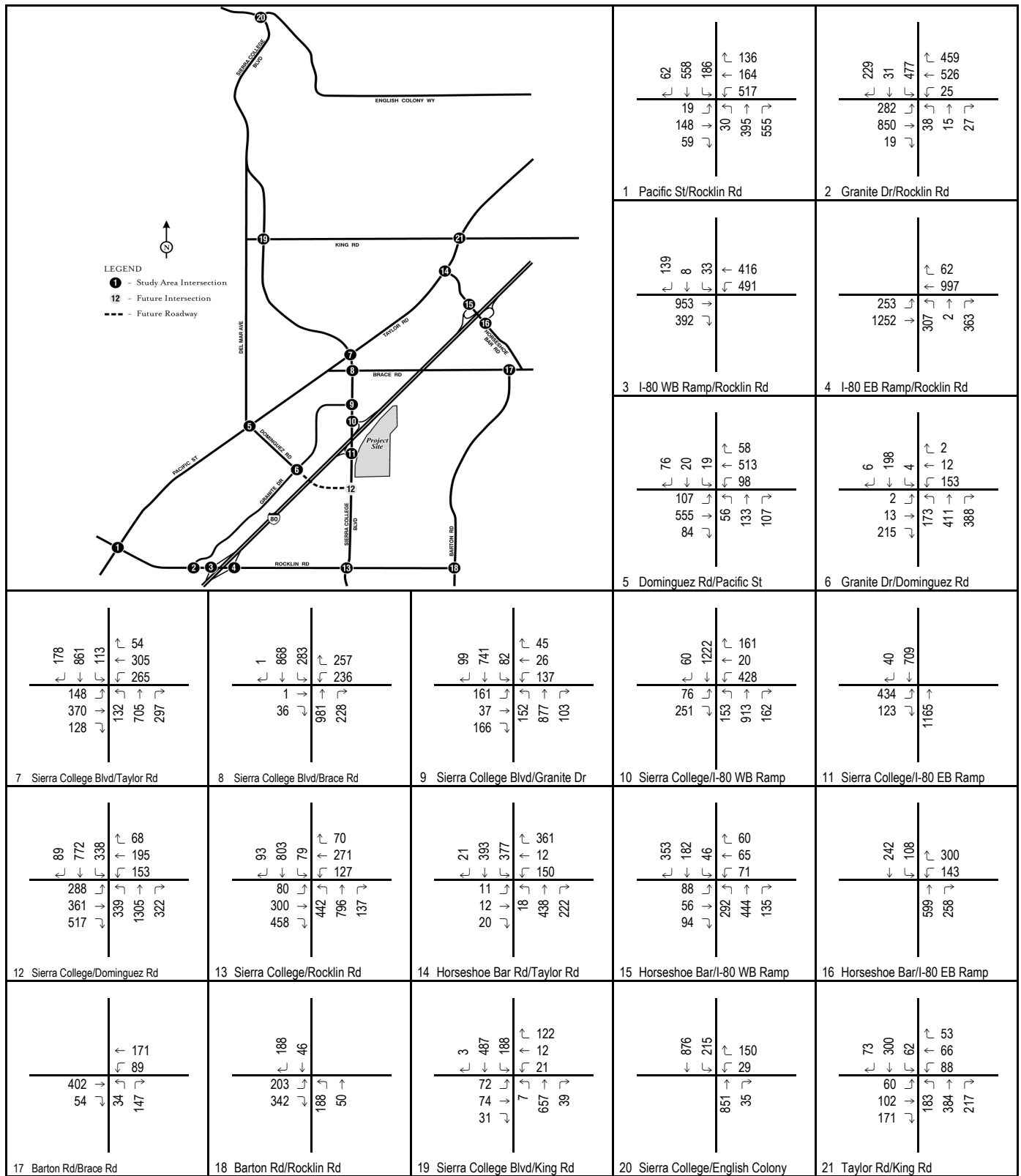


FIGURE 25

Rocklin Crossings
Year 2030 No Project Saturday Peak Hour Traffic Volumes - With Dominguez Road

Table R: 2030 No Project with Dominguez Road Condition Peak Hour Intersection Level of Service Summary

Intersection		2030 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	1.207	F	1.178	F	0.881	D
2	Rocklin Road/Granite Drive	0.857	D	0.826	D	0.629	B
3	Rocklin Road/I-80 Westbound Ramps	52.8 sec	D	28.8 sec	C	23.5 sec	C
4	Rocklin Road/I-80 Eastbound Ramps	55.4 sec	E	42.4 sec	D	21.1 sec	C
5	Dominguez Road/Pacific Street ¹	0.898	D	0.860	D	0.615	B
6	Dominguez Road/Granite Drive ¹²	0.472	A	0.529	A	0.562	A
7	Sierra College Boulevard/Taylor Road ¹ (Loomis)	44.3 sec	D	33.1 sec	C	32.9 sec	C
8	Sierra College Boulevard/Brace Road ¹ (Loomis)	23.7 sec	C	27.8 sec	C	22.2 sec	C
9	Sierra College Boulevard/Granite Drive	0.773	C	0.608	B	0.480	A
10	Sierra College Boulevard/I-80 Westbound Ramps	52.3 sec	D	45.9 sec	D	40.2 sec	D
11	Sierra College Boulevard/I-80 Eastbound Ramps	36.4 sec	D	9.8 sec	A	9.3 sec	A
12	Sierra College Boulevard/Dominguez Road	0.799	C	0.655	B	0.999	E
13	Sierra College Boulevard/Rocklin Road ¹	1.408	F	1.159	F	0.942	E
14	Taylor Road/Horseshoe Bar Road ¹ (Loomis)	54.4 sec	D	55.0 sec	E	35.8 sec	D
15	Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	19.0 sec	B	20.1 sec	C	21.8 sec	C
16	Horseshoe Bar Road/I-80 Eastbound Ramps* ^{1,2} (Loomis)	60.5 sec	F	114.9 sec	F	29.7 sec	D
17	Barton Road/Brace Road* ^{1,2} (Loomis)	14.7 sec	B	18.1 sec	C	14.9 sec	B
18	Barton Road/Rocklin Road* ^{1,2} (Loomis)	31.1 sec	D	16.0 sec	C	12.1 sec	B
19	Sierra College Boulevard/King Road ¹ (Loomis)	20.1 sec	C	20.1 sec	C	20.7 sec	C
20	Sierra College Boulevard/English Colony Way* ^{1,2} (Placer County)	17.1 sec	C	86.4 sec	F	28.2 sec	D
21	Taylor Road/King Road ¹ (Loomis)	37.0 sec	D	31.0 sec	C	28.0 sec	C

Notes:

ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.

* Indicates unsignalized intersection

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 1000 seconds

Exceeds level of service criteria

Table S: 2030 No Project With Dominguez Road Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	Volume	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	18,161	1.21	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	15,972	1.06	F
	Sierra College Boulevard and City Limits ¹ (Loomis)	Two-lane Collector	15,000	17,557	1.17	F
Pacific Street	City Limits and Dominguez Road ¹	Four-lane Undivided Arterial	30,000	18,362	0.61	B
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	20,041	0.67	B
Rocklin Road	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	33,366	1.11	F
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	23,835	0.79	C
	Sierra College Boulevard and Barton Road ¹ (Loomis)	Four-lane Undivided Arterial	30,000	13,720	0.46	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	3,531	0.24	A
Horseshoe Bar Road	I-80 and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	10,194	0.68	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	8,981	0.60	A
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	9,525	0.63	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Four-lane Undivided Arterial	30,000	30,116	1.00	F
	King Road and Taylor Road ¹ (Loomis)	Four-lane Undivided Arterial	30,000	24,160	0.81	D
	Taylor Road and I-80	Six-lane Arterial	50,525	36,662	0.73	C
	I-80 and Dominguez Road	Six-lane Arterial	50,525	35,997	0.71	B
	Dominguez Road and Rocklin Road ¹	Six-lane Arterial	50,525	40,106	0.79	C
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	10,373	0.35	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	7,422	0.25	A
Dominguez Road	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	10,417	0.69	B
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	6,631	0.44	A

Notes:

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

Exceeds level of service criteria



Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Penryn Community Plan.

**Table S2: 2030 No Project With Dominguez Road
Peak Hour Roadway Segment Level of Service Summary**

Roadway	Segment	Capacity	2030 No Project		
			Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)				
	A.M. Peak Hour Northbound	1,650	920	0.56	A
	A.M. Peak Hour Southbound	1,650	1,204	0.73	C
	P.M. Peak Hour Northbound	1,650	978	0.59	A
	P.M. Peak Hour Southbound	1,650	788	0.48	A
	Saturday Peak Hour Northbound	1,650	797	0.48	A
	Saturday Peak Hour Southbound	1,650	675	0.41	A
Taylor Road	Horseshoe Bar Rd and Sierra College Blvd (Loomis)				
	A.M. Peak Hour Eastbound	1,650	475	0.29	A
	A.M. Peak Hour Westbound	1,650	913	0.55	A
	P.M. Peak Hour Eastbound	1,650	712	0.43	A
	P.M. Peak Hour Westbound	1,650	590	0.36	A
	Saturday Peak Hour Eastbound	1,650	729	0.44	A
	Saturday Peak Hour Westbound	1,650	594	0.36	A
Taylor Road	Sierra College Blvd and City Limits (Loomis)				
	A.M. Peak Hour Eastbound	1,650	514	0.31	A
	A.M. Peak Hour Westbound	1,650	910	0.55	A
	P.M. Peak Hour Eastbound	1,650	932	0.56	A
	P.M. Peak Hour Westbound	1,650	661	0.40	A
	Saturday Peak Hour Eastbound	1,650	664	0.40	A
	Saturday Peak Hour Westbound	1,650	642	0.39	A
Rocklin Road	Pacific St and Granite Dr				
	A.M. Peak Hour Eastbound	3,300	1,165	0.35	A
	A.M. Peak Hour Westbound	3,300	1,474	0.45	A
	P.M. Peak Hour Eastbound	3,300	1,427	0.43	A
	P.M. Peak Hour Westbound	3,300	1,187	0.36	A
	Saturday Peak Hour Eastbound	3,300	1,020	0.31	A
	Saturday Peak Hour Westbound	3,300	805	0.24	A
Sierra College Boulevard	English Colony Way and King Rd (Placer County)				
	A.M. Peak Hour Northbound	3,300	599	0.18	A
	A.M. Peak Hour Southbound	3,300	1,696	0.51	A
	P.M. Peak Hour Northbound	3,300	1,459	0.44	A
	P.M. Peak Hour Southbound	3,300	945	0.29	A
	Saturday Peak Hour Northbound	3,300	869	0.26	A
	Saturday Peak Hour Southbound	3,300	792	0.24	A
Sierra College Boulevard	King Rd and Taylor Rd (Loomis)				
	A.M. Peak Hour Northbound	3,300	704	0.21	A
	A.M. Peak Hour Southbound	3,300	1,560	0.47	A
	P.M. Peak Hour Northbound	3,300	1,399	0.42	A
	P.M. Peak Hour Southbound	3,300	928	0.28	A
	Saturday Peak Hour Northbound	3,300	805	0.24	A
	Saturday Peak Hour Southbound	3,300	846	0.26	A

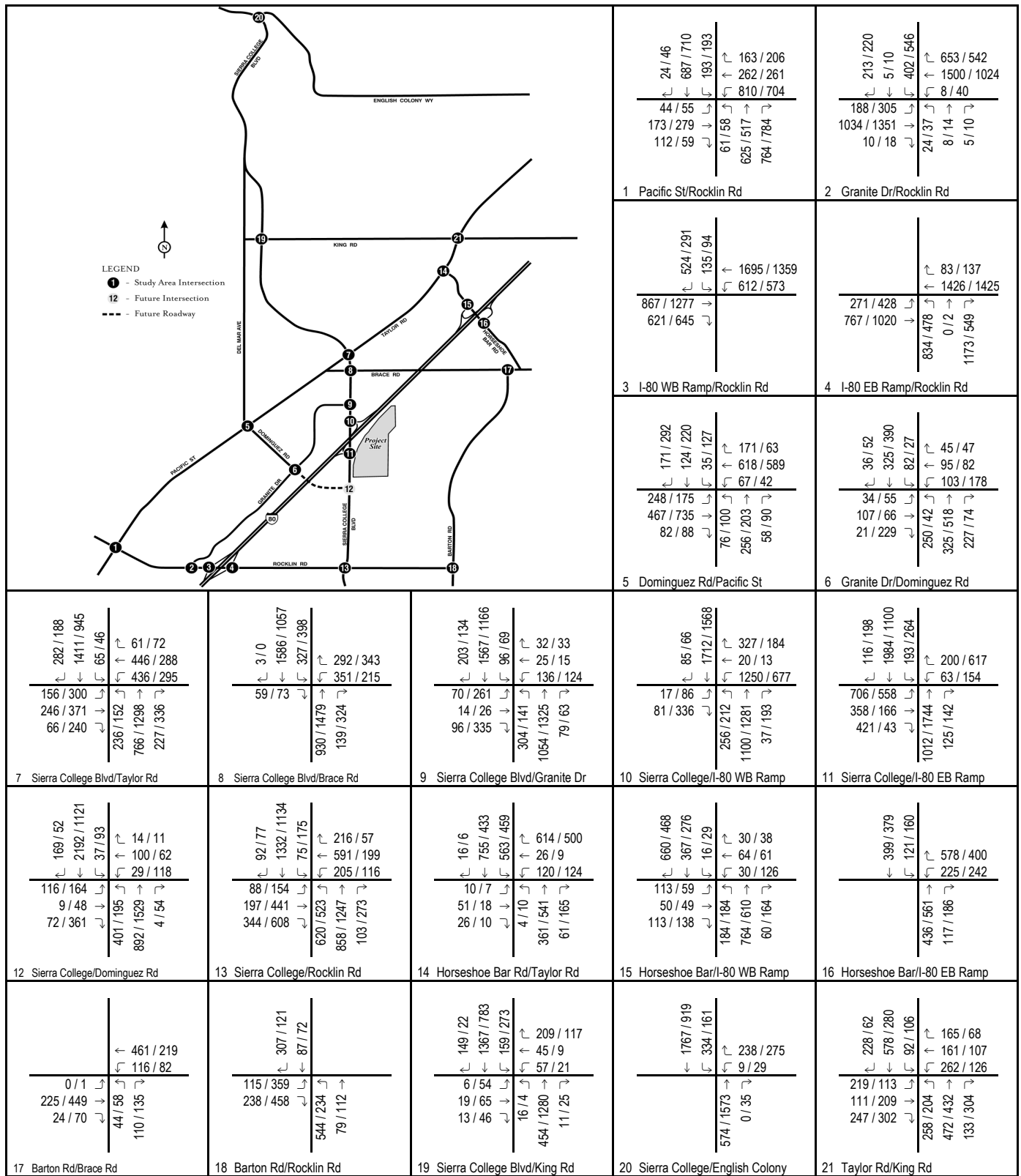


FIGURE 26

123 / 456 AM / PM Peak Hour Volume

Rocklin Crossings

Year 2030 Plus Project Peak Hour Traffic Volumes - With Dominguez Road

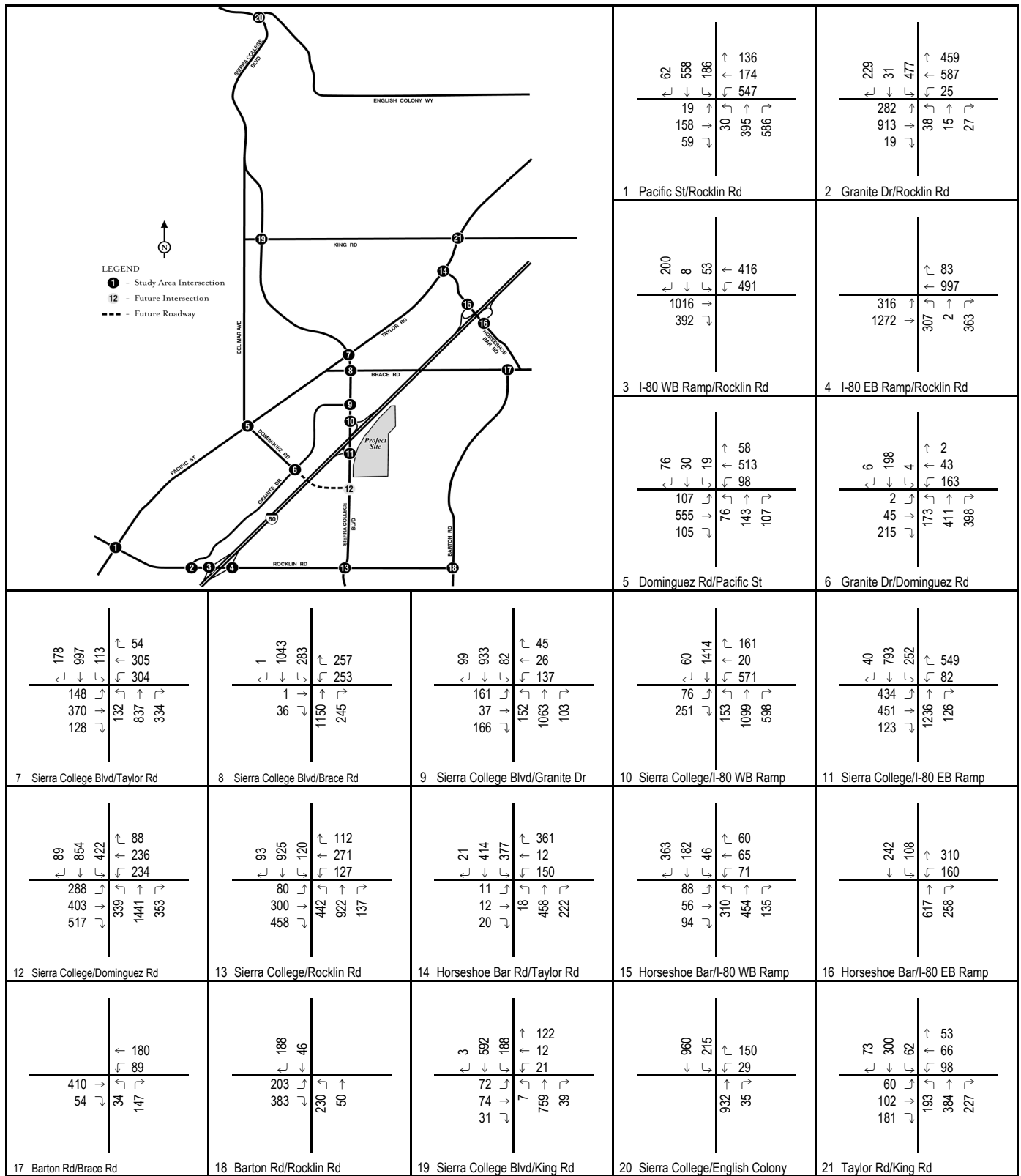


FIGURE 27

Rocklin Crossings

Year 2030 Plus Project Saturday Peak Hour Traffic Volumes - With Dominguez Road

Table T: 2030 Plus Project with Dominguez Road Condition Peak Hour Intersection Level of Service Summary

Intersection	2030 No Project with Dominguez Road Condition						2030 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	1.207	F	1.178	F	0.881	D	1.219	F ²	1.210	F ²	0.922	E ²
2 Rocklin Road/Granite Drive	0.857	D	0.826	D	0.629	B	0.862	D	0.843	D	0.651	B
3 Rocklin Road/I-80 Westbound Ramps	52.8 sec	D	28.8 sec	C	23.5 sec	C	54.5 sec	D	32.9 sec	C	26.0 sec	C
4 Rocklin Road/I-80 Eastbound Ramps	55.4 sec	E	42.4 sec	D	21.1 sec	C	58.9 sec	E ²	47.8 sec	D	22.0 sec	C
5 Dominguez Road/Pacific Street ¹	0.898	D	0.860	D	0.615	B	0.901	E ²	0.882	D ²	0.639	B
6 Dominguez Road/Granite Drive ^{1,3}	0.472	A	0.529	A	0.562	A	0.481	A	0.552	A	0.600	B
7 Sierra College Boulevard/Taylor Road ¹ (Loomis)	44.3 sec	D	33.1 sec	C	32.9 sec	C	46.4 sec	D ²	34.3 sec	C	34.1 sec	C
8 Sierra College Boulevard/Brace Road ¹ (Loomis)	23.7 sec	C	27.8 sec	C	22.2 sec	C	23.8 sec	C	28.3 sec	C	22.0 sec	C
9 Sierra College Boulevard/Granite Drive	0.773	C	0.608	B	0.480	A	0.787	C	0.642	B	0.527	A
10 Sierra College Boulevard/I-80 Westbound Ramps	52.3 sec	D	45.9 sec	D	40.2 sec	D	51.7 sec	D	40.7 sec	D	45.9 sec	D
11 Sierra College Boulevard/I-80 Eastbound Ramps	36.4 sec	D	9.8 sec	A	9.3 sec	A	29.5 sec	C	50.1 sec	D	17.8 sec	B
12 Sierra College Boulevard/Dominguez Road	0.799	C	0.655	B	0.999	E	0.811	D	0.748	C	1.126	F
13 Sierra College Boulevard/Rocklin Road ¹	1.408	F	1.159	F	0.942	E	1.425	F ²	1.182	F ²	0.971	E ²
14 Taylor Road/Horseshoe Bar Road ¹ (Loomis)	54.4 sec	D	55.0 sec	E	35.8 sec	D	54.9 sec	D ²	56.4 sec	E ²	36.6 sec	D ²
15 Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	19.0 sec	B	20.1 sec	C	21.8 sec	C	19.0 sec	B	20.2 sec	C	21.7 sec	C
16 Horseshoe Bar Road/I-80 Eastbound Ramps* ^{1,3} (Loomis)	60.5 sec	F	114.9 sec	F	29.7 sec	D	64.3 sec	F ²	135.3 sec	F ²	35.1 sec	E ²
17 Barton Road/Brace Road* ^{1,3} (Loomis)	14.7 sec	B	18.1 sec	C	14.9 sec	B	14.7 sec	B	18.4 sec	C	15.1 sec	C
18 Barton Road/Rocklin Road* ^{1,3} (Loomis)	31.1 sec	D	16.0 sec	C	12.1 sec	B	34.3 sec	D ²	17.3 sec	C	13.3 sec	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	20.1 sec	C	20.1 sec	C	20.7 sec	C	20.1 sec	C	19.9 sec	B	19.7 sec	B
20 Sierra College Boulevard/English Colony Way* ^{1,3} (Placer County)	17.1 sec	C	86.4 sec	F	28.2 sec	D	17.6 sec	C	105.6 sec	F ²	35.4 sec	E
21 Taylor Road/King Road ¹ (Loomis)	37.0 sec	D	31.0 sec	C	28.0 sec	C	37.1 sec	D ²	31.3 sec	C	28.5 sec	C

Notes:

ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.

* Indicates unsignalized intersection

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

² Project-related increase is less than 0.05 in V/C ratio or less than 5% of the total traffic at the intersection, therefore not a significant impact.

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

* Delay exceeds 1000 seconds

☐ Exceeds level of service criteria

◼ (Shade) = Significant Impact

Table U: 2030 Plus Project With Dominguez Road Daily Roadway Segment Level of Service Summary

Roadway	Segment	Configuration	Capacity	2025 No Project			2025 Plus Project		
				Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Road and Horseshoe Bar Road ¹ (Loomis)	Two-lane Collector	15,000	18,161	1.21	F	18,476	1.23	F
	Horseshoe Bar Road and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	15,972	1.06	F	16,412	1.09	F
	Sierra College Boulevard and City Limits ¹ (Loomis)	Two-lane Collector	15,000	17,557	1.17	F	18,027	1.20	F
Pacific Street	City Limits and Dominguez Road ¹	Four-lane Undivided Arterial	30,000	18,362	0.61	B	18,832	0.63	B
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	20,041	0.67	B	20,196	0.67	B
Rocklin Road	Pacific Street and Granite Drive	Four-lane Undivided Arterial	30,000	33,366	1.11	F	34,141	1.14	F
	I-80 and Sierra College Boulevard	Four-lane Undivided Arterial	30,000	23,835	0.79	C	23,990	0.80	C
	Sierra College Boulevard and Barton Road ¹ (Loomis)	Four-lane Undivided Arterial	30,000	13,720	0.46	A	14,340	0.48	A
Barton Road	Rocklin Road and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	3,531	0.24	A	3,531	0.24	A
Horseshoe Bar Road	I-80 and Brace Road ¹ (Loomis)	Two-lane Collector	15,000	10,194	0.68	B	10,404	0.69	B
Brace Road	I-80 and Barton Road ¹ (Loomis)	Two-lane Collector	15,000	8,981	0.60	A	9,231	0.62	B
	I-80 and Sierra College Boulevard ¹ (Loomis)	Two-lane Collector	15,000	9,525	0.63	B	9,655	0.64	B
Sierra College Boulevard	English Colony Way and King Road ¹ (Placer County)	Four-lane Undivided Arterial	30,000	30,116	1.00	F	31,506	1.05	F
	King Road and Taylor Road ¹ (Loomis)	Four-lane Undivided Arterial	30,000	24,160	0.81	D	25,940	0.86	D
	Taylor Road and I-80	Six-lane Arterial	50,525	36,662	0.73	C	39,962	0.79	C
	I-80 and Dominguez Road	Six-lane Arterial	50,525	35,997	0.71	B	39,172	0.78	C
	Dominguez Road and Rocklin Road ¹	Six-lane Arterial	50,525	40,106	0.79	C	42,891	0.85	D
Granite Drive	Dominguez Road and Sierra College Boulevard ¹	Four-lane Undivided Arterial	30,000	10,373	0.35	A	10,523	0.35	A
	Dominguez Road and Rocklin Road ¹	Four-lane Undivided Arterial	30,000	7,422	0.25	A	7,497	0.25	A
Dominguez Road	Taylor Road and Granite Drive ¹	Two-lane Collector	15,000	10,417	0.69	B	10,417	0.69	B
King Road	Sierra College Boulevard and Taylor Road ¹ (Loomis)	Two-lane Collector	15,000	6,631	0.44	A	6,711	0.45	A

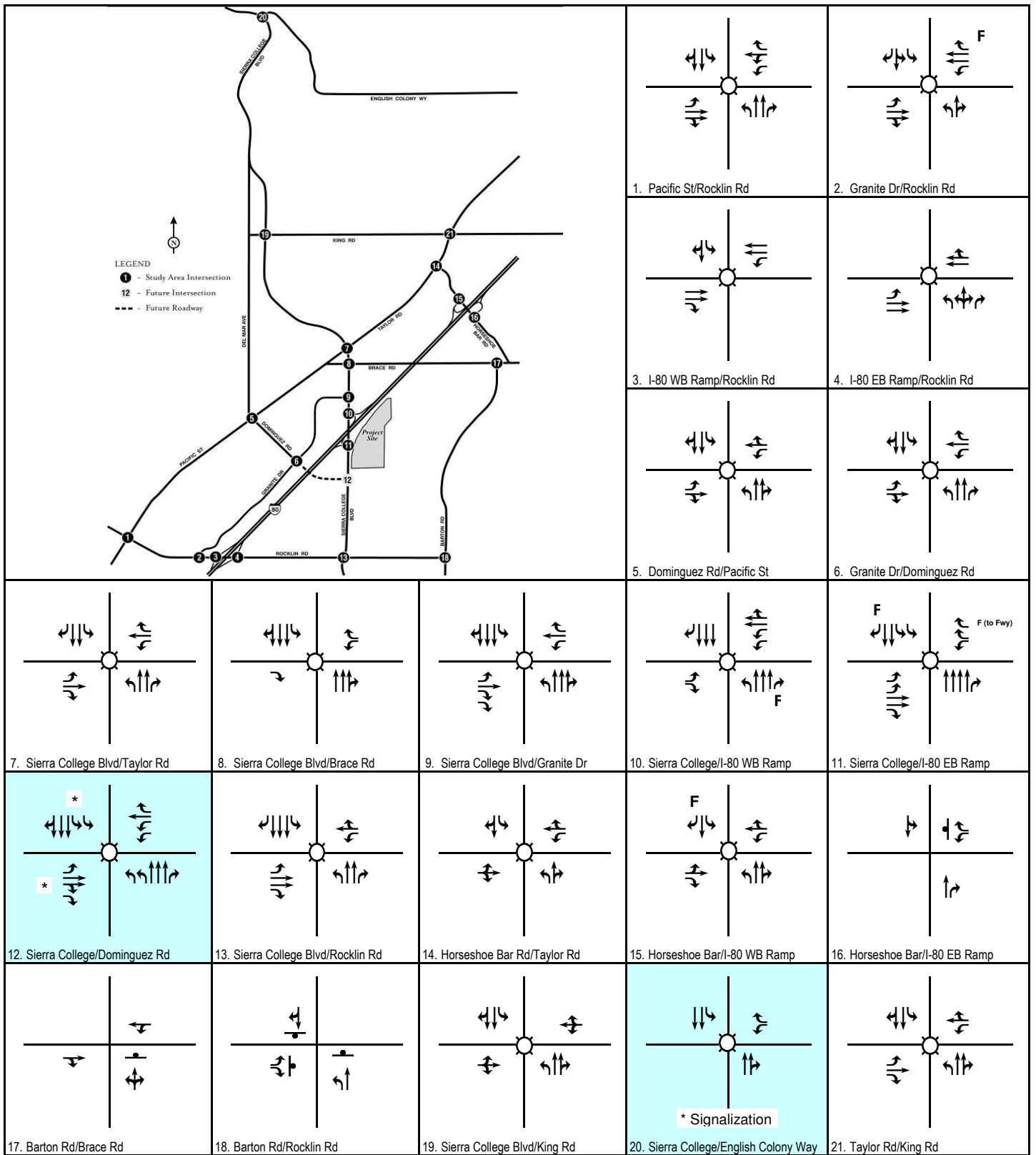
Notes:

¹ LOS C required for these segments. LOS D acceptable for all other segments.
 Exceeds level of service criteria

 Roadway Improvements consistent with City of Rocklin General Plan, Town of Loomis General Plan, and the Horseshoe Bar/Penryn Community Plan.

**Table V: 2030 Plus Project With Dominguez Road
Peak Hour Roadway Segment Level of Service Summary**

Roadway	Segment	Capacity	2030 No Project			2030 Plus Project		
			Volume	V/C	LOS	Volume	V/C	LOS
Taylor Road	King Rd and Horseshoe Bar Rd (Loomis)							
	A.M. Peak Hour Northbound	1,650	920	0.56	A	924	0.56	A
	A.M. Peak Hour Southbound	1,650	1,204	0.73	C	1,211	0.73	C
	P.M. Peak Hour Northbound	1,650	978	0.59	A	994	0.60	A
	P.M. Peak Hour Southbound	1,650	788	0.48	A	803	0.49	A
	Saturday Peak Hour Northbound	1,650	797	0.48	A	817	0.50	A
	Saturday Peak Hour Southbound	1,650	675	0.41	A	696	0.42	A
Taylor Road	Horseshoe Bar Rd and Sierra College Blvd (Loomis)							
	A.M. Peak Hour Eastbound	1,650	475	0.29	A	482	0.29	A
	A.M. Peak Hour Westbound	1,650	913	0.55	A	922	0.56	A
	P.M. Peak Hour Eastbound	1,650	712	0.43	A	735	0.45	A
	P.M. Peak Hour Westbound	1,650	590	0.36	A	611	0.37	A
	Saturday Peak Hour Eastbound	1,650	729	0.44	A	758	0.46	A
	Saturday Peak Hour Westbound	1,650	594	0.36	A	624	0.38	A
Taylor Road	Sierra College Blvd and City Limits (Loomis)							
	A.M. Peak Hour Eastbound	1,650	514	0.31	A	514	0.31	A
	A.M. Peak Hour Westbound	1,650	910	0.55	A	910	0.55	A
	P.M. Peak Hour Eastbound	1,650	932	0.56	A	932	0.56	A
	P.M. Peak Hour Westbound	1,650	661	0.40	A	661	0.40	A
	Saturday Peak Hour Eastbound	1,650	664	0.40	A	664	0.40	A
	Saturday Peak Hour Westbound	1,650	642	0.39	A	662	0.40	A
Rocklin Road	Pacific St and Granite Dr							
	A.M. Peak Hour Eastbound	3,300	1,165	0.35	A	1,181	0.36	A
	A.M. Peak Hour Westbound	3,300	1,474	0.45	A	1,486	0.45	A
	P.M. Peak Hour Eastbound	3,300	1,427	0.43	A	1,465	0.44	A
	P.M. Peak Hour Westbound	3,300	1,187	0.36	A	1,226	0.37	A
	Saturday Peak Hour Eastbound	3,300	1,020	0.31	A	1,072	0.32	A
	Saturday Peak Hour Westbound	3,300	805	0.24	A	856	0.26	A
Sierra College Boulevard	English Colony Way and King Rd (Placer County)							
	A.M. Peak Hour Northbound	3,300	599	0.18	A	622	0.19	A
	A.M. Peak Hour Southbound	3,300	1,696	0.51	A	1,725	0.52	A
	P.M. Peak Hour Northbound	3,300	1,459	0.44	A	1,530	0.46	A
	P.M. Peak Hour Southbound	3,300	945	0.29	A	1,013	0.31	A
	Saturday Peak Hour Northbound	3,300	869	0.26	A	960	0.29	A
	Saturday Peak Hour Southbound	3,300	792	0.24	A	886	0.27	A
Sierra College Boulevard	King Rd and Taylor Rd (Loomis)							
	A.M. Peak Hour Northbound	3,300	704	0.21	A	732	0.22	A
	A.M. Peak Hour Southbound	3,300	1,560	0.47	A	1,598	0.48	A
	P.M. Peak Hour Northbound	3,300	1,399	0.42	A	1,490	0.45	A
	P.M. Peak Hour Southbound	3,300	928	0.28	A	1,015	0.31	A
	Saturday Peak Hour Northbound	3,300	805	0.24	A	922	0.28	A
	Saturday Peak Hour Southbound	3,300	846	0.26	A	966	0.29	A
Sierra College Boulevard	Dominguez Rd and Rocklin Rd							
	A.M. Peak Hour Northbound	4,950	1,109	0.22	A	1,162	0.23	A
	A.M. Peak Hour Southbound	4,950	1,459	0.29	A	1,499	0.30	A
	P.M. Peak Hour Northbound	4,950	1,337	0.27	A	1,458	0.29	A
	P.M. Peak Hour Southbound	4,950	1,259	0.25	A	1,386	0.28	A
	Saturday Peak Hour Northbound	4,950	946	0.19	A	1,114	0.23	A
	Saturday Peak Hour Southbound	4,950	975	0.20	A	1,138	0.23	A



LSA

- Legend
- Signal
- ⊠ Stop Sign
- F Free Right Turn
- * Proposed Mitigation

FIGURE 28

Rocklin Crossings
Year 2030 Plus Project With Dominguez Road - Mitigation

11. SPECIAL ISSUES

11.A. Freeway Mainline Analysis

To analyze the operation of the highway system in the vicinity of the project in the existing, existing plus approved projects, and 2030 without and with project conditions, the I-80 mainline between the Horseshoe Bar Road and Atlantic Street interchanges and the SR-65 mainline between the I-80 junction and Blue Oaks Boulevard were analyzed in the a.m. and p.m. peak hours. The existing volumes were obtained from Caltrans database¹ for 2008 conditions (the most recent data available). The volumes for Existing Plus Approved Condition were calculated by adding the traffic generated by cumulative projects to the existing traffic volumes. The volumes for 2030 without and with Dominguez conditions was developed by adding the growth between 2008 and 2030 obtained from the travel demand model (2030 model volumes – 2008 model volumes) to the existing traffic volumes. The Caltrans LOS standard for its facilities is LOS E.

As shown in Table W, in existing conditions, current capacity on SR-65 between I-80 and Galleria Boulevard/Stanford Ranch Road will not serve baseline demand at an acceptable LOS in the p.m. peak hour. For this segment which operates at unacceptable LOS, the increase in traffic volume with the project would be less than 1.7 percent. Since the project contributes less than 5 percent of the total traffic, the project does not have a significant impact along this segment of the freeway mainline.

Caltrans has long-term plans to increase capacity to accommodate impacts anticipated from cumulative regional traffic growth, including traffic coming from projects in Rocklin, and is collecting moneys from various sources to help fund required improvements. For example, the Caltrans I-80 freeway improvement project² between Riverside Avenue/Auburn Boulevard and SR-65 proposes to increase freeway capacity by adding a high-occupancy vehicle (HOV) lane and auxiliary lanes. Based on information provided on the Caltrans website,³ the eastbound and westbound HOV lanes from Sac Co/Placer Co line to Eureka Road is scheduled for completion in the fall 2010. The westbound HOV lane from Eureka Road to past Hwy 65 is scheduled for completion in the winter 2011. The eastbound HOV lane from past Hwy 65 to Eureka Road is currently not funded and therefore no construction timeline is given. Hence, for the Existing plus Approved Projects (Baseline) conditions, the I-80 mainline between Atlantic Street and SR-65 was analyzed as a ten-lane (mainline) freeway, and the freeway (I-80) mainline segment between SR-65 and Horseshoe Bar Road interchange was analyzed as a future six-lane freeway. In the existing plus approved projects condition, the capacity on two segments along SR-65 between I-80 and Galleria Boulevard and between Galleria Boulevard and Pleasant Grove Boulevard would not serve baseline demand at an acceptable LOS in the a.m. and p.m. peak hour. For these segments which operate at unacceptable LOS, the increase in traffic volume with the project would be less than 1.6 percent. Since the project contributes less than 5 percent of the total traffic, the project does not have a significant impact along these segments of the freeway mainline.

The 2030 without and with project conditions were analyzed for both the without and with Dominguez Road scenarios. All freeway mainline segments along I-80 are projected to operate at LOS E or better in 2030 (for both the without and with Dominguez Road extension scenarios) with

¹ <http://traffic-counts.dot.ca.gov/2008all/2008AADT.xls>

² *Freeway Improvement Project on Interstate 80 from 1.1 km West of the Sacramento/Placer County Line to 1.56 km East of the Route 65 Connector in Placer County*, Caltrans, April 2003.

³ <http://www.dot.ca.gov/dist3/projects/SacPla80/>

the future ten-lane freeway for the segment between Atlantic Street and SR-65. Also, all freeway segments along SR-65 are projected to operate at LOS E or better in 2030 with the future six-lane freeway except for the northbound segment on SR-65 between I-80 and Galleria Boulevard/Stanford Ranch Road, which will not serve future demand at an acceptable LOS in both the a.m. and p.m. peak hours. In both, 2030 without Dominguez and 2030 with Dominguez conditions, the SR-65 between I-80 and Galleria Boulevard/Stanford Ranch Road is projected to operate at unacceptable LOS without the project. For these segments which operate at unacceptable LOS, the increase in traffic volume with the project would be less than 1.2 percent. Since the project contributes less than 5 percent of the total traffic, the project does not have a significant impact along these segments of the freeway mainline. The HCS Plus worksheets are provided in Appendices K, L, and M.

Even though the segments of the freeway mainline along SR-65 between I-80 and Galleria Boulevard/Stanford Ranch Road and between Galleria Boulevard and Pleasant Grove Boulevard are projected to operate at unacceptable LOS in baseline (both segments) and cumulative (one segment) conditions, for both without and with project scenarios, the project contributes less than 5 percent of the total traffic and hence the impacts associated with the project are considered to be **less than significant**.

11.B. Driveway Throat Length

As shown on the project site plan (Figure 2), the main project access driveway on Sierra College Boulevard will form the east leg of the I-80 eastbound off-ramp intersection. The main access drive is approximately 300 ft in length and terminates at a roundabout on site. Vehicles entering the project could make a right turn from the access drive into Village 1 (approximately 250 ft from Sierra College Boulevard); however, left turns will be prohibited along the access drive.

Most of the inbound project traffic will use the roundabout to access the Home Depot and Walmart stores and the retail buildings located on the north end of the site. However, some traffic would make a right turn off the access drive into Village 1. To determine whether adequate throat distance is provided, LSA consulted the *Access Management Manual*, published by the Transportation Research Board. According to Table 10-8 in the *Access Management Manual*, the minimum throat length recommended for a driveway with three egress lanes is 200 ft. Approximately 250 ft is provided from Sierra College Boulevard to the first right-turn opportunity into Village 1. This distance would exceed the recommendation in the *Access Management Manual*. As a result, no stacking of vehicles from the internal right turn to Sierra College Boulevard is expected.

11.C. Right Turns from Unsignalized Driveway

The geometrics shown on the project site plan for Sierra College Boulevard and the project driveways include the planned improvements to the I-80/Sierra College Boulevard interchange as well as the improvements to Sierra College Boulevard along the project frontage. The project site plan includes one unsignalized driveway located approximately halfway between the I-80 eastbound off-ramp and the Dominguez Road extension. The unsignalized driveway would allow right turns in and out only onto Sierra College Boulevard. Northbound Sierra College Boulevard at the driveway location is made up of five lanes. The number 1, 2, and 3 lanes provide northbound through movement. The number 4 lane provides northbound movement through the I-80 eastbound off-ramp intersection and

becomes a “trap” lane onto the I-80 eastbound on-ramp. The number 5 lane is a right-turn-only lane into Rocklin Crossings at the signalized I-80 eastbound off-ramp driveway.

Because of the width of Sierra College Boulevard at the unsignalized driveway, outbound vehicles could have difficulty turning onto the northbound Sierra College Boulevard through lanes, as those vehicles would need to cross both the right-turn lane into Rocklin Crossings and the freeway trap lane. To determine whether vehicles would be restricted from turning out of the driveway into the through lanes by heavy northbound through traffic, an operational analysis of this driveway location was prepared using Synchro 7. Synchro allows the user to model the expected traffic operations of a corridor rather than just a single intersection. The unsignalized driveway was modeled along with the two adjacent signalized intersections to determine whether adequate gaps would be caused by the traffic signals to allow egress from the driveway. The unsignalized operations analysis is provided in Appendix J.

Since a queuing analysis cannot be conducted at an unsignalized location a gap analysis was conducted. The unsignalized LOS worksheets indicate the proportion of time that the westbound right-turn movement is not blocked by vehicles traveling northbound on Sierra College Boulevard as well as the capacity of the right-turn movement considering the total conflicting flow rate. In both the a.m. and p.m. peak hours, the capacity of the right-turn movement exceeds the demand for right turns (capacity of 723 vs. demand of 12 in the a.m. peak hour, capacity of 974 vs. demand of 40 in the p.m. peak hour, and capacity of 1007 vs. demand of 51 in the Saturday midday peak hour). According to the calculations, the westbound right turn would be unblocked 98 percent of the time during the a.m. peak hour, 96 percent of the time during the p.m. peak hour, and 95 percent of the time during the Saturday midday peak hour. As a result, sufficient gaps in the traffic stream will occur along Sierra College Boulevard to allow right turns from the unsignalized driveway to the northbound through lanes.

Table W: Freeway Segment Level of Service Summary

Freeway	Segment	Number of Lanes	Existing											
			Existing						Existing Plus Project					
			AM			PM			AM			PM		
			Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS
I-80 EB	Atlantic Street to Taylor Road	4	4,520	18.5	C	6,682	28.8	D	4,549	18.6	C	6,777	29.4	D
	Taylor Road to RTE 65	4	3,515	14.4	B	5,197	21.3	C	3,560	14.6	B	5,339	21.9	C
	RTE 65 to Rocklin Road	3	2,787	15.2	B	4,813	27.2	D	2,854	15.6	B	5,027	28.9	D
	Rocklin Road to Sierra College Boulevard	3	2,670	14.6	B	4,610	25.8	C	2,757	15.0	B	4,887	27.8	D
	Sierra College Boulevard to Horseshoe Bar Road	3	2,494	13.6	B	4,306	23.7	C	2,540	13.8	B	4,412	24.4	C
RTE 65 NB	I-80 to Galleria Boulevard	2	3,662	36.2	E	4,092	>45	F	3,684	36.6	E	4,163	>45	F
	Galleria Boulevard to Pleasant Grove Boulevard	2	3,083	27.3	D	3,446	32.3	D	3,101	27.5	D	3,501	33.2	D
	Pleasant Grove Boulevard to Blue Oaks Boulevard	2	2,544	21.8	C	2,843	24.7	C	2,554	21.9	C	2,875	25.0	C
I-80 WB	Atlantic Street to Taylor Road	4	5,930	24.7	C	5,405	22.2	C	5,970	24.8	C	5,496	22.6	C
	Taylor Road to RTE 65	4	4,612	18.9	C	4,204	17.2	B	4,672	19.1	C	4,340	17.7	B
	RTE 65 to Rocklin Road	3	4,433	24.6	C	3,746	20.4	C	4,523	25.1	C	3,951	21.6	C
	Rocklin Road to Sierra College Boulevard	3	4,246	23.4	C	3,589	19.6	C	4,363	24.1	C	3,853	21.0	C
	Sierra College Boulevard to Horseshoe Bar Road	3	3,966	21.7	C	3,352	18.3	C	4,001	21.9	C	3,463	18.9	C
RTE 65 SB	I-80 to Galleria Boulevard	3	3,207	18.2	C	3,280	18.7	C	3,237	18.4	C	3,348	19.0	C
	Galleria Boulevard to Pleasant Grove Boulevard	2	2,701	23.3	C	2,762	23.9	C	2,724	23.5	C	2,815	24.4	C
	Pleasant Grove Boulevard to Blue Oaks Boulevard	2	2,228	19.0	C	2,279	19.4	C	2,241	19.1	C	2,309	19.7	C
Freeway	Segment	Number of Lanes	Baseline											
			Existing Plus Approved						Existing Plus Approved Plus Project					
			AM			PM			AM			PM		
			Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS
I-80 EB	Atlantic Street to Taylor Road	5	5,850	24.3	C	6,947	30.5	D	5,880	24.4	C	7,042	31.2	D
	Taylor Road to RTE 65	5	4,710	19.3	C	5,197	21.3	C	4,755	19.4	C	5,339	21.9	C
	RTE 65 to Rocklin Road	3	3,663		C	5,113	29.7	D	3,730	20.3	C	5,327	31.6	D
	Rocklin Road to Sierra College Boulevard	3	3,458	18.8	C	5,053	29.2	D	3,546	19.3	C	5,330	31.7	D
	Sierra College Boulevard to Horseshoe Bar Road	3	2,916	15.9	B	4,802	27.1	D	2,962	16.1	B	4,907	28.0	D
RTE 65 NB	I-80 to Galleria Boulevard	2	4,776	>45	F	4,956	>45	F	4,798	>45	F	5,027	>45	F
	Galleria Boulevard to Pleasant Grove Boulevard	2	4,098	>45	F	4,385	>45	F	4,116	>45	F	4,440	>45	F
	Pleasant Grove Boulevard to Blue Oaks Boulevard	2	3,408	31.7	D	3,846	40.2	E	3,418	31.9	D	3,878	41.0	E
I-80 WB	Atlantic Street to Taylor Road	5	6,126	25.7	C	6,585	28.2	D	6,166	25.9	C	6,676	28.8	D
	Taylor Road to RTE 65	5	4,848	19.8	C	5,282	21.7	C	4,908	20.1	C	5,418	22.3	C
	RTE 65 to Rocklin Road	3	4,766	26.9	D	4,734	26.6	D	4,856	27.5	D	4,938	28.2	D
	Rocklin Road to Sierra College Boulevard	3	4,701	26.5	D	4,547	25.3	C	4,817	27.3	D	4,812	27.2	D
	Sierra College Boulevard to Horseshoe Bar Road	3	4,418	24.5	C	3,988	21.8	C	4,453	24.7	C	4,098	22.5	C
RTE 65 SB	I-80 to Galleria Boulevard	3	3,847	22.0	C	4,284	24.8	C	3,877	22.2	C	4,352	25.3	C
	Galleria Boulevard to Pleasant Grove Boulevard	2	3,588	34.8	D	3,859	40.6	E	3,612	35.2	E	3,912	41.9	E
	Pleasant Grove Boulevard to Blue Oaks Boulevard	2	3,132	27.9	D	3,184	28.6	D	3,145	28.1	D	3,215	29.0	D
Freeway	Segment	Number of Lanes	Without Dominguez Road Extension											
			2030 No Project						2030 With Project					
			AM			PM			AM			PM		
			Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS
I-80 EB	Atlantic Street to Taylor Road	5	7,736	26.0	C	7,235	24.0	C	7,766	26.1	D	7,330	24.3	C
	Taylor Road to RTE 65	5	6,385	20.9	C	4,886	16.0	B	6,430	21.1	C	5,029	16.4	B
	RTE 65 to Rocklin Road	3	4,856	27.5	D	5,331	31.7	D	4,923	28.1	D	5,545	33.9	D
	Rocklin Road to Sierra College Boulevard	3	4,506	25.0	C	5,414	32.5	D	4,594	25.7	C	5,690	35.6	E
	Sierra College Boulevard to Horseshoe Bar Road	3	3,477	18.9	C	5,409	32.5	D	3,524	19.2	C	5,514	33.6	D
RTE 65 NB	I-80 to Galleria Boulevard	3	6,356	>45	F	6,127	>45	F	6,379	>45	F	6,198	>45	F
	Galleria Boulevard to Pleasant Grove Boulevard	3	5,541	36.8	E	5,681	38.8	E	5,558	37.0	E	5,736	39.7	E
	Pleasant Grove Boulevard to Blue Oaks Boulevard	3	4,642	27.5	D	5,258	33.3	D	4,652	27.5	D	5,290	33.7	D
I-80 WB	Atlantic Street to Taylor Road	5	6,367	20.8	C	8,193	28.0	D	6,407	21.0	C	8,283	28.5	D
	Taylor Road to RTE 65	5	5,128	16.8	B	6,697	22.0	C	5,187	17.0	B	6,833	22.5	C
	RTE 65 to Rocklin Road	3	5,154	30.0	D	5,951	39.2	E	5,244	30.8	D	6,155	42.5	E
	Rocklin Road to Sierra College Boulevard	3	5,238	30.8	D	5,662	35.3	E	5,354	31.9	D	5,927	38.8	E
	Sierra College Boulevard to Horseshoe Bar Road	3	5,034	29.0	D	4,791	27.1	D	5,068	29.3	D	4,902	27.9	D
RTE 65 SB	I-80 to Galleria Boulevard	3	4,739	28.3	D	5,661	38.5	E	4,769	28.5	D	5,729	39.6	E
	Galleria Boulevard to Pleasant Grove Boulevard	3	4,842	29.2	D	5,384	34.8	D	4,866	29.4	D	5,437	35.4	E
	Pleasant Grove Boulevard to Blue Oaks Boulevard	3	4,419	25.8	C	4,457	26.1	D	4,432	25.9	C	4,488	26.3	C
Freeway	Segment	Number of Lanes	With Dominguez Road Extension											
			2030 No Project						2030 No Project					
			AM			PM			AM			PM		
			Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS	Volume	Density	LOS
I-80 EB	Atlantic Street to Taylor Road	5	7,719	25.9	C	7,238	24.0	C	7,749	26.0	D	7,333	24.3	C
	Taylor Road to RTE 65	5	6,431	21.1	C	4,898	16.0	B	6,476	21.2	C	5,041	16.5	B
	RTE 65 to Rocklin Road	3	4,933	28.2	D	5,329	31.7	D	5,000	28.7	D	5,543	33.9	D
	Rocklin Road to Sierra College Boulevard	3	4,591	25.6	C	5,404	32.4	D	4,679	26.2	D	5,680	35.5	E
	Sierra College Boulevard to Horseshoe Bar Road	3	3,501	19.1	C	5,395	32.3	D	3,548	19.3	C	5,500	33.4	D
RTE 65 NB	I-80 to Galleria Boulevard	3	6,347	>45	F	6,117	>45	F	6,370	>45	F	6,188	>45	F
	Galleria Boulevard to Pleasant Grove Boulevard	3	5,535	36.7	E	5,674	38.7	E	5,552	37.0	E	5,729	39.6	E
	Pleasant Grove Boulevard to Blue Oaks Boulevard	3	4,643	27.5	D	5,250	33.2	D	4,653	27.6	D	5,282	33.6	D
I-80 WB	Atlantic Street to Taylor Road	5	6,365	20.8	C	8,194	28.0	D	6,405	21.0	C	8,284	28.5	D
	Taylor Road to RTE 65	5	5,126	16.8	B	6,696	22.0	C	5,185	17.0	B	6,832	22.5	C
	RTE 65 to Rocklin Road	3	5,150	30.0	D	5,940	39.0	D	5,240	30.8	D	6,144	42.3	E
	Rocklin Road to Sierra College Boulevard	3	5,207	30.5	D	5,633	34.9	D	5,323	31.6	D	5,898	38.4	E
	Sierra College Boulevard to Horseshoe Bar Road	3	5,028	28.9	D	4,790	27.1	D	5,062	29.2	D	4,901	27.9	D
RTE 65 SB	I-80 to Galleria Boulevard	3	4,772	28.5	D	5,650	38.4	E	4,802	28.8	D	5,718	39.4	E
	Galleria Boulevard to Pleasant Grove Boulevard	3	4,873	29.4	D	5,375	34.7	D	4,897	29.7	D	5,428	35.3	E
	Pleasant Grove Boulevard to Blue Oaks Boulevard	3	4,436	25.9	C	4,450	26.0	D	4,449	26.0	C	4,481	26.2	D

Notes:
 Exceeds level of service criteria
 (Shade) = Significant Impact

12. MITIGATION MEASURES

This report provides an analysis of the circulation impacts associated with development of the Rocklin Crossings project. Mitigation measures for all project impacts have been identified and are summarized below.

12.A. Existing Plus Approved Projects (Baseline) Plus Project

The following improvements would mitigate the impacts of the project in the existing plus approved projects (baseline) plus project conditions:

- **Rocklin Road/Pacific Street.** Addition of project traffic would result in the LOS at this intersection deteriorating from LOS C to LOS D, during the Saturday peak hour in the existing plus approved projects condition. *Adding a northbound right-turn overlap phase would mitigate the project impact at this location.*
- **Sierra College Boulevard/Rocklin Road.** Addition of project traffic would result in the LOS at this intersection deteriorating from LOS C to LOS D during the p.m. peak and Saturday peak hours in the existing plus approved projects condition. *Adding a westbound through lane (resulting in two through lanes) would mitigate the project impact at this location.*
- **Sierra College Boulevard/King Road (Loomis).** The project would add traffic to this already-deficient location, which is operating at LOS D during the p.m. peak hour in the existing plus approved projects condition. *Adding a westbound right-turn lane by restriping the westbound approach would mitigate the project impact at this location.* Because the Town of Loomis controls what occurs at the intersection, however, the City conservatively concludes that, at the time of action by its City Council, the impact would be treated as **significant and unavoidable**, given that the City has no control over Loomis and thus cannot take for granted that the improvements contemplated by the mitigation will get implemented.

Table X shows the mitigated LOS at the study area locations.

12.B. 2030 plus Project Without Dominguez Road

The following improvements would mitigate the impacts of the project in the 2030 plus project without Dominguez Road conditions.

- **Rocklin Road/I-80 Westbound Ramps.** The project would add significant traffic to this location, which is projected to operate at an acceptable LOS D during the a.m. peak hour. The City has completed a feasibility study that identified three alternatives for improving the intersection of Rocklin Road/I-80 westbound ramps. One of the alternatives provides a flyover from westbound Rocklin Road to the I-80 westbound on ramp. Once the selected (preferred) interchange design is implemented it will mitigate the impact at this location. *Payment of the City's traffic fee as the means of funding the project's fair share to the City's cost for implementing one of the identified three alternatives included in the feasibility study completed by the City for improving the intersection of Rocklin Road/I-80 westbound ramps.* However, implementation requires the selection of a final design option, review and approval of Caltrans of the improvement plans, acquisition of right-of-way, and construction of the project

improvements. Until such time as the improvement design selection process is complete and Caltrans has approved the interchange reconstruction improvements, the City conservatively concludes that, at the time of action by its City Council, the impact would be treated as **significant and unavoidable**.

- **Sierra College Boulevard/Taylor Road (Loomis).** The project would add traffic to this location, which is projected to operate at LOS C during the p.m. peak hour and Saturday peak hour in the 2030 no project without Dominguez Road scenario. *Adding a westbound left-turn lane (resulting in dual left-turn lanes) and adding an eastbound right-turn overlap phase would mitigate the project's contribution to traffic at this location. The dual westbound left-turn lanes can be accommodated within the existing right-of-way by restriping the exclusive westbound through and right-turn lanes to a through/right-turn lane. To mitigate the project's contribution to traffic at this intersection, the project shall participate on a fair-share basis in the improvements at this intersection.* Because the Town of Loomis controls what occurs at the intersection, however, and because the City is uncertain as to whether the Town would be willing to cooperate in construction of the contemplated improvement within a reasonable period of time (i.e., prior to the issuance of occupancy permits), the City conservatively concludes that, at the time of action by the City Council, the impact would be treated as **significant and unavoidable**, given that the City has no control over the Town of Loomis and thus cannot assume that the improvements contemplated by the mitigation will be implemented. Consistent with CEQA Guidelines Section 15091, Subdivision (a)(2), however, the City concludes that the Town of Loomis can and should cooperate with the City in implementing the mitigation.
- **Barton Road/Rocklin Road (Loomis).** The proposed project would add traffic to this location and degrade it to an unacceptable LOS during the a.m. peak hour. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2030 no project without Dominguez Road scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. *Signalization of this intersection would result in a satisfactory LOS. To mitigate the project's contribution to traffic at this intersection, the project should participate on a fair-share basis in the installation of a traffic signal at Barton Road/Rocklin Road.* Because the Town of Loomis controls what occurs at the intersection, however, and because the City is uncertain as to whether the Town would be willing to cooperate in construction of the contemplated improvement within a reasonable period of time, the City conservatively concludes that, at the time of action by the City Council, the impact would be treated as **significant and unavoidable**, given that the City has no control over the Town of Loomis and thus cannot assume that the improvements contemplated by the mitigation will be implemented. Consistent with CEQA Guidelines Section 15091, Subdivision (a)(2), however, the City concludes that the Town of Loomis can and should cooperate with the City in implementing the mitigation.
- **Sierra College Boulevard/English Colony Way (Placer County).** This intersection would operate at an unsatisfactory LOS during the p.m. peak hour and Saturday midday peak hour in the 2030 no project condition. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2030 no project without Dominguez Road scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. *Signalization of this intersection would mitigate the project impact at this location. To mitigate the project's contribution to traffic at this intersection, the project shall participate on a fair-share basis in the installation of a signal at this intersection* Because the County controls what occurs at the intersection, however, and because the City is uncertain as to whether the County's CIP will

ensure that any fair-share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the City conservatively concludes that, at the time of action by the City Council, the impact would be treated as **significant and unavoidable**, given that the City has no control over the County and thus cannot assume that the improvements contemplated by the mitigation will be implemented. Consistent with CEQA Guidelines Section 15091, Subdivision (a)(2), however, the City concludes that the County can and should cooperate with the City in implementing the mitigation.

Table Y shows the mitigated LOS at the study area locations.

12.C. 2030 plus Project with Dominguez Road

The following improvements would mitigate the impacts of the project in the 2030 plus project with Dominguez Road conditions.

- **Sierra College Boulevard/Dominguez Road.** The proposed extension of Dominguez Road will create a deficiency during the Saturday midday peak hour at this intersection in the 2030 no project with Dominguez Road scenario. The proposed intersection striping will not be sufficient to accommodate project traffic in the 2030 plus project with Dominguez Road scenario. *However, if the currently proposed lane configuration were striped to accommodate dual left-turn lanes, two through lanes, and a shared through/right-turn lane in the southbound direction and a left turn lane, a through lane, a shared through/right turn lane and an exclusive right turn lane in the eastbound direction at the time of its construction, this intersection would be mitigated. This configuration can exist in the same right-of-way currently planned for this intersection.* The payment of City's traffic impact mitigation fee will mitigate the project's cumulative impact.
- **Sierra College Boulevard/English Colony Way (Placer County).** This intersection would operate at unsatisfactory LOS during the p.m. peak hour and Saturday midday peak hour in the 2030 no project condition. Addition of the project traffic would further degrade the intersection operation. The project adds more than 5 percent of the total traffic at this unsignalized intersection in the Saturday midday peak hour thus exceeding the threshold of significance. The intersection is forecast to meet the peak-hour traffic signal warrant in the 2030 no project with Dominguez Road scenario. The intersection would continue to meet the peak-hour traffic signal warrant with the addition of project traffic. *Signalization of this intersection would mitigate the project impact at this location. To mitigate the project's contribution to traffic at this intersection, the project shall participate on a fair-share basis in the installation of a signal at this intersection* Because the County controls what occurs at the intersection, however, and because the City is uncertain as to whether the County's CIP will ensure that any fair-share payment will actually result in construction of the contemplated improvement within a reasonable period of time, the City conservatively concludes that, at the time of action by the City Council, the impact would be treated as **significant and unavoidable**, given that the City has no control over the County and thus cannot assume that the improvements contemplated by the mitigation will be implemented. Consistent with CEQA Guidelines Section 15091, Subdivision (a)(2), however, the City concludes that the County can and should cooperate with the City in implementing the mitigation.

Table Z shows the mitigated LOS at the study area locations.

Table X: Existing Plus Approved Projects (Baseline) Plus Project Condition Peak Hour Intersection Level of Service Summary - With Mitigation

Intersection	Existing Plus Approved Plus Project Condition						Existing Plus Approved Plus Project Condition - With mitigation					
	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	0.822	D	1.061	F	0.838	D	0.601	B	0.718	C	0.557	A
2 Rocklin Road/Granite Drive	0.545	A	0.822	D	0.687	B	0.545	A	0.822	D	0.687	B
3 Rocklin Road/I-80 Westbound Ramps	22.7 sec	C	33.9 sec	C	23.4 sec	C	22.7 sec	C	33.9 sec	C	23.4 sec	C
4 Rocklin Road/I-80 Eastbound Ramps	29.4 sec	C	45.8 sec	D	25.5 sec	C	29.4 sec	C	45.8 sec	D	25.5 sec	C
5 Dominguez Road/Pacific Street ¹	0.445	A	0.547	A	0.399	A	0.445	A	0.547	A	0.399	A
6 Dominguez Road/Granite Drive* ¹	13.1 sec	B	16.3 sec	C	14.6 sec	B	13.1 sec	B	16.3 sec	C	14.6 sec	B
7 Sierra College Boulevard/Taylor Road ¹ (Loomis)	28.0 sec	C	32.8 sec	C	32.7 sec	C	28.0 sec	C	32.8 sec	C	32.7 sec	C
8 Sierra College Boulevard/Brace Road ¹ (Loomis)	18.1 sec	B	16.7 sec	B	16.8 sec	B	18.1 sec	B	16.7 sec	B	16.8 sec	B
9 Sierra College Boulevard/Granite Drive	0.606	B	0.763	C	0.807	D	0.606	B	0.763	C	0.807	D
10 Sierra College Boulevard/I-80 Westbound Ramps	20.0 sec	C	28.6 sec	C	34.7 sec	C	20.0 sec	C	28.6 sec	C	34.7 sec	C
11 Sierra College Boulevard/I-80 Eastbound Ramps	13.1 sec	B	26.2 sec	C	36.1 sec	D	13.1 sec	B	26.2 sec	C	36.1 sec	D
12 Sierra College Boulevard/Dominguez Road	-	-	-	-	-	-	-	-	-	-	-	-
13 Sierra College Boulevard/Rocklin Road ¹	0.791	C	0.836	D	0.809	D	0.665	B	0.787	C	0.659	B
14 Taylor Road/Horseshoe Bar Road ¹ (Loomis)	37.2 sec	D	44.5 sec	D	31.1 sec	C	37.2 sec	D	44.5 sec	D	31.1 sec	C
15 Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	19.1 sec	B	21.2 sec	C	22.4 sec	C	19.1 sec	B	21.2 sec	C	22.4 sec	C
16 Horseshoe Bar Road/I-80 Eastbound Ramps* ¹ (Loomis)	18.7 sec	C	24.6 sec	C	16.9 sec	C	18.7 sec	C	24.6 sec	C	16.9 sec	C
17 Barton Road/Brace Road* ¹ (Loomis)	10.7 sec	B	11.2 sec	B	11.5 sec	B	10.7 sec	B	11.2 sec	B	11.5 sec	B
18 Barton Road/Rocklin Road* ¹ (Loomis)	11.0 sec	B	13.2 sec	B	12.7 sec	B	11.0 sec	B	13.2 sec	B	12.7 sec	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	23.1 sec	C	41.7 sec	D	26.8 sec	C	18.8 sec	B	27.7 sec	C	21.4 sec	C
20 Sierra College Boulevard/English Colony Way* ¹ (Placer County)	11.7 sec	B	24.0 sec	C	18.8 sec	C	11.7 sec	B	24.0 sec	C	18.8 sec	C
21 Taylor Road/King Road ¹ (Loomis)	35.2 sec	D	32.1 sec	C	27.9 sec	C	35.2 sec	D	32.1 sec	C	27.9 sec	C

Notes:
 ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.
 * Indicates unsignalized intersection
¹ LOS C required for these intersections. LOS D acceptable for all other intersections.
 Mitigated condition
 (Shade) = Significant Impact

Table Y: 2030 Plus Project without Dominguez Road Condition Peak Hour Intersection Level of Service Summary - With Mitigation

Intersection	2030 Plus Project without Dominguez Road Condition						2030 Plus Project without Dominguez Road Condition - With Mitigation					
	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	1.246	F	1.213	F	0.942	E	1.246	F	1.213	F	0.942	E
2 Rocklin Road/Granite Drive	0.885	D	0.864	D	0.678	B	0.885	D	0.864	D	0.678	B
3 Rocklin Road/I-80 Westbound Ramps	56.4 sec	E	35.9 sec	D	26.9 sec	C	24.4 sec	C	13.5 sec	B	11.5 sec	B
4 Rocklin Road/I-80 Eastbound Ramps	70.4 sec	E	53.0 sec	D	22.4 sec	C	35.2 sec	D	31.8 sec	C	22.7 sec	C
5 Dominguez Road/Pacific Street ¹	1.001	F	0.872	D	0.619	B	1.001	F	0.872	D	0.619	B
6 Dominguez Road/Granite Drive* ¹	12.2 sec	B	16.8 sec	C	11.0 sec	B	12.2 sec	B	16.8 sec	C	11.0 sec	B
7 Sierra College Boulevard/Taylor Road ¹ (Loomis)	57.9 sec	E	37.6 sec	D	37.7 sec	D	50.5 sec	D	34.5 sec	C	32.2 sec	C
8 Sierra College Boulevard/Brace Road ¹ (Loomis)	24.0 sec	C	28.3 sec	C	22.1 sec	C	24.0 sec	C	28.3 sec	C	22.1 sec	C
9 Sierra College Boulevard/Granite Drive	0.948	E	0.784	C	0.673	B	0.948	E	0.784	C	0.673	B
10 Sierra College Boulevard/I-80 Westbound Ramps	54.9 sec	D	48.8 sec	D	45.5 sec	D	54.9 sec	D	48.8 sec	D	45.5 sec	D
11 Sierra College Boulevard/I-80 Eastbound Ramps	26.7 sec	C	52.7 sec	D	19.6 sec	B	26.7 sec	C	52.7 sec	D	19.6 sec	B
12 Sierra College Boulevard/Dominguez Road	0.530	A	0.501	A	0.424	A	0.530	A	0.501	A	0.424	A
13 Sierra College Boulevard/Rocklin Road ¹	1.443	F	1.248	F	1.036	F	1.443	F	1.248	F	1.036	F
14 Taylor Road/Horseshoe Bar Road ¹ (Loomis)	57.0 sec	E	57.3 sec	E	37.4 sec	D	57.0 sec	E	57.3 sec	E	37.4 sec	D
15 Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	19.0 sec	B	20.1 sec	C	21.6 sec	C	19.0 sec	B	20.1 sec	C	21.6 sec	C
16 Horseshoe Bar Road/I-80 Eastbound Ramps* ^{1,2} (Loomis)	71.9 sec	F	141.9 sec	F	38.5 sec	E	71.9 sec	F	141.9 sec	F	38.5 sec	E
17 Barton Road/Brace Road* ^{1,2} (Loomis)	15.2 sec	C	18.3 sec	C	15.1 sec	C	15.2 sec	C	18.3 sec	C	15.1 sec	C
18 Barton Road/Rocklin Road* ^{1,2} (Loomis)	27.0 sec	D	16.5 sec	C	13.5 sec	B	31.3 sec	C	22.7 sec	C	25.6 sec	C
19 Sierra College Boulevard/King Road ¹ (Loomis)	20.3 sec	C	19.9 sec	B	19.3 sec	B	20.3 sec	C	19.9 sec	B	19.3 sec	B
20 Sierra College Boulevard/English Colony Way* ^{1,2} (Placer County)	17.7 sec	C	105.3 sec	F	38.7 sec	E	16.3 sec	B	18.0 sec	B	14.1 sec	B
21 Taylor Road/King Road ¹ (Loomis)	37.2 sec	D	31.3 sec	C	28.5 sec	C	37.2 sec	D	31.3 sec	C	28.5 sec	C

Notes:

ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.

* Indicates unsignalized intersection

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 1000 seconds

☐ Mitigated condition

◼ (Shade) = Significant Impact

Table Z: 2030 Plus Project with Dominguez Road Condition Peak Hour Intersection Level of Service Summary - With Mitigation

Intersection	2030 Plus Project with Dominguez Road Condition						2030 Plus Project with Dominguez Road Condition - With Mitigation					
	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	1.219	F	1.210	F	0.922	E	1.219	F	1.210	F	0.922	E
2 Rocklin Road/Granite Drive	0.862	D	0.843	D	0.651	B	0.862	D	0.843	D	0.651	B
3 Rocklin Road/I-80 Westbound Ramps	54.5 sec	D	32.9 sec	C	26.0 sec	C	54.5 sec	D	32.9 sec	C	26.0 sec	C
4 Rocklin Road/I-80 Eastbound Ramps	58.9 sec	E	47.8 sec	D	22.0 sec	C	58.9 sec	E	47.8 sec	D	22.0 sec	C
5 Dominguez Road/Pacific Street ¹	0.901	E	0.882	D	0.639	B	0.901	E	0.882	D	0.639	B
6 Dominguez Road/Granite Drive* ¹	0.481	A	0.552	A	0.600	B	0.481	A	0.552	A	0.600	B
7 Sierra College Boulevard/Taylor Road ¹ (Loomis)	46.4 sec	D	34.3 sec	C	34.1 sec	C	46.4 sec	D	34.3 sec	C	34.1 sec	C
8 Sierra College Boulevard/Brace Road ¹ (Loomis)	23.8 sec	C	28.3 sec	C	22.0 sec	C	23.8 sec	C	28.3 sec	C	22.0 sec	C
9 Sierra College Boulevard/Granite Drive	0.787	C	0.642	B	0.527	A	0.787	C	0.642	B	0.527	A
10 Sierra College Boulevard/I-80 Westbound Ramps	51.7 sec	D	40.7 sec	D	45.9 sec	D	51.7 sec	D	40.7 sec	D	45.9 sec	D
11 Sierra College Boulevard/I-80 Eastbound Ramps	29.5 sec	C	50.1 sec	D	17.8 sec	B	29.5 sec	C	50.1 sec	D	17.8 sec	B
12 Sierra College Boulevard/Dominguez Road	0.811	D	0.748	C	1.126	F	0.890	D	0.599	A	0.899	D
13 Sierra College Boulevard/Rocklin Road ¹	1.425	F	1.182	F	0.971	E	1.425	F	1.182	F	0.971	E
14 Taylor Road/Horseshoe Bar Road ¹ (Loomis)	54.9 sec	D	56.4 sec	E	36.6 sec	D	54.9 sec	D	56.4 sec	E	36.6 sec	D
15 Horseshoe Bar Road/I-80 Westbound Ramps ¹ (Loomis)	19.0 sec	B	20.2 sec	C	21.7 sec	C	19.0 sec	B	20.2 sec	C	21.7 sec	C
16 Horseshoe Bar Road/I-80 Eastbound Ramps* ^{1,2} (Loomis)	64.3 sec	F	135.3 sec	F	35.1 sec	E	64.3 sec	F	135.3 sec	F	35.1 sec	E
17 Barton Road/Brace Road* ^{1,2} (Loomis)	14.7 sec	B	18.4 sec	C	15.1 sec	C	14.7 sec	B	18.4 sec	C	15.1 sec	C
18 Barton Road/Rocklin Road* ^{1,2} (Loomis)	34.3 sec	D	17.3 sec	C	13.3 sec	B	34.3 sec	D	17.3 sec	C	13.3 sec	B
19 Sierra College Boulevard/King Road ¹ (Loomis)	20.1 sec	C	19.9 sec	B	19.7 sec	B	20.1 sec	C	19.9 sec	B	19.7 sec	B
20 Sierra College Boulevard/English Colony Way* ^{1,2} (Placer County)	17.6 sec	C	105.6 sec	F	35.4 sec	E	16.4 sec	B	17.9 sec	B	14.3 sec	B
21 Taylor Road/King Road ¹ (Loomis)	37.1 sec	D	31.3 sec	C	28.5 sec	C	37.1 sec	D	31.3 sec	C	28.5 sec	C

- Notes:
- ICU V/C ratio is used for signalized intersections in the City of Rocklin. HCM delay in seconds is used for unsignalized intersections and in the Town of Loomis.
 - * Indicates unsignalized intersection
 - 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 1000 seconds
 - Mitigated condition
 - (Shade) = Significant Impact

APPENDIX A
TRAFFIC COUNTS

APPENDIX B
EXISTING LOS WORKSHEETS

APPENDIX C

EXISTING PLUS PROJECT LOS WORKSHEETS

APPENDIX D
APPROVED PROJECTS LIST

APPENDIX E

EXISTING PLUS APPROVED PROJECTS LOS WORKSHEETS

APPENDIX F

**EXISTING PLUS APPROVED PROJECTS PLUS PROJECT
LOS WORKSHEETS**

APPENDIX G

2030 NO PROJECT WITHOUT DOMINGUEZ ROAD TRAFFIC VOLUME DEVELOPMENT AND LOS WORKSHEETS

APPENDIX H

**2030 PLUS PROJECT WITHOUT DOMINGUEZ ROAD
LOS WORKSHEETS**

APPENDIX I

**2030 NO PROJECT WITH DOMINGUEZ ROAD
TRAFFIC VOLUME DEVELOPMENT AND LOS WORKSHEETS**

APPENDIX J

**2030 PLUS PROJECT WITH DOMINGUEZ ROAD
LOS WORKSHEETS**

APPENDIX K

**EXISTING PLUS APPROVED PROJECTS AND EXISTING PLUS
APPROVED PROJECTS PLUS PROJECT**

FREEWAY SEGMENTS – HCS PLUS ANALYSIS

APPENDIX L

2030 WITHOUT DOMINGUEZ ROAD (WITHOUT AND PLUS PROJECT)

FREEWAY SEGMENTS – HCS PLUS ANALYSIS

APPENDIX M

2030 WITH DOMINGUEZ ROAD (WITHOUT AND PLUS PROJECT)

FREEWAY SEGMENTS – HCS PLUS ANALYSIS