2.3 Transportation/Traffic

2.3.S Executive Summary

This subchapter of the EIR analyzes the project's impacts to roads, intersections, and Caltrans' facilities (freeway segments and intersections). As is often the case with traffic analysis, this subchapter is complex, and presents a lot of information which could be difficult for a lay reader to understand. The Executive Summary provides an overview of the results of the analysis assuming full build-out of the proposed project. This summary provides a breakdown of traffic impacts by direct and cumulative conditions. While the analysis below identifies each impact by number, the summary simply lists the impact by name. Each impact is also assigned a mitigation measure which reduces the impact to less than significant or there is an indication that the impact would remain unavoidable. Details of all mitigation measures and rationale for remaining impacts are described below. Table S-1 also provides a summary of project impacts, mitigation, and whether impacts are reduced to less than significant through mitigation measures or whether impacts would remain unavoidable.

2.3.S.1 Significant Direct Impacts

The project would have significant direct impacts to each of the road segments listed below. The mitigation for each impact is also listed, as well as the conclusion as to whether the impact would be mitigated.

- Gopher Canyon Road, between E. Vista Way and I-15 SB: No feasible mitigation. Impact would remain significant and unavoidable.
- E. Vista Way, between Gopher Canyon Road and Osborne Street: No feasible mitigation. Impact would remain significant and unavoidable.
- West Lilac Road, between Old Highway 395 and Main Street: Impact would be mitigated through improvement of the road segment to Mobility Element Road Classification 2.2C, subject to exceptions as approved by the County. Impacts would be reduced to less than significant.
- E. Vista Way, between SR-76 and Gopher Canyon Road: No feasible mitigation. Impact would remain significant and unavoidable.

The project would have a significant direct impact to each of the intersections listed below. The mitigation for each impact is also listed, as well as the conclusion as to whether the impact would be mitigated.

- I-15 SB Ramps/Gopher Canyon Road intersection: Impact would be mitigated through installation of traffic signals. Impact would be reduced to less than significant.
- I-15 NB Ramps/Gopher Canyon Road intersection: Impact would be mitigated through installation of traffic signals. Impact would be reduced to less than significant.
- Old Highway 395/West Lilac Road: Impact would be mitigated through installation of traffic signals. Impact would be reduced to less than significant.

- Old Highway 395/Circle R Drive: Impact would be mitigated through installation of traffic signals. Impact would be reduced to less than significant.

2.3.S.2 Significant Cumulative Impacts

The project would have a significant cumulative impact to each of the road segments listed below. The mitigation for each impact is also listed, as well as the conclusion as to whether the impact would be mitigated.

- Camino Del Rey between Old River Road and West Lilac Road: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.
- Gopher Canyon Road between E. Vista Way and I-15 SB Ramps: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.
- E. Vista Way between SR-76 and Gopher Canyon Road: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.
- E. Vista Way between Gopher Canyon Road and Osborne Street: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.
- Pankey Road between Pala Mesa Drive and SR-76: Impact would be mitigated by (a) payment to the TIF Program after the TIF Program has been updated to include this facility, or (b) constructing, or agreeing to construct Pankey Road from Pala Mesa Drive to SR-76 to a Mobility Element 4.2B classification. Absent the update to the TIF, the alternative mitigation measure would be infeasible because it would not be roughly proportional to project impacts and the impact would remain significant and unavoidable.
- Lilac Road between Old Castle Road and Anthony Road: Impact would be mitigated by (a) payment to the TIF Program after the TIF Program has been updated to include this facility, or (b) by construction, or agreeing to construct intermittent left-turn lanes at major access locations along Lilac Road, between Old Castle Road and Anthony Road. Impact would be reduced to less than significant.
- Cole Grade Road, between Fruitvale Road and Valley Center Road: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.

The project would have a significant cumulative impact to each of the intersections listed below. The mitigation for each impact is also listed, as well as the conclusion as to whether the impact would be mitigated.

- E. Vista Way/Gopher Canyon Road: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.
- SR-76/Old River Road/E. Vista Way: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.

- SR-76/Olive Hill Road/Camino Del Rey: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.
- SR-76/Pankey Road: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.
- Old Highway 395/West Lilac Road: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.
- I-15 SB Ramps/Gopher Canyon Road: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.
- I-15 NB Ramps/Gopher Canyon Road: Impact would be mitigated through payment to the TIF Program. Impact would be reduced to less than significant.
- Old Highway 395/E. Dulin Road: Impact would be mitigated by (a) payment to the TIF Program after the TIF Program has been updated to include this facility, or by (b) constructing or agreeing to construct traffic signals. Impact would be reduced to less than significant.
- Miller Road/Valley Center Road: Impact would be mitigated by (a) payment to the TIF Program after the TIF Program has been updated to include this facility, or by (b) constructing or agreeing to construct traffic signals. Impact would be reduced to less than significant.
- SR-76/Old Highway 395: Because improvements necessary to reduce significant cumulative impacts are the responsibility of another jurisdiction (Caltrans), and no program is available to which the applicant could make a fair share contribution, no feasible mitigation measures are available. Impact would remain significant and unavoidable.
- I-15 SB Ramps/Old Highway 395: Because improvements necessary to reduce significant cumulative impacts are the responsibility of another jurisdiction (Caltrans), and no program is available to which the applicant could make a fair share contribution, no feasible mitigation measures are available. Impact would remain significant and unavoidable.
- I-15 SB Ramps/Old Highway 395: Because improvements necessary to reduce significant cumulative impacts are the responsibility of another jurisdiction (Caltrans), and no program is available to which the applicant could make a fair share contribution, no feasible mitigation measures are available. Impact would remain significant and unavoidable.

The project would have a significant cumulative impact to each of the segments of the I-15 listed below. The mitigation for each impact is also listed, as well as the conclusion as to whether the impact would be mitigated.

- Between Riverside County Boundary and Old Highway 395.
- Between Old Highway 395 and SR-76.
- Between SR-76 and Old Highway.
- Between Old Highway 395 and Gopher Canyon Road.
- Between Gopher Canyon Road and Deer Springs Road.

- Between Deer Springs Road and Centre City Parkway.
- Between Centre City Parkway and El Norte Parkway.
- Between El Norte Parkway and SR-78.

For each of these I-15 segments, improvements necessary to reduce significant cumulative impacts are the responsibility of another jurisdiction (Caltrans), and no program is available to which the applicant could make a fair share contribution, no feasible mitigation measures are available to reduce the significant cumulative impacts at these three intersections. The impacts would remain significant and unavoidable.

Traffic Analysis

The following discussion is based on the Traffic Impact Study (TIS) (Chen Ryan Associates 2013) to evaluate possible traffic impacts for the project. The complete traffic study is included in this EIR as Appendix E. This subchapter includes the following nine scenarios for the project's immediate, near-term, and long-term impacts.

- Existing Conditions – establishes the baseline traffic operations within the study area.
- Existing Plus Project (Traffic Scenario A) – represents the existing transportation network and the addition of traffic from Phase 1 of the proposed project.
- Existing Plus Project (Traffic Scenario B) – represents the existing transportation network and the addition of traffic from Phases 1 and 4 of the proposed project.
- Existing Plus Project (Traffic Scenario C) – represents the existing transportation network and the addition of traffic from Phases 1, 4, and 2 of the proposed project.
- Existing Plus Project (Traffic Scenario D) – represents the existing transportation network and the addition of traffic from Phases 1, 4, 2, and 5 of the proposed project.
- Existing Plus Project (Traffic Scenario E, Project Build-out) – represents the existing transportation network and the addition of traffic from build-out of all phases of the proposed project.
- Existing Road Conditions Plus Project (Build-out) - The Existing Road Conditions Plus Project (Build-out) scenario includes the project's build-out traffic volumes added to the existing traffic volumes and existing roadway configurations and is shown in Traffic Scenarios A –E above as required by the County's Guidelines for Determining Significance for Traffic.
- Existing Plus Cumulative Projects Plus Project - represents cumulative traffic conditions, including existing baseline traffic, traffic from foreseeable land development projects, and traffic from build-out of the proposed project.

This subchapter also provides a discussion of the correlation between the General Plan Land Use Element and Mobility Element at build-out of the Land Use Element as amended by the proposed project and build-out under the existing General Plan Land Use

Element/Mobility Element. SANDAG recently acquired the 902-acre Rancho Lilac property through its Environmental Mitigation Program (EMP) and recorded of a conservation easement over the entire property. It is anticipated that this acquisition would prevent implementation of the County's planned Road 3 in its current alignment. Therefore, this correlation discussion identifies two scenarios, one without the construction of Road 3 and one with the construction of Road 3.

2.3.1 Existing Conditions

2.3.1.1 Existing Regulations

Several existing regulations provide transportation and traffic guidance, including federal, regional, and County programs and regulations. Applicable regulations are discussed below and include the Highway Capacity Manual (HCM), Regional Transportation Plan (RTP), State Transportation Improvement Program (STIP), Regional Transportation Improvement Program, CMP, Regional Growth Management Strategy, Guide for the Preparation of Traffic Impact Studies, and the County General Plan Mobility Element.

Federal

2000 Highway Capacity Manual

Prepared by the Transportation Research Board, the 2000 HCM is a joint effort between the Transportation Research Board, Federal Highway Administration (FHWA), and American Association of State Highway and Transportation Officials to provide concepts, guidelines, and computational procedures for calculating capacity and quality of service for highway facilities, including freeways, intersections (signalized and unsignalized), and rural highways. In addition, the 2000 HCM addresses the effects of transit, pedestrians, and bicycles on transportation system performance.

Regional

Regional Transportation Plan

SANDAG's 2050 RTP serves as the regional transportation planning document for the San Diego region. It is a long-range advisory plan for transit, rail, and bus services, express or managed lanes, highways, local streets, bicycling, and walking. The RTP focuses on a Sustainable Communities Strategy consistent with SB 375, which seeks to promote social equality in developing the transportation system, projections on reasonably available financial resources, and offering more travel choices.

State Transportation Improvement Program

The California STIP, approved by the U.S. Department of Transportation in October 2006, is a multi-year, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes, metropolitan plans, and Title 23 of the Code of Federal Regulations. The STIP is prepared by Caltrans in cooperation with the Metropolitan Planning Organizations (MPOs) and the regional transportation planning agencies. In San Diego County, the MPO and regional transportation planning agency is SANDAG. The STIP contains all capital and non-

capital transportation projects or identified phases of transportation projects for funding under the Federal Transit Act and Title 23 of the U.S. Code, including federally funded projects.

Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) is also a multi-year program that includes all proposed major highway, arterial, transit, and non-motorized projects in the region. The 2008 RTIP was adopted in July 2008, for Fiscal Years 2008 to 2013.

Guide for the Preparation of Traffic Impact Studies

Caltrans' Guide for the Preparation of Traffic Impact Studies outlines recommended traffic study content. Thresholds are not identified in this guide; Caltrans staff typically considers freeway operations at or above LOS D to be acceptable. A significant freeway impact is typically identified if a project traffic causes the operations to drop one letter grade in the unacceptable LOS range (i.e., from LOS E to LOS F).

County

General Plan Mobility Element

The General Plan Mobility Element "provides a framework for a balanced, multi-modal transportation system for the movement of people and goods within the unincorporated areas of the County of San Diego." While the Mobility Element is focused on adequate transportation, guidance is provided to maintain community character, and to reduce VMT, gasoline consumption and greenhouse gas emissions as well.

Public and Private Road Standards

The County has road standards for both public and private roadways. These standards provide minimum design and construction requirements for roadways. The Mobility Element includes LOS standards for Mobility Element roads, which are based upon typical peak traffic periods. Non-Mobility Element roads are not evaluated by LOS standards, but by target design capacities. Mobility Element roads are constructed based on the Public Road Standards. Private roads are constructed based on the Private Road Standards, which are not based on LOS criteria, but are based on average daily trips (ADT).

Transportation Impact Fee Program and Ordinance

The County adopted the TIF Ordinance that establishes the TIF program. The primary purpose of the TIF is to fund the construction of identified roadway facilities needed to reduce or mitigate projected cumulative traffic impacts and to allocate the costs of these roadway facilities proportionally among future developing properties based upon their individual cumulative traffic impacts (County Guidelines for Determining Significance-Traffic). TIF fees provide for improvements to cumulatively impacted County or other identified roadway facilities (state highway and ramps). The TIF is collected as a condition of approval or prior to the issuance of a building permit. The program provides a mechanism for contributions towards improvements to mitigate cumulative impacts identified within each TIF Local Area and TIF Region. The TIF is

designed to be regularly updated to meet the changing needs of the County. It is anticipated that the TIF Program would be updated to add additional facilities to mitigate potential cumulative impacts as identified in the TIS. As stated in the TIF program, "[t]here is a reasonable relationship between the amount of the fee and the cost of transportation facilities, or portions thereof, attributable to future development because the TIF is derived from a TDU formula that considers trip generation rates and vehicle miles traveled by land use type to correlate impact to specific development types" (Section 77.203[5]).

2.3.1.2 Existing Roadway Characteristics for Study Area

The study area for the TIS, as shown in Figure 2.3-1, was delineated based on the area where the project would add 50 or more peak hour trips in either direction to a local roadway, and where the project would add trips that result in freeway ramp queues exceeding the ramp storage capacity. A summary of the existing roadways is provided below.

I-15 is a grade separated freeway and ranges from 8 to 10 lanes within the study area. The travel lanes are generally 12 feet wide and the shoulders are generally 10 to 12 feet wide. Two interchanges (at Old Highway 395 and at Gopher Canyon Road) are located within the study area providing regional access for the proposed project. The posted speed limit is 70 miles per hour (mph) along I-15 in the vicinity of the project.

SR-76 is a two-lane undivided highway within the study area, except for the segment between Old Highway 395 and the I-15 southbound ramps, where this road has four lanes. SR-76, between Melrose Drive and S. Mission Road (the SR-76 Middle Segment) was completed in early 2013. The SR-76 East Segment between S. Mission Road and just east of I-15 is also planned to be widened to four lanes by 2015. Class II bike lanes are planned along SR-76 within the study area.

Dulin Road east of Old Highway 395 is currently a two-lane undivided roadway with a posted speed limit of 25 mph. On-street parking is provided along both sides of the street in the residential area. The facility is classified as a Community Collector (2.1E) in the County General Plan Mobility Element.

West Lilac Road between Camino Del Rey and Old Highway 395, is generally a two-lane undivided roadway and is classified as a Light Collector (2.2E) with Class II bike lanes in the County General Plan Mobility Element. The segment from Old Highway 395 to Lilac Road is also a two-lane undivided roadway. West Lilac Road between Old Highway 395 and Covey Lane is classified as a Light Collector with intermittent turn lanes (2.2C) in the County General Plan Mobility Element, while the segment between Covey Lane and Lilac Road is classified as a Light Collector with reduced shoulder (2.2F). A posted speed limit was not observed along this road.

Camino Del Cielo is a two-lane roadway with a wide median or a two-way left-turn lane between Camino Del Rey and Via Casitas and a two-lane undivided roadway between Via Casitas and West Lilac Road. This road has a posted speed limit of 40 mph and is classified as a Light Collector (2.2E) in the County General Plan Mobility Element.

Camino Del Rey is generally a two-lane undivided roadway between SR-76 and Old Highway 395 with the exception of the segment (approximately 2,400 feet) east of West

Lilac Road, which has either a striped median or a two-way left-turn lane. The posted speed limit along this road is 45 to 50 mph. Camino Del Rey is classified in the County General Plan Mobility Element as a Boulevard with intermittent turn lanes (4.2B) between SR-76 and Camino Del Cielo, and a Light Collector (2.2C) between Camino Del Cielo and Old Highway 395. Class II bikes lanes are planned along this road, between Old River Road and Old Highway 395.

Covey Lane is currently a two-lane undivided private road for its entirety. A speed limit is not posted along this facility. However, a recent travel speed survey (as shown in Appendix E of the TIS) conducted by NDS indicates that the 85th percentile travel speeds along Covey Lane are approximately 30–35 mph. It is proposed that this facility, approximately 600 feet west of West Lilac Road to the Lilac Hills Ranch project boundary, be designated as a public road due to the existing irrevocable offer for dedication (IOD) for road improvements in this area. Covey Lane would provide an unrestricted access to the project north of Covey Lane and a restricted access to the senior community.

Rodriguez Road is currently an unclassified, 40-foot-wide easement that is currently 40 feet in width. It would be paved 24 feet and would provide emergency access to the project site.

Gopher Canyon Road is a two-lane undivided roadway between E. Vista Way and I-15 southbound ramps and a four-lane roadway with a striped median between I-15 southbound ramps and Old Highway 395. This road has a posted speed limit of 50 mph and is classified as a Major Road with intermittent turn lanes (4.1B) and Class III bike routes in the County General Plan Mobility Element.

Circle R Drive is a two-lane undivided roadway between Old Highway 395 and West Lilac Road and is classified as a Light Collector (2.2E). A posted speed limit was not observed along this road.

Old Castle Road between Old Highway 395 and Lilac Road is a two-lane undivided roadway with a posted speed limit that varies from 45 mph to 55 mph. This road is classified as a Light Collector with improvement options (2.2D) in the County General Plan Mobility Element, and includes a Class III bike route.

E. Vista Way between SR-76 and Osborne Street is generally a two-lane roadway with a two-way left-turn lane and a posted speed limit of 50 mph. This road is classified as a Major Road with raised median (4.1A) and Class II bike lanes in the County General Plan Mobility Element.

Old River Road between SR-76 and Camino Del Rey is generally a two-lane undivided roadway with the exception of the segment southwest of Golf Club Drive (approximately 1,800 feet), which has a wide raised median and on-street parking along both sides. The posted speed limit in this area is 25 mph. Old River Road is classified as a Light Collector with intermittent turn lanes (2.2C) in the County General Plan Mobility Element.

Old Highway 395 between Pala Mesa Drive and Old Castle Road is generally a two-lane roadway with passing option and turn pocket/striped median at Pala Mesa Drive, Dulin Road (west), West Lilac Road, I-15 southbound and northbound ramps, Palos Verdes Drive, Camino Del Rey, the recreational vehicle (RV) campgrounds entrance/exit, Circle

R Drive, Gopher Canyon Road, and Old Castle Road. Class II bike lanes are marked on both sides of this facility within the study area. A posted speed limit was not observed along this segment. Old Highway 395 is classified as a Boulevard with intermittent turn lanes (4.2B) between Pala Mesa Drive and SR-76, a Community Collector with improvement options (2.1D) between SR-76 and West Lilac Road, a Boulevard with intermittent turn lanes (4.2B) between West Lilac Road and I-15 northbound ramps, and a Major Road with intermittent turn lanes (4.1B) between I-15 northbound ramps and Old Castle Road in the County General Plan Mobility Element.

Champagne Boulevard between Old Castle Road and Lawrence Welk Drive is a two-lane roadway with passing options and turn lanes. The posted speed limit is 55 mph. Class II bike lanes are marked on both sides of this facility. Champagne Boulevard is classified as a Major Road with intermittent turn lanes (4.1B) within the study area in the County General Plan Mobility Element.

Mountain Ridge Road north of Circle R Drive is a two-lane undivided private road (not a Mobility Element road). A posted speed limit was not observed along this segment. This road would connect to Lilac Hills Ranch Road and would provide access to the southern portion of the project for residents and guests of Phase 5 and for emergency vehicles.

Lilac Road is generally a two-lane roadway with turn lanes at Lilac School driveway, Old Castle Road, Anthony Road, Betsworth Road, and Valley Center Road. The posted speed limit is 55 mph just west of Valley Center Road. Lilac Road is classified as a Light Collector (2.2E) between Couser Canyon Road and Old Castle Road, a Community Collector with intermittent turn lanes (2.1C) between Old Castle Road and Anthony Road, and a Boulevard with intermittent turn lanes (4.2B) between Anthony Road and Valley Center Road in the County General Plan Mobility Element. Class III bike routes are also planned between Old Castle Road and Valley Center Road.

Valley Center Road between Woods Valley Road and Cole Grade Road is a four-lane roadway with a raised median or a two-way left-turn lane, Class II bike lanes, and a posted speed of 45 mph. East of Cole Grade Road, Valley Center Road is a two-lane undivided roadway. Valley Center Road is classified as a Boulevard with raised median (4.2A) between Woods Valley Road and Lilac Road and between Miller Road and Vesper Road and a Major Road with raised median (4.1A) between Lilac Road and Miller Road in the County General Plan Mobility Element.

Miller Road north of Valley Center Road is a two-lane undivided roadway and is classified as a Minor Collector with intermittent turn lanes (2.3B) and Class III bike routes in the County General Plan Mobility Update. A posted speed limit was not observed along this segment.

Cole Grade Road between Fruitvale Road and Valley Center Road is generally a two-lane roadway with a two-way left-turn lane, Class II bike lanes and a posted speed limit of 45 mph. A 25 mph school zone is located just north of Valley Center Road. This facility is classified as a Boulevard with raised median (4.2A) in the County General Plan Mobility Element.

The following 31 key study area intersections, including 23 under the County of San Diego's jurisdiction and 8 under Caltrans jurisdiction, were analyzed in the study area:

1) E. Vista Way/Gopher Canyon Road
2) SR-76/Old River Road/E. Vista Way (Caltrans)
3) SR-76/Olive Hill Road/Camino Del Rey (Caltrans)
4) Old River Road/Camino Del Rey
5) West Lilac Road/Camino Del Rey
6) Old Highway 395/SR-76 (Caltrans)
7) Pankey Road/SR-76 (Caltrans)
8) Old Highway 395/E. Dulin Road
9) Old Highway 395/West Lilac Road
10) I-15 Southbound Ramps/Old Highway 395 (Caltrans)
11) I-15 Northbound Ramps/Old Highway 395 (Caltrans)
12) Old Highway 395/Camino Del Rey
13) Old Highway 395/Circle R Drive
14) I-15 SB Ramps/Gopher Canyon Road (Caltrans)
15) I-15 NB Ramps/Gopher Canyon Road (Caltrans)
16) Old Highway 395/Gopher Canyon Road
17) Old Highway 395/Old Castle Road
18) West Lilac Road/Covey Lane
19) Mountain Ridge Road/Circle R Drive
20) West Lilac Road/Circle R Drive
21) Lilac Road/West Lilac Road
22) Lilac Road/Old Castle Road
23) Valley Center Rd/Lilac Road
24) Miller Road/Valley Center Road
25) Cole Grade Road/Valley Center Road
26) Street 'O'/West Lilac Road/Main Street
27) Main Street/Street 'C'
28) Lilac Hills Ranch Road/Main Street North
29) Lilac Hills Ranch Road/Main Street South
30) Street 'Z'/Main Street
31) West Lilac Road/Street 'F'/Main Street

Intersections 26 through 31 include new streets internal to the project and are therefore included in the "plus Project" assessments only.

2.3.1.3 Existing Levels of Service (LOS)

LOS is a quantitative performance measure (speed, travel time, and comfort) that represents quality of service. Quality of service describes how well a transportation facility or service operates from a traveler's perspective. A vehicle LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, comfort, convenience, and safety. LOS A represents the best operating conditions from a driver's perspective (primarily free-flow operation), while LOS F represents the worst case where traffic flow is at extremely low speed.

The volume-to-capacity (V/C) ratio is a measure of traffic demand on a facility (expressed as volume; V) compared to its traffic-carrying capacity (C). In evaluating the performance of a roadway segment under the existing conditions, V/C is considered together with LOS.

Traffic volumes on study area segments and intersections during AM and PM peak hours are based on daily roadway traffic counts and peak period manual traffic counts at intersections.

The existing roadway conditions are shown in Figure 2.3-2. The existing ADT volumes are shown on Figure 2.3-3. The intersection configuration and peak hour traffic volumes under the existing conditions are shown in Figures 2.3-4a and 2.3-4b.

Roadway Segments

As shown in Table 2.3-1, under existing conditions, all study roadways operate at LOS D or better with the exception of the following three segments:

- Gopher Canyon Road between E. Vista Way and I-15 SB Ramps (LOS E);
- E. Vista Way between SR-76 and Gopher Canyon Road (LOS E); and
- E. Vista Way between Gopher Canyon Road and Osborne Street (LOS F).

Intersections

As shown in Table 2.3-2, under existing conditions, all study area intersections operate at LOS D or better with the exception of the following four intersections:

- SR-76/Old River Road/E. Vista Way (Caltrans) (LOS E - AM peak hour);
- SR-76/Olive Hill Road/Camino Del Rey (Caltrans) (LOS E - PM peak hour);
- I-15 Southbound Ramps/Gopher Canyon Road (Caltrans) (LOS F - AM and PM peak hours); and
- I-15 Northbound Ramps/Gopher Canyon Road (Caltrans) (LOS F - PM peak hour).

Two-Lane Highway

As shown in Table 2.3-3, all of the study area segments along Old Highway 395 are currently operating at acceptable LOS D or better.

TABLE 2.3-3
TWO-LANE HIGHWAY LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS

Two-Lane Highway	From	To	LOS Threshold (LOS D)	Traffic Count Date	Average Daily Traffic (ADT)	Level of Service (LOS)
Old Highway 395	Pala Mesa Drive	SR-76	16,200	Mar-12	4,770	D or better
	SR-76	E. Dulin Road	16,200	Mar-11	4,720	D or better
	E. Dulin Road	West Lilac Road	16,200	Mar-11	4,340	D or better
	West Lilac Road	I-15 SB Ramps	16,200	Mar-11	4,450	D or better
	I-15 SB Ramps	I-15 NB Ramps	16,200	Mar-11	3,600	D or better
	I-15 NB Ramps	Camino Del Rey	16,200	Mar-11	2,430	D or better
	Camino Del Rey	Circle R Drive	16,200	Mar-11	5,820	D or better
	Circle R Drive	Gopher Canyon Road	16,200	Mar-11	10,710	D or better
	Gopher Canyon Road	Old Castle Road	16,200	Mar-11	8,660	D or better

SOURCE: Chen Ryan Associates 2013.
ADT = average daily traffic
LOS = level of service

Freeway Segments

As shown in Table 2.3-4, all study area segments along I-15 currently operate at acceptable LOS D or better under the existing conditions.

It is noted that while SR-76 is near the project, the project would not add more than 50 peak hour trips in either direction to the SR-76 and, therefore was not included in the traffic analysis.

Freeway Ramp Intersection Capacity

The TIS provides an analysis of freeway ramp capacity in the existing and all Traffic Scenario conditions, including project build-out. This analysis is provided pursuant to Caltrans' requirements; all signalized intersections at freeway ramps were analyzed using Intersecting Lane Volume (ILV) procedures as described in Topic 406 of the Caltrans *Highway Design Manual* (HDM) (2012). Details of the ILV analysis are discussed throughout the TIS.

2.3.1.4 Existing Parking, Transit, and On-site Circulation

The project site generally consists primarily of agricultural uses. Based upon field reviews, parking and on-site circulation are adequately provided. Transit services are not currently provided on or within a ¼ mile of the project site.

2.3.2 Analysis of Project Effects and Determination of Significance

The project would result in a significant impact if it would:

1. *Circulation System Operations*: Conflict with an applicable plan, ordinance, or policy relating to the performance of the circulation system.

2. *Congestion Management*: Conflict with an applicable congestion management program.

3. *Hazards*: Substantially increase a hazard due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

4. *Conflicts with Public Transit Plans*: Conflict with an adopted policy, plan, or program regarding public transit, bicycle, or pedestrian facilities.

The State CEQA Guidelines, Appendix G, XV Transportation/Traffic lists two other transportation/traffic-related questions (c and e), which are not addressed in this subchapter. In accordance with the County's Guidelines for Determining Significance – Transportation and Traffic (San Diego County 2011b), emergency access is discussed in subchapter 2.7, Hazards and Hazardous Materials, and air traffic patterns are discussed in subchapter 3.2.

2.3.2.1 Issue 1: Circulation System Operations and Congestion Management

Guidelines for the Determination of Significance

The basis for the determination of significance is the County of San Diego Guidelines for Determining Significance – Transportation and Traffic (San Diego County 2011b). All of the guidelines are derived from accepted state and local standards for significant impacts based on levels of service. A significant direct or cumulative impact would occur if project traffic exceeds any of the following thresholds:

Roadway Segments

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or LOS traffic impact on a road segment, unless specific facts show that there are circumstances that mitigate or avoid such impacts:

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Mobility Element Road or State Highway currently operating at LOS E or LOS F as identified in Table 2.3-5, or will cause a Mobility Element Road or State Highway to operate at LOS E or LOS F as a result of the proposed project, or

- The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity.

TABLE 2.3-5
MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION ON ROAD SEGMENTS: ALLOWABLE INCREASES ON CONGESTED ROAD SEGMENTS

Level of Service	Two-Lane Road	Four-Lane Road	Six-Lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

SOURCE: San Diego County 2011b.

Two-Lane Highways with Signalized Intersection Spacing Over One Mile

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a two-lane highway facility with signalized intersection spacing greater than one mile:

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a two-lane highway segment currently operating at LOS E or LOS F, as identified in Table 2.3-6, or will cause a two-lane highway segment to operate at LOS E or LOS F as a result of the proposed project.

TABLE 2.3-6
MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION:
ALLOWABLE INCREASES ON TWO-LANE HIGHWAYS
WITH SIGNALIZED INTERSECTION SPACING OVER ONE MILE

Level of Service	LOS Criteria	Impact Significance Level
LOS E	> 16,200 ADT	> 325 ADT
LOS F	> 22,900 ADT	> 225 ADT

SOURCE: San Diego County 2011b.
NOTE: Where detailed data are available, the Director of Public Works may also accept a detailed level of service analysis based upon the two-lane highway analysis procedures provided in the Chapter 20 Highway Capacity Manual.

Two-Lane Highways with Signalized Intersection Spacing Under One Mile

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a two-lane highway facility with signalized intersection spacing less than one mile:

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a two-lane highway segment currently operating at LOS E or LOS F, as identified in Table 2.3-7, or will cause a two-lane highway segment to operate at LOS E or LOS F as a result of the proposed project.

TABLE 2.3-7
MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION:
ALLOWABLE INCREASES ON TWO-LANE HIGHWAYS
WITH SIGNALIZED INTERSECTION SPACING UNDER ONE MILE

Level of Service	LOS Criteria
LOS E	Intersection delay of 2 seconds
LOS F	Intersection delay of 1 second, or 5 peak hour trips on a critical movement

SOURCE: San Diego County 2011b.
NOTES:
1. A critical movement is one that is experiencing excessive queues.
2. By adding proposed project trips to all other trips from a list of projects, this same table is used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate its share of the cumulative impacts.
3. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

Signalized Intersections

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a signalized intersection:

- The additional or redistributed ADT generated by the project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F as identified in Table 2.3-8, or will cause a signalized intersection to operate at LOS E or LOS F.

TABLE 2.3-8
MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION ON INTERSECTIONS: ALLOWABLE INCREASES ON CONGESTED INTERSECTIONS

Level of Service	Signalized	Unsignalized
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement

SOURCE: San Diego County 2011b.
NOTES:
1. A critical movement is one that is experiencing excessive queues.
2. By adding project trips to all other trips from a list of projects, this same table is used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate its share of the cumulative impacts.
3. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

Unsignalized Intersections

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a road segment:

- The additional or redistributed ADT generated by the proposed project will add 20 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D, or
- The additional or redistributed ADT generated by the proposed project will add 20 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E, or
- The additional or redistributed ADT generated by the proposed project will add 5 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or
- The additional or redistributed ADT generated by the proposed project will add 5 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or

- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the project would significantly impact the operations of the intersection.

Analysis

Construction

Construction traffic would be generated primarily from construction workers, deliveries, and waste hauling. The TIS estimates a total (truck trips plus construction worker) of 537 daily trips at the peak of construction. Project construction is expected to be phased over 20 years. As discussed in the Chapter 1.0 and in Table 1-3, the project includes the creation of a traffic control plan and construction traffic would be subject to the conditions outlined in that plan. The project is designed to have the overall earthwork balanced on-site although spoil deposition or borrow permits may be needed for individual phases; therefore, no off-site import or export of soil is anticipated.

The worst-case scenario would occur during the last project phase when previous phases would be occupied. Therefore, the phase just prior to build-out plus construction traffic would be the worst-case scenario and would generate a total of 13,473 daily trips. It is reasonable to conclude that the worst-case scenario associated with construction (13,473 ADT) would cause fewer impacts than those associated with build-out of the project (19,428 ADT). Therefore, the project would result in a temporary increase in construction traffic on local area roadways; however, the amount of temporary construction traffic would be less than the amount of permanent project traffic analyzed below. Considering construction staging would occur on-site and construction trips would not be local trips, these trips would likely be distributed from the site to Circle R Road or West Lilac Road to the I-15. A traffic control plan would be completed to manage construction traffic and ensure impacts are **less than significant**.

Project Trip Generation

Trip generation rates for the project were developed based on SANDAG's *Guide to Vehicular Traffic Generation Rates for the San Diego Region* (April 2002), *ITE (Institute of Transportation Engineers) Trip Generation Manual* (8th Edition).

Total trip generation was calculated for the project (Table 2.3-9). Individual breakdowns for each phase of the project are included in the TIS. A total of 19,428 daily trips would be generated by project build-out, including 1,663 AM peak hour trips and 1,829 PM peak hour trips. These trips would be added gradually over time as each new use is constructed.

Project Traffic Distribution and Assignment

Project trips were distributed utilizing the Series 12 Year 2050 SANDAG Transportation Model, including 2008 base year, 2050 with Road 3 and without Road 3. The overall internal capture rate is 22 percent. Refer to the TIS (see Appendix E) for additional information regarding the internal capture rate.

Multiple sets of trip distributions were developed in conjunction with the varying roadway networks under each of the following scenarios:

- Existing Plus Project (phased project build-out land uses on existing network)
- Existing Plus Cumulative Projects Plus Project (build-out)

The Existing Plus Project is provided below, while the cumulative analysis scenario (Existing Plus Cumulative Projects Plus Project) are provided in subchapter 2.3.3. It is noted that Caltrans freeway facilities are analyzed based on a 2050 horizon year while County roadways are analyzed based on a 2030 horizon year.

The analysis of Existing Plus Project impacts is divided into five scenarios based on the construction of project phases (see Figure 1-4) that when combined represent all project-generated trips associated with build-out of the project added to the existing roadway network. The project is planned to be constructed in a series of phases. This phasing would not require construction of all circulation improvements at once because the increase in trips as a result of the project would be phased along with development. Rather, such improvements would be constructed as needed to mitigate impact of phased development as discussed Traffic Scenarios A through E.

These scenarios are referred to as Traffic Scenarios A through E, representing the following: Traffic Scenario A includes Phase 1 of the Specific Plan; Traffic Scenario B includes Phases 1 and 4; Traffic Scenario C includes Phases 1, 2, and 4; Traffic Scenario D includes Phases 1, 2, 4, and 5; and Traffic Scenario E indicates project build-out. Table 4.3 of the TIS shows the project land use assumptions by traffic analysis phasing which represents the anticipated construction phasing. Should project construction not follow this phasing order, a specified number of equivalency dwelling units (EDU) have been assigned to each Traffic Scenario. An EDU is a unit of measure that standardizes all land use types (housing, retail, office, etc.) to the level of demand created by one single-family housing unit. The project would be conditioned to perform proposed mitigation measures upon the generation of the identified EDU. The issuance of subsequent grading permits would be conditioned on the completion of the proposed mitigation measures from the previous construction phase.

Existing Plus Project (Traffic Scenario A)

The Existing Plus Project (Traffic Scenario A) (Figure 2.3-5a) includes existing traffic volumes with the addition of project traffic generated by the project's construction of Phase 1 (350 single-family units and a neighborhood/County park) of the project. The project includes construction of the roads and intersection improvements listed below. These improvements are included in this existing condition because the project is conditioned to construct the improvements as part of project design, and the improvements are needed to handle the traffic from Scenario A. Intersection and roadway geometrics under Existing Plus Project conditions were assumed to be identical to existing conditions, with the exception of the following project frontage and access improvements:

- West Lilac Road (between Main Street and Road 3) at proposed classification 2.2F modified (frontage improvements) (Note: The project proposes to change the classification of this road from 2.2C to 2.2F. This change would reduce required right-of-way and shoulder width);
- Main Street, between West Lilac Road and Street "C" (proposed road);

- Main Street, between Street “Z” and West Lilac Road (proposed road);
- Street “C” and Street “Z” (proposed road);
- Birdsong Drive, between Street “Z” and West Lilac Road (proposed road);
- Intersection #26, Street “O”/West Lilac Road/Main Street – proposed roundabout;
- Intersection #27, Main Street/Street “C”– proposed roundabout;
- Intersection #30, Street “Z”/Main Street – proposed one-way stop (southbound Street “Z” approach) controlled L-intersection; and
- Intersection #31, Street “Z”/Main Street – proposed roundabout.

Based on the significance criteria, there are no roadway segments, intersections, two-lane highway, or freeway facilities (segments or intersections) that would be significantly impacted by project-related traffic under Existing Plus Project (Traffic Scenario A) conditions.

Existing Plus Project (Traffic Scenario B)

The Existing Plus Project (Traffic Scenario B) (Figure 2.3-5b) includes existing traffic volumes with the addition of traffic generated by the project Phases 1 and 4. The project includes construction of the roads and intersection improvements listed below. These improvements are included in this existing condition because the project is conditioned to construct the improvements as part of project design, and the improvements are needed to handle the traffic from Traffic Scenario B. Intersection and roadway geometrics were assumed to be identical to existing conditions, with the exception of the following roads and driveway intersections associated with project frontage and access:

- West Lilac Road (between Main Street and Road 3) at proposed classification 2.2F modified (frontage improvements) (Note: The project proposes to change the classification of this road from 2.2C to 2.2F. This change would reduce required right-way-way and shoulder width);
- Main Street, between West Lilac Road and Street “C” (proposed road);
- Main Street, between Street “Z” and West Lilac Road (proposed road);
- Street “C” and Street “Z” (proposed road);
- Birdsong Drive, between Street “Z” and West Lilac Road (proposed road);
- Covey Lane, west of West Lilac Road (proposed road);
- Intersection #26, Street “O”/West Lilac Road/Main Street – proposed roundabout;
- Intersection #27, Main Street/Street “C”– proposed roundabout;
- Intersection #30, Street “Z”/Main Street – proposed one-way stop (southbound Street “Z” approach) controlled L-intersection; and
- Intersection #31, Street “Z”/Main Street – proposed roundabout.

Roadway Segments

Based on the significance criteria, there are no roadway segments that would be significantly impacted by project-related traffic under Existing Plus Project (Traffic Scenario B) condition.

Intersections

Based upon the significance criteria, the additional traffic generated by Traffic Scenario B would have a **significant direct impact** at the following intersections upon the1st EDU of the project's construction of Phase 4 (if the project follows the proposed Phasing Plan) or alternatively, the 363rd total EDU:

- I-15 SB Ramps/Gopher Canyon Road intersection (**Impact TR-1**); and
- I-15 NB Ramps/Gopher Canyon Road intersection (**Impact TR-2**).

Two-Lane Highway

As discussed in the TIS, all segments along Old Highway 395 would continue to operate at acceptable LOS D or better under Existing Plus Project (Traffic Scenario B) conditions.

Freeway Segments

The freeway segment level of service analysis was performed utilizing the methodology presented above. As discussed in the TIS, all of the study area freeway segments along I-15 would continue to operate at LOS D or better under Existing Plus Project (Traffic Scenario B) condition.

Existing Plus Project (Traffic Scenario C)

The Existing Plus Project (Traffic Scenario C) (Figure 2.3-5c) includes existing traffic volumes with the addition of traffic generated by from project Phases 1, 2 and 4. The project includes construction of the roads and intersection improvements listed below. These improvements are included because the project is conditioned to construct the improvements as part of project design, and the improvements are needed to handle the traffic from Scenario C. Intersection and roadway geometrics were assumed to be identical to existing conditions, with the exception of the following roads and driveway intersections associated with project frontage and access:

- West Lilac Road (between Main Street and Road 3) at proposed classification 2.2F modified (frontage improvements) (Note: This project proposes to change the classification of this road from 2.2C to 2.2F. This change would reduce required ROW and shoulder width);
- Main Street, between West Lilac Road and Street "C" (proposed road);
- Main Street, between Street "C" and Street "Z" (proposed road);
- Main Street, between Street "Z" and West Lilac Road (proposed road);
- Street "C" and Street "Z" (proposed road);
- Birdsong Drive, between Street "Z" and West Lilac Road (proposed road);

- Covey Lane, west of West Lilac Road (proposed road);
- Intersection #26, Street "O"/West Lilac Road/Main Street – proposed roundabout;
- Intersection #27, Main Street/Street "C"– proposed roundabout;
- Intersection #28, Lilac Hills Ranch Road/Main Street North – proposed all-way stop controlled intersection;
- Intersection #29, Lilac Hills Ranch Road/Main Street South – proposed all-way stop controlled intersection;
- Intersection #30, Street "Z"/Main Street – proposed one-way stop (southbound Street "Z" approach) controlled T-intersection; and
- Intersection #31, Street "Z"/Main Street – proposed roundabout.

In addition to the project access and frontage roads assumed above, construction of improvements resulting from implementation of mitigation measures M-TR-1 and M-TR-2 (detailed in subchapter 2.3.5, below) were included in this scenario because they would be constructed in an earlier phase. These improvements include:

- (M-TR-1) I-15 SB Ramps/Gopher Canyon Road intersection – signalized; and
- (M-TR-2) I-15 NB Ramps/Gopher Canyon Road intersection – signalized.

Roadway Segments

Based upon the significance criteria, the additional traffic generated by Traffic Scenario C would have a **significant direct impact** at the following roadway segments upon 929th EDU (or project daily trips of 9,298):

- West Lilac Road, between Old Highway 395 and Main Street - LOS F (**Impact TR-3**);
- Gopher Canyon Road, between E. Vista Way and I-15 SB – LOS E (**Impact TR-4**); and
- E. Vista Way, between Gopher Canyon Road and Osborne Street – LOS F (**Impact TR-5**).

Intersections

Based upon the significance criteria, the additional traffic generated by Traffic Scenario C would have a **significant direct impact** at the following intersection upon 585th EDU (or project daily trips of 9,298):

- Old Highway 395/West Lilac Road (County) – LOS F during both the AM and PM peak hours (**Impact TR-6**).

Two-Lane Highway

As discussed in the TIS, all segments along Old Highway 395 would continue to operate at acceptable LOS D or better under Existing Plus Project (Traffic Scenario C) conditions.

Freeway Segments

The freeway segment level of service analysis was performed utilizing the methodology presented above. As discussed in the TIS, all of the study area freeway segments along I-15 would continue to operate at LOS D or better under Existing Plus Project (Traffic Scenario C) condition.

Existing Plus Project (Traffic Scenario D)

The Existing Plus Project (Traffic Scenario D) (Figure 2.3-5d) includes existing traffic volumes with the addition of traffic generated by project Phases 1, 2, 4, and 5. Intersection and roadway geometrics were assumed to be identical to existing conditions, with the exception of the following roads and driveway intersections associated with project frontage and access:

- West Lilac Road (between Main Street and Road 3) at proposed classification 2.2F modified (frontage improvements) (Note: This project proposes to change the classification of this road from 2.2C to 2.2F. This change would reduce required right-of-way and shoulder width);
- Main Street, between West Lilac Road and Street "C" (proposed road);
- Main Street, between Street "C" and Street "Z" (proposed road);
- Main Street, between Street "Z" and West Lilac Road (proposed road);
- Street "C" and Street "Z" (proposed road);
- Birdsong Drive, between Street "Z" and West Lilac Road (proposed road);
- Covey Lane, west of West Lilac Road (proposed road);
- Lilac Hills Ranch Road, between Covey Lane and Mountain Ridge Road (proposed road);
- Intersection #26, Street "O"/West Lilac Road/Main Street – proposed roundabout;
- Intersection #27, Main Street/Street "C"– proposed roundabout;
- Intersection #28, Lilac Hills Ranch Road/Main Street North – proposed all-way stop controlled intersection;
- Intersection #29, Lilac Hills Ranch Road/Main Street South – proposed all-way stop controlled intersection;
- Intersection #30, Street "Z"/Main Street – proposed one-way stop (southbound Street "Z" approach) controlled T-intersection; and
- Intersection #31, Street "Z"/Main Street – proposed roundabout.

In addition to the project improvements listed above, improvements constructed as a result of mitigation measures M-TR-1 through M-TR-4 from Scenarios B and C (detailed in subchapter 2.3.5, below) were also included in this scenario because they would be constructed in an earlier phase. These improvements include:

- (M-TR-1) I-15 SB Ramps/Gopher Canyon Road intersection – signalized; and
- (M-TR-2) I-15 NB Ramps/Gopher Canyon Road intersection – signalized.
- (M-TR-3) West Lilac Road, between Old Highway 395 and Main Street – improvements to the General Plan Mobility Element classification of 2.2C; and
- (M-TR-4) Old Highway 395/West Lilac Road intersection – signalized.

Roadway Segments

Based upon the significance criteria, the additional traffic generated by Traffic Scenario D would not result in any new direct impact to study roadway segments.

Intersections

Based upon the significance criteria, the additional traffic generated by Traffic Scenario D would have a **significant direct impact** at the following intersection upon development of the 121st EDU (or by generation of 121 peak hour trips. PM peak hour intersection operations dictate the need for signalization); or 1,132 total EDU:

- Old Highway 395/Circle R Drive (County) – LOS E during the AM peak hour/LOS F during the PM peak hour, and the Phase D project traffic would add more than 5 peak hour trips to the critical movement of this unsignalized intersection (**Impact TR-7**).

Two-Lane Highway

As discussed in the TIS, all segments along Old Highway 395 would continue to operate at acceptable LOS D or better under Existing Plus Project (Traffic Scenario D) conditions.

Freeway Segments

The freeway segment level of service analysis was performed utilizing the methodology presented above. As discussed in the TIS, all of the study area freeway segments along I-15 would continue to operate at LOS D or better under Existing Plus Project (Traffic Scenario D) condition.

Existing Plus Project (Traffic Scenario E, Build-out)

The Existing Plus Project (Traffic Scenario E, Build-out), shown in (Figure 2.3-5e), existing traffic volumes with the addition of traffic generated by Traffic Scenario A plus B plus C plus D. The project includes construction of the roads and intersection improvements listed below. These improvements are included in this existing condition because the project is conditioned to construct the improvements as part of project design, and the improvements are needed to handle the traffic from Traffic Scenario E, Build-out. Intersection and roadway geometrics were assumed to be identical to existing

conditions, with the exception of the following roads and driveway intersections associated with project frontage and access:

- West Lilac Road (between Main Street and Road 3) at proposed classification 2.2F modified (frontage improvements) (Note: This project proposes to change the classification of this road from 2.2C to 2.2F. This change would reduce required right-of-way and shoulder width);
- Main Street, between West Lilac Road and Street "C" (proposed road);
- Main Street, between Street "C" and Street "Z" (proposed road);
- Main Street, between Street "Z" and West Lilac Road (proposed road);
- Street "C" and Street "Z" (proposed road);
- Birdsong Drive, between Street "Z" and West Lilac Road (proposed road);
- Covey Lane, west of West Lilac Road (proposed road);
- Lilac Hills Ranch Road, north of Covey Lane (proposed road);
- Lilac Hills Ranch Road, between Covey Lane and Mountain Ridge Road (proposed road);
- Street "F", between West Lilac Road and Lilac Hills Ranch Road (proposed road);
- Intersection #26, Street "O"/West Lilac Road/Main Street – proposed roundabout;
- Intersection #27, Main Street/Street "C"– proposed roundabout;
- Intersection #28, Lilac Hills Ranch Road/Main Street North – proposed all-way stop controlled intersection;
- Intersection #29, Lilac Hills Ranch Road/Main Street South – proposed all-way stop controlled intersection;
- Intersection #30, Street "Z"/Main Street – proposed one-way stop (southbound Street "Z" approach) controlled T-intersection; and
- Intersection #31, Street "Z"/Main Street – proposed roundabout.

In addition to the project access and frontage road improvements listed above, construction of improvements resulting from the implementation of mitigation measures M-TR-1 through M-TR-4 (detailed in subchapter 2.3.5.1, below) were included in this scenario because they would be constructed in an earlier phase. These improvements include:

- (M-TR-1) I-15 SB Ramps/Gopher Canyon Road intersection – signalized;
- M-TR-2) I-15 NB Ramps/Gopher Canyon Road intersection – signalized;
- (M-TR-3) West Lilac Road, between Old Highway 395 and Main Street – improvements to the General Plan Mobility Element classification of 2.2C;
- (M-TR-4) Old Highway 395/West Lilac Road intersection – signalized; and
- (M-TR-5) Old Highway 395/Circle R Drive – signalized.

Figure 2.3-6 shows the projected ADT for the Existing Plus Project (Traffic Scenario E, Build-out) roadway conditions.

Roadway Segments

Table 2.3-10 displays the level of service analysis results for key roadway segments under Existing plus Project (Traffic Scenario E, Build-out)) conditions. As shown, the following three roadway segments would operate at substandard LOS E or F:

- Gopher Canyon Road, between E. Vista Way and I-15 SB Ramps – LOS E;
- E. Vista Way, between SR-76 and Gopher Canyon Road – LOS E (**Impact TR 8**); and
- E. Vista Way, between Gopher Canyon Road and Osborne Street – LOS F.

Gopher Canyon Road, between E. Vista Way and I-15 SB Ramps and E. Vista Way, between Gopher Canyon Road and Osborne Street were identified as significant under previous scenarios. Mitigation Measures M-TR-1 through M-TR-5 (detailed in subchapter 2.3.5.1, below) would already be constructed in earlier phases. Therefore, the additional traffic generated by Existing Plus Project (Traffic Scenario E, Build-out) conditions would result in only one new **significant direct impact** to the road segment of:

- E. Vista Way, between SR-76 and Gopher Canyon Road.

Intersections

Peak hour traffic volumes at the key study area intersections are displayed in Figure 2.3-7a-c. As shown in Table 2.3-11, the following two intersections are expected to continue to operate at substandard LOS E or F under the Existing Plus Project (Traffic Scenario E, Build-out) conditions:

- SR-76/Old River Road/E. Vista Way (Caltrans) - LOS E during the AM peak hour;
- SR-76/Olive Hill Road/Camino Del Rey (Caltrans) - LOS E.

Based upon the significance criteria discussed above, the additional traffic generated by Existing Plus Project (Traffic Scenario E, Build-out) would **not have any direct impact** at the study area intersections because at each intersection project traffic would not add two seconds or more of additional delay. Based on the County's Guidelines for Determining Significance, an increase in delay of two seconds or more would be considered a significant impact.

Two-Lane Highways

Table 2.3-12 displays two-lane highway level of service analysis results for Old Highway 395 under Existing Plus Project (Scenario E, Build-out) conditions. As shown in the table, all segments along Old Highway 395 would continue to operate at acceptable LOS D or better under Existing Plus Project (Traffic Scenario E, Build-out) conditions.

Freeway Segments

Table 2.3-13 displays the resulting level of service for I-15 under Existing Plus Project (Traffic Scenario E, Build out) conditions. As shown in the table, all of the study area freeway segments along I-15 would continue to operate at LOS D or better under Existing Plus Project (Traffic Scenario E, Build-out) conditions.

Existing Road Conditions Plus Project (Build-out)

The Existing Road Conditions Plus Project (Build-out) scenario includes the project's build-out traffic volumes added to the existing traffic volumes and existing roadway configurations. This scenario represents the condition where the project would be built all at once as a single phase without the benefit of mitigation measures and road improvements associated with each construction phase.

Roadway Segments

The existing roadway conditions under the Existing Road Conditions Plus Project (Build-out) scenario is detailed in subchapter 2.3.1.2, above. Under this scenario the following roadway segments and intersections are calculated to operate at a LOS D or worse:

- Gopher Canyon Road between E. Vista Way and I-15 SB Ramps (LOS E);
- E. Vista Way between SR-76 and Gopher Canyon Road (LOS E); and
- E. Vista Way between Gopher Canyon Road and Osborne Street (LOS F).

Mitigation measures as detailed in subchapter 2.3.5.1, below would be implemented. The application of these mitigation measures would reduce significant impacts to all but two roadways segments:

- Gopher Canyon Road between E. Vista Way and I-15 SB; and
- E. Vista Way between Gopher Canyon Road and Osborne Street.

Based on the County standard LOS threshold, these two road segments would operate at unacceptable levels.

Intersections

- SR-76/Old River Road/E. Vista Way (Caltrans) (LOS E - AM peak hour);
- SR-76/Olive Hill Road/Camino Del Rey (Caltrans) (LOS E - PM peak hour);
- I-15 Southbound Ramps/Gopher Canyon Road (Caltrans) (LOS F - AM and PM peak hours); and
- I-15 Northbound Ramps/Gopher Canyon Road (Caltrans) (LOS F - PM peak hour).

Mitigation measures as detailed in subchapter 2.3.5.1, below would be implemented. The application of these mitigation measures would mitigate significant impacts to all intersections to less than significant.

2.3.2.3 Issue 2: Transportation Hazard

Guidelines for the Determination of Significance

According to the County of San Diego Guidelines for Determining Significance – Transportation and Traffic (San Diego County 2011b), a significant transportation or traffic impact may occur if the project causes a transportation hazard.

According to County procedures, the determination of significant hazards to an existing transportation design feature shall be on a case-by-case basis, considering the following factors:

- Design features/physical configurations of access roads may adversely affect the safe movement of all users along the roadway.
- The percentage or magnitude of increased traffic on the road due to the project may affect the safety of the roadway.
- The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers, may result in conflicts with other users or stationary objects.
- Conformance of existing and proposed roads to the requirements of the private or public road standards, as applicable.

According to County procedures, the determination of significant hazards to pedestrians or bicyclists shall be on a case-by-case basis, considering the following factors:

- Design features/physical configurations on a road segment or at an intersection that may adversely affect the visibility of pedestrians or bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.
- The amount of pedestrian activity at the project access points that may adversely affect pedestrian safety.
- The preclusion or substantial hindrance of the provision of a planned bike lane or pedestrian facility on a roadway adjacent to the project site.
- The percentage or magnitude of increased traffic on the road due to the proposed project that may adversely affect pedestrian and bicycle safety.
- The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers that may result in vehicle/pedestrian, vehicle/bicycle conflicts.
- Conformance of existing and proposed roads to the requirements of the private or public road standards, as applicable.
- The potential for a substantial increase in pedestrian or bicycle activity without the presence of adequate facilities.

Analysis

A system of private roads, including Main Street, Lilac Hills Ranch Road, Street "F," Mountain Ridge Road, and Covey Lane, is proposed to provide site access and on- and off-site circulation for the project. Main Street, Lilac Hills Ranch Road, and Covey Lane would provide the general public access to the adjoining Public Road system. The internal private streets, maintained by the HOA, would be open to the public visiting residents or local businesses, making deliveries, and participating in community activities such as farmers markets. Main Street would serve as the primary access carrying project traffic ranging from 1,040 ADT to 8,430. Approximately 1,110 ADTs would utilize Covey Lane given that only a small number of the project trips are anticipated to travel east of the project site per SANDAG's Select Zone Assignments. Approximately 2,220 ADTs would use Mountain Ridge Road, as this road would be gated and would provide ingress and egress only for those residents within the southernmost portion of the project. Therefore, residents in the northern portions of the project would not be able to travel south onto Mountain Ridge Road through this gate. The southern third of the project would be a senior community with a gate between the main project and the senior community (at Covey Lane), as well as a gate at Lilac Hills Ranch Road/Mountain Ridge Road just north of the proposed institutional site. Access to the institutional site would be divided into two parking areas, one north of the Mountain Ridge Road gate and one to the south. This would allow all residents of the project access through the project gates after coordinating with the HOA and church personnel. These residents would park north of the Mountain Ridge access point and would not be allowed to exit in that direction. Visitors to the institutional site from outside the project could likewise access the site from Mountain Ridge, to the parking area south of the gated access.

Proposed public roadway improvements would comply with the County's Public Road Standards (County of San Diego 2012a) except where modifications or exceptions have been requested. For example, the segment of West Lilac Road along the project frontage does not meet public road standards. Approximately ten modifications to current road standards are being proposed as part of the project. Six of the requested modifications would affect West Lilac Road and would avoid significant grading of steep slopes and disruption of existing driveways. Project traffic would still be accommodated through widening and restriping the road, as well as the signalization of the intersection of West Lilac Road and Old Highway 395.

Two of the requested modifications would allow Mountain Ridge Road to remain in its current state, with the exception of minor widening to ensure that there would be two 12-foot lanes consistent with County Private Road Standards, and would avoid significant grading and disruption to existing driveways. The remaining two modifications would reduce the design speed (from 30 mph to 20 mph) of two short segments of two on-site roads within the project in residential areas, again reducing the amount of grading that must be done. These two road segments are very short, making it unlikely that a 30 mph speed would ever be attained.

These County Public Road Standards are intended to "provide for the service and protection of the public." Proposed roadway improvements would also follow the County DPW Design Standards (County of San Diego 2009a), as applicable. Several roundabouts are proposed along the new West Lilac Road. Roundabouts would calm traffic, thereby enhancing the comfort and safety of both cyclists and pedestrians.

Proposed roundabouts would be designed to meet applicable safety and design standards. Thus, proposed roadway improvements would be safe for vehicles, bicyclists, and/or pedestrians.

There are two existing east-west public trail segments at the project site; one along the northern boundary of the project site (Old West Lilac Road) and the other travels through the southern portion of the project, along the VCMWD easement. The project proposes developing a system of multi-purpose trails that traverse the project site, linking the northern and southern public trails. This trail network would provide connectivity to parks, private recreation, schools, and commercial areas within the project site. The multi-purpose trail network is proposed as a combination of smaller feeder and natural trails in the open space area of the project site, and a community pathway that traverses the project site providing connectivity to the existing County Regional Trail System. All trails would be designed to County standards to ensure the safety of pedestrians and bicyclists.

The project is consistent with the County Mobility Element Goal 4, Safe and Compatible Roads. Please also refer to EIR subchapter 2.9.2.4 for the analysis of emergency evacuation. Relevant policies pursuant to Goal M-4 and the project's consistency with each are listed below:

- Policy M-4.1 (Walkable Village Roads), the project would provide a walkable Town Center and two Neighborhood Centers that would encourage multi-modal transportation to enhance pedestrian usability and safety. The Specific Plan establishes a rural village that would be compact and configured to encourage residents to walk to major public areas. Single-family attached and mixed-use housing would be located adjacent to a central commercial area and a County park, encouraging residents to walk to these public areas.

- Policy M-4.2 (Interconnected Local Roads) requires the provision of an interconnected and appropriately scaled local public road network. The project would provide four connecting points to existing roads, ensuring that both local and surrounding residents have alternate routes. The internal road system within the project site would consist of private roads, interconnected and appropriately scaled, allowing all internal roads to be two lanes, reinforcing a village atmosphere. As shown in Figure 2.7-1, gates would be placed throughout Phases 4 and 5, for use by residents and/or emergency apparatus. The gates would be used by residents to go in and out of the project and would have automatic openers (for exiting) that are triggered by either a buried sensor or an optical sensor. During an emergency requiring evacuation of residents, the gates would open allowing surrounding residents to use Lilac Hills Ranch roads. The HOA would open the gates in an emergency using a special code that can be entered remotely. Even with this gated system, the roads would still be interconnected because they allow traffic from off-site to enter the project, and also provide emergency evacuation routes.

- Policy M-4.4 (Accommodate Emergency Vehicles) requires the design and construction of public and private roads to allow for necessary access by appropriately sized fire apparatus and emergency vehicles while accommodating outgoing vehicles with residents evacuating from the project. Roads within the project site are designed to accommodate emergency vehicles and also allow residents to evacuate efficiently if necessary. Although the project includes gated

access points throughout Phases 4 and 5 (Figure 2.7-1), the road system would be interconnected and would provide at least two ways in and out for all residents as required by current safety regulations.

- Policy M-4.5 (Context Sensitive Road Design) requires the design and construction of roads that are compatible with the local terrain and the uses, scale and pattern of the surrounding development. While the grading needed for the project would be similar to other local developments of its scale, earthwork would be minimized by focusing density in locations where slope is minimal. The road pattern within the project site would follow the site's terrain while still providing a safe and efficient road network.

Overall, the road network design for the project would provide adequate ingress and egress for residents as well as emergency access, safe trail system, and conform to Goal M-4 of the General Plan Mobility Element. Therefore, impacts associated with transportation hazards would be **less than significant**.

2.3.2.4 Issue 3: Public Transit, Bicycle, and Pedestrian Facilities

Guidelines for the Determination of Significance

The Public Transit section of the County's Mobility Element identifies a number of guiding principles in support of a multi-modal transportation network. The principles are intended to enhance connectivity and support existing development patterns while retaining community character and maintaining environmental sustainability through reductions in gasoline consumption and greenhouse gas emissions. Specific goals and policies seek to maximize transit service opportunities and reduce travel demand. Goal M-8 (Public Transit System) supports a public transit system that reduces automobile dependence and serves all segments of the population and Goal M-9 (Effective Use of Existing Transportation Network) seeks to maximize use of alternative modes of travel and thus reduce the need to widen or build roads. These goals can be accomplished through reservation of adequate rights-of-way to accommodate existing and planned transit facilities, including bus stops, and by providing transit amenities, and park and ride facilities. The project's consistency with these policies is discussed below.

The County also established several Implementation measures as a means for the County to meet the goals and policies. As such, if a proposed project is not in conformance with the applicable alternative transportation policies in the Mobility Element, a significant conflict with the County's alternative transportation policies may occur.

Analysis

The project includes an opportunity for public transit by providing for bus stops within the Town Center, bicycle and pedestrian features, as described in subchapter 1.2.1 under Circulation. While mass transit service to the project site has not been established yet, it has been planned and would be available to provide mass transit. The project has been designed to be a pedestrian-friendly community and includes a sidewalk network and trails to provide pedestrian connections between uses and existing recreational trails. The proposed trails along Old West Lilac Road and the VCMWD easement would be consistent with the County's CTMP and Valley Center Community Plan Design

Guidelines. The CTMP trails along the northern and southern edges of the project would allow horseback riding. The project would include two bike lanes on the proposed West Lilac Road segment through the Town Center.

The project is consistent with the County Mobility Element Goal 8, Public Transit System. Relevant policies pursuant to Goal M-8 and the project's consistency with each are listed below.

- Policy M-8.3 (Transit Stops That Facilitate Ridership) requires coordination with SANDAG, North County Transit District (NCTD), and San Diego Metropolitan Transit System (MTS) to locate transit stops and facilities in areas that facilitate transit ridership, and designate such locations as part of planning efforts for Town Centers ensuring that the planning of Town Centers and village cores incorporate uses that support the use of transit. The project proposes a Town Center with commercial/mixed-use and attached residential uses. An area for a transit stop would be provided should NCTD determine that such is necessary.

- Policy M-8.4 (Transit Amenities) requires transit stops that are accessible to pedestrians and bicyclists; and provide amenities for these users' convenience. While there is no public transit service available at the present time, a transit stop is an allowed use in the Town Center where it will be accessible to the most residents.

- Policy M-9.4 (Park-and-Ride Facilities) requires developers of large projects to provide, or to contribute to, park-and-ride facilities near freeway interchanges and other appropriate locations that provide convenient access to congested regional arterials. Park-and-ride facilities are available a short distance from the project site at the intersection of Old Highway 395 and Gopher Canyon Road.

The Bicycle, Pedestrian, and Trail Facilities section of the Mobility Element identifies goals and policies to improve the bicycle and pedestrian network and facilities. Goal M-11 addresses bicycle and pedestrian facilities with a focus on safety, efficiency, and providing attractive mobility options as well as recreational opportunities for County residents. Relevant policies pursuant to Goal M-11 are listed below.

- Policy M-11.2 (Bicycle and Pedestrian Facilities in Development) requires development and Town Center plans in villages to incorporate site design and on-site amenities for alternate modes of transportation, such as comprehensive bicycle and pedestrian networks and facilities. The project would provide an extensive system of multi-modal trails providing multiple opportunities for residents to walk and bike throughout the project site. These include bikeways along main project streets, and the Town Center as described in the Specific Plan and shown on the Parks and Trails Plan (see Figures 1-8 and 1-9).

- Policy M-11.3 (Bicycle Facilities on Roads Designated in the Mobility Element) requires maximization of bicycle facilities on County Mobility element roads in Semi-Rural and Rural Lands to provide a safe and continuous bicycle network in rural areas that a be used for recreation or transportation purposes, while retaining rural character. The project proposes to dedicate and install the designated MTMP segment along the entire length of the south side of West Lilac Road. This public trail would be built as a Type D pathway.

- Policy M-11.4 (Pedestrian and Bicycle Network Connectivity) requires development in Villages and Rural Villages to provide comprehensive internal pedestrian and bicycle networks that connect to existing or planned adjacent community and countywide networks. A comprehensive network of public hard and soft surface trails is proposed throughout the project site. These trails vary in width depending upon their location near homes or within open space. There are two CTMP trails that cross the property. The project would dedicate and install the designated Community Trails segment along the entire length of the south side of West Lilac Road and along the southern part of the project.

- Policy M-11.8 (Coordination with the County Trails Program) requires coordination of proposed bicycle and pedestrian networks and facilities with the CTMP's proposed trails and pathways. As noted above, the project includes the construction of the two CTMP trails crossing the project site. Additional trails within the project site would connect to the CTMP trails. All trails except those located within Phases 4 and 5 would be available to the public.

The project would provide alternative transportation opportunities and would be consistent with County Mobility Element Goals 8 and 11 and associated policies as detailed above. Impacts associated with transit, bicycle and pedestrian facilities would be **less than significant**.

2.3.3 Cumulative Impact Analysis

2.3.3.1 Existing Plus Cumulative Projects Plus Project

The cumulative impact analysis was completed using SANDAG's Series 12 Year 2020 Transportation Model and cumulative projects within a seven-mile radius of the project (see Table 1-6 and Figure 1-23). The cumulative impact analysis area is based on the County's Guidelines for Significance. A list of 169 cumulative projects was compiled, including:

- #1 - #96: The cumulative project list utilized for the recent Meadowood development project;
- #97 - #109: Geographically applicable projects from the County GPA Property Specific Workplan list of 56 projects, dated June 28, 2012; and
- #110 - #169: A list of discretionary projects obtained from SanGIS (August 2011) and refined to include projects with potentially relevant trip generation, such as Major Use Permits, General Plan Amendments, Specific Plans and Amendments, Tentative Maps, and Tentative Parcel Maps. Both County staff input and the KivaNet system were utilized to gather detailed project land use descriptions.

It is noted that, other than Pankey Road and improvements included as a part of the project, the analysis below did not assume any traffic mitigation and/or transportation system improvements by any of the anticipated cumulative land development projects. However, significant roadway improvements would in fact be forthcoming to satisfy CEQA requirements. Where appropriate, the cumulative analysis assumes the completion of all phased mitigation measures required to address significant direct

impacts under the Traffic Scenario (see M-TR-1 through M-TR-5, in subchapter 2.3.5.1, below).

Intersection and roadway geometrics under Existing Plus Cumulative Projects Plus Project conditions were assumed to be largely identical to Existing conditions, with the following two exceptions:

- SR-76 is widened to 4 lanes – currently under construction; and
- Pankey Road, north of SR-76 would be constructed as a 2-lane roadway through construction associated with cumulative projects, and the need to provide direct access to those projects. Both the Meadowood and Campus Park projects have been approved and are required to construct this road. The Campus Park project is in the process of obtaining grading permits.

Roadway Segments

Figure 2.3-8 shows the roadway segment ADT in the cumulative condition. With the addition of the project and the cumulative projects to the existing conditions, the following eight roadway segments would operate at substandard LOS E or F (Table 2.3-14):

- West Lilac Road between Old Highway 395 and Main Street – LOS F, and the cumulative projects plus the proposed project would add more than 100 daily trips.
- Camino Del Rey between Old River Road and West Lilac Road - LOS E, and the cumulative projects plus the proposed project would add more than 200 daily trips (**Impact TR-9**).
- Gopher Canyon Road between E. Vista Way and I-15 SB Ramps – LOS F, and the cumulative projects plus the proposed project would add more than 100 daily trips (**Impact TR-10**).
- E. Vista Way between SR-76 and Gopher Canyon Road – LOS F, and the cumulative projects plus the proposed project would add more than 100 daily trips (**Impact TR-11**).
- E. Vista Way between Gopher Canyon Road and Osborne Street – LOS F, and the cumulative projects plus the proposed project would add more than 100 daily trips Impact (**Impact TR-12**).
- Pankey Road between Pala Mesa Drive and SR-76 - LOS F, and the cumulative projects would add more than 100 daily trips (**Impact TR-13**).
- Lilac Road between Old Castle Road and Anthony Road - LOS E, and the cumulative projects plus the proposed project would add more than 200 daily trips (**Impact TR-14**).
- Cole Grade Road, between Fruitvale Road and Valley Center Road - LOS E, and the cumulative projects plus the proposed project would add more than 200 daily trips (**Impact TR-15**).

Based upon the significance criteria, the additional traffic generated by the proposed project and the anticipated cumulative projects would result in **significant cumulative impacts** to seven of the eight roadway segments. A cumulative impact would result to the West Lilac Road segment, between Old Highway 395 and Main Street; however, construction of improvements identified as M-TR-3 would be implemented in Traffic Scenario C due to a direct impact (**Impact TR-3**), which would reduce the impact along this segment to less than significant.

Intersections

As identified in the TIS (see Appendix E), the following 14 study intersections would operate at substandard LOS E or F under the cumulative plus project conditions (Table 2.3-15):

- E. Vista Way/Gopher Canyon Road (County) (LOS F – PM peak hour), and the cumulative projects plus project traffic would add more than 1 second of additional delay to this signalized intersection (**Impact TR-16**).
- SR-76/Old River Road/E. Vista Way (Caltrans) (LOS F - AM and PM peak hours), and the cumulative project plus project traffic would add two seconds or more of additional delay to this signalized intersection (**Impact TR-17**).
- SR-76/Olive Hill Road/Camino Del Rey (Caltrans) (LOS F – AM and PM peak hour), and the cumulative projects plus project traffic would add two seconds or more of additional delay to this signalized intersection (**Impact TR-18**).
- Old River Road/Camino Del Rey (County) – (LOS F - AM peak hour), and the cumulative projects plus project traffic would not add more than 5 peak hour trips to the critical movement of this unsignalized intersection.
- SR-76/Old Highway 395 (Caltrans) (LOS F - AM and PM peak hours), and the cumulative projects plus project traffic would add two seconds or more of additional delay to this signalized intersection (**Impact TR-19**).
- SR-76/Pankey Road (Caltrans) (LOS F - AM and PM peak hours), and the cumulative projects plus project traffic would add two seconds or more additional delay to this unsignalized intersection (**Impact TR-20**).
- Old Highway 395/E. Dulin Road (County) (LOS F - AM and PM peak hours), and the cumulative projects plus project traffic would add more than 5 peak hour trips to the critical movement of this unsignalized intersection (**Impact TR-21**).
- Old Highway 395/West Lilac Road (County) (LOS F - AM and PM peak hours), and the cumulative projects plus project traffic would add more than 5 peak hour trips to the critical movement of this unsignalized intersection (**Impact TR-22**).
- I-15 SB Ramps/Old Highway 395 (Caltrans) – LOS E during the AM peak hour and LOS F during the PM peak hour, and the cumulative projects plus project traffic would add two seconds or more additional delay to this unsignalized intersection (**Impact TR-23**).
- I-15 SB Ramps/Old Highway 395 (Caltrans) – LOS F during the PM peak hour, and the cumulative projects plus project traffic would add two seconds or more additional delay to this unsignalized intersection (**Impact TR-24**).

- Old Highway 395/Circle R Drive (County) (LOS F - AM and PM peak hours), and the cumulative projects plus project traffic would add more than 5 peak hour trips to the critical movement of this unsignalized intersection (**Impact TR-25**).
- I-15 SB Ramps/Gopher Canyon Road (Caltrans) (LOS F - AM and PM peak hours), and the cumulative projects plus project traffic would add more than two seconds of additional delay to this unsignalized intersection (**Impact TR-26**).
- I-15 NB Ramps/Gopher Canyon Road (Caltrans) (LOS F - AM and PM peak hour), and the cumulative projects plus project traffic would add more than two seconds of additional delay to this unsignalized intersection (**Impact TR-27**).
- Miller Road/Valley Center Road (County) (LOS F - PM peak hour), and the cumulative projects plus project would add more than 5 peak hour trips to the critical movement of this unsignalized intersection (**Impact TR-28**).

The project and cumulative projects would add fewer than five peak hour trips to the critical movement of the Old River Road/Camino Del Rey intersection and, therefore, under the significance criteria no significant cumulative impact would occur at this intersection. Based on the significance guidelines, the project would contribute to a **significant cumulative impact** at the other 13 intersections listed above.

Two-Lane Highways

Table 2.3-16 displays two-lane highway level of service analysis results for Old Highway 395 under the cumulative plus project conditions. As shown in the table, all segments along Old Highway 395 would operate at acceptable LOS D or better under this condition, and the additional traffic generated by the project and the other anticipated cumulative projects would not result in cumulative impacts to Old Highway 395.

Freeway Segments

As shown in Table 2.3-17, eight segments of the I-15 freeway would operate at substandard LOS E or F under Existing Plus Cumulative Projects Plus Project Conditions:

- Between Riverside County Boundary and Old Highway 395 (LOS F) (**Impact TR-29**);
- Between Old Highway 395 and SR-76 (LOS F) (**Impact TR-30**);
- Between SR-76 and Old Highway 395 (LOS F) (**Impact TR-31**);
- Between Old Highway 395 and Gopher Canyon Road (LOS F) (**Impact TR-32**);
- Between Gopher Canyon Road and Deer Springs Road (LOS F) (**Impact TR-33**);
- Between Deer Springs Road and Centre City Parkway (LOS F) (**Impact TR-34**);
- Between Centre City Parkway and El Norte Parkway (LOS F) (**Impact TR-35**); and
- Between El Norte Parkway and SR-78 (LOS F) (**Impact TR-36**)

All eight of the I-15 segments listed above would experience a V/C increase of over 0.01 as a result of the addition of the proposed project and cumulative projects. Thus, the

project would contribute to a **significant cumulative impact** at all eight of the freeway segments.

2.3.3.2 General Plan Land Use Element/ Mobility Element Correlation

This subchapter discusses the correlation between the General Plan Land Use Element and Mobility Element at build-out of the Land Use Element as amended by the proposed project. It also provides a General Plan conformance discussion including consistency with Mobility Element Policy 2.1, which addresses balancing adequate road capacity to reasonably accommodate build-out of the Land Use Element, with the need to support other General Plan goals such as providing environmental protections. Policy 2.1 acknowledges that the preservation of valuable resources may outweigh the benefits of road improvements. Therefore, a lower LOS along specified roadways may be acceptable. Table M-4 of the Mobility Element identifies the deficient roadways and describes the rationale for accepting deficient roadway segments.

Mobility Element Policy 2.1 requires development projects to provide associated road improvements necessary to achieve a level of service of "D" or higher on all Mobility Element roads except for those where a failing level of service has been accepted by the County pursuant to the specified criteria. The applicable situations for accepting a road classification where a LOS E or F is forecast includes those instances when the adverse impacts of adding travel lanes do not justify the resulting benefit of increased traffic capacity. This would include the following relevant situations:

- When marginal deficiencies are characterized along a short segment of a road and classifying the road with a designation that would add travel lanes for the entire road would be excessive; or
- When adding travel lanes to a road that would adversely impact environmental and cultural resources or in areas with steep slopes where widening roads would require massive grading, which would result in adverse environmental impacts and other degradation of the physical environment.

SANDAG recently acquired the 902-acre Rancho Lilac property through its EMP and recorded of a conservation easement over the entire property. It is anticipated that this acquisition would likely prevent implementation of the County's planned Road 3 in its current alignment. Therefore, this discussion identifies two scenarios, one without the construction of Road 3 and one with the construction of Road 3.

Build-out Under the General Plan Without Road 3

As shown in Table 2.3-18, all of the study area roadway segments are projected to operate at LOS D or better under Build-out under the General Plan (without Road 3) without the project with the exception of the four following roadway segments:

- Old Highway 395, between SR-76 and E. Dulin Road – LOS E, and the County General Plan Update has accepted LOS E/F operations along this segment;
- Lilac Road between New Road 19 (east of Betsworth Road and Valley Center Road - LOS F, and the County General Plan Update has accepted LOS E/F operations along this segment;

- Valley Center Road, between Lilac Road and Miller Road – LOS E; and
- Valley Center Road between Miller Road and Indian Creek Road - LOS F, and the County General Plan Update has accepted LOS E/F operations along this segment.

With the addition of the project to the General Plan build-out condition, the following roadway segments would continue to operate at substandard LOS E or F (Table 2.3-19):

- Old Highway 395 between SR-76 and E. Dulin Road;
- Old Highway 395 between E. Dulin Road and West Lilac Road;
- Lilac Road between New Road 19 (east of Betsworth Road and Valley Center Road; and
- Valley Center Road between Miller Road and Indian Creek Road.

The project would amend the Land Use Element to increase density on the project site, which would generate more traffic than was included in the County's General Plan Update forecast for the roadway segments identified above. These roadway segments would operate at LOS E or F without the project at build-out of the General Plan. The General Plan accepts these road segments operating at LOS E or F for reasons stated in the Mobility Element, which include environmental impacts and community character. The project would add additional traffic to these road segments that was not considered when Mobility Element was adopted. Therefore, to maintain correlation between the Land Use Element and Mobility Element, the roadways would require either an upgrade to the following roadway classifications or a determination that the further reduction in LOS at build-out would be acceptable.

- Old Highway 395 between SR-76 and E. Dulin Road - upgrade to Mobility Element Road Classification 4.2B;
- Old Highway 395 between E. Dulin Road and West Lilac Road - upgrade to Mobility Element Road Classification 4.2B;
- Lilac Road between New Road 19 (east of Betsworth Road and Valley Center Road - upgrade to Mobility Element Road Classification 6.2; and
- Valley Center Road between Miller Road and Indian Creek Road - upgrade to Mobility Element Road Classification 6.2.

Build-out Under the General Plan With Road 3

This section examines the scenario which includes the construction of Road 3 as depicted on the General Plan Mobility Element.

As shown in Table 2.3-20, the following four study area roadway segments are projected to operate at substandard LOS E/F upon Build-out of the General Plan (with Road 3) without the proposed project:

- Old Highway 395, between SR-76 and E. Dulin Road – LOS E, and the County General Plan Update has accepted LOS E/F operations along this segment;

- Old Highway 395, between E. Dulin Road and West Lilac Road – LOS E;
- Lilac Road, between New Road 19 (east of Betsworth Road and Valley Center Road – LOS F, and the County General Plan Update has accepted LOS E/F operations along this segment; and
- Valley Center Road, between Miller Road and Indian Creek Road – LOS F, and the County General Plan Update has accepted LOS E/F operations along this segment.

With the addition of the project to the build-out condition (with Road 3), the additional traffic generated by the project would degrade LOS on the following five roadway segments (Table 2.3-21).

- West Lilac Road, between Old Highway 395 and Main Street;
- West Lilac Road, between Main Street and Street "F";
- West Lilac Road, between Street "F" and Road 3;
- Old Highway 395, between SR-76 and E. Dulin Road; and
- Old Highway 395, between E. Dulin Road and West Lilac Road.

Like the Without Road 3 scenario, increased density on the project site would generate more traffic than was included in the County's General Plan Update forecast for the roadway segments identified above. Three of these roadway segments would operate at LOS E or F without the project at build-out of the General Plan. The General Plan accepts these road segments operating at LOS E or F for reasons stated in the Mobility Element. The project would add additional traffic to these road segments that was considered when the Mobility Element was adopted. West Lilac Road between Old Highway 395 to Main Street would operate at acceptable levels due to the increased operational capacity of the roundabouts to be constructed as part of the project at the project entrances. However, to maintain correlation between the Land Use Element and Mobility Element, the remaining roadways would require either an upgrade to the roadway classifications listed below or a determination that the further reduction in LOS at build-out would be acceptable.

- Old Highway 395, between SR-76 and E. Dulin Road - upgrade to Mobility Element Road Classification 4.2B;
- Old Highway 395, between E. Dulin Road and West Lilac Road - upgrade to Mobility Element Road Classification 4.2B;
- West Lilac Road, between Old Highway 395 and Main Street - upgrade to Mobility Element Road Classification 4.2B;
- West Lilac Road, between Main Street and Street "F" - upgrade to Mobility Element Road Classification 2.2C; and
- West Lilac Road, between Street "F" and Road 3 - upgrade to Mobility Element Road Classification 2.2C.

Pursuant to Mobility Element Policy 2.1, a lower LOS along specified roadways may be acceptable as described above. The widening of segments of West Lilac Road to add travel lanes would require considerable grading that would adversely affect active

agricultural operations and mature oak woodland habitat. Therefore, the adverse impacts of adding travel lanes would not justify the resulting benefit of increased traffic capacity and the segments of West Lilac Road from Main Street to Road 3 are proposed to be added to the list of Mobility Element roads for which LOS E or F is acceptable. It is noted that these segments would operate at an acceptable arterial speed.

2.3.4 Significance of Impacts Prior to Mitigation

2.3.4.1 Circulation System Operations

Existing Plus Project (Traffic Scenario A)

Roadway Segments

All roadway segments within the study area would operate at acceptable levels under the Existing Plus Project (Scenario A) conditions. Impacts would be less than significant.

Intersections

All intersections within the study area would operate at acceptable levels under the Existing Plus Project (Scenario A). Impacts would be less than significant.

Two-Lane Highway

All segments along Old Highway 395 within the study area would continue to operate at acceptable levels under Existing Plus Project (Traffic Scenario A) conditions. Impacts would be less than significant.

Freeway Segments

All segments of the I-15 within the study area would operate at acceptable levels under the Existing Plus Project (Scenario A) conditions. Impacts would be less than significant.

Existing Plus Project (Traffic Scenario B)

Roadway Segments

All roadway segments within the study area would operate at acceptable levels under the Existing Plus Project (Traffic Scenario B) conditions. Impacts would be less than significant.

Intersections

Under the Existing Plus Project (Traffic Scenario B) condition, the following two intersections would have significant direct impacts:

- I-15 SB Ramps/Gopher Canyon Road (**Impact TR-1**); and
- I-15 NB Ramps/Gopher Canyon Road (**Impact TR-2**).

Two-Lane Highway

All segments along Old Highway 395 within the study area would continue to operate at acceptable levels under Existing Plus Project (Traffic Scenario B) conditions. Impacts would be less than significant.

Freeway Segments

All segments of the I-15 within the study area under Existing Plus Project (Traffic Scenario B) conditions would operate at acceptable levels. Impacts would be less than significant

Existing Plus Project (Traffic Scenario C)

Mitigation measures from Traffic Scenario B (**M-TR-1** and **M-TR-2**) as identified below in subchapter 2.3.5.1 would be constructed in a previous phase of the project and, therefore, are assumed in the scenario.

Roadway Segments

The project would have a significant direct impact to the following three roadway segments under the Existing Plus Project (Traffic Scenario C) conditions:

- West Lilac Road from Old Highway 395 to Main Street (**Impact TR-3**);
- Gopher Canyon Road from E. Vista Way to I-15 (**Impact TR-4**); and
- E. Vista Way from Gopher Canyon Road to Osborne Street (**Impact TR-5**).

Intersections

Under the Existing Plus Project (Traffic Scenario C) condition, the following intersection would have significant direct impacts:

- Old Highway 395/West Lilac Road (**Impact TR-6**).

Two-Lane Highway

All segments along Old Highway 395 within the study area would continue to operate at acceptable levels under Existing Plus Project (Traffic Scenario C) conditions. Impacts would be less than significant.

Freeway Segments

All segments of the I-15 within the study area under Existing Plus Project (Traffic Scenario C) conditions would operate at acceptable levels. Impacts would be less than significant

Existing Plus Project (Traffic Scenario D)

Mitigation measures from Traffic Scenario B and C (M-TR-1 through M-TR-4) as identified below in subchapter 2.3.5.1 would be constructed in a previous phase of the project and, therefore, are assumed in the scenario.

Roadway Segments

No new significant impacts beyond those already assessed are identified under the Existing Plus Project (Traffic Scenario D) conditions. Impacts would be less than significant.

Intersections

Under the Existing Plus Project (Traffic Scenario D) condition, the following intersection would have significant direct impacts:

- Old Highway 395/Circle R Drive (**Impact TR-7**).

Two-Lane Highway

All segments along Old Highway 395 within the study area would continue to operate at acceptable levels under Existing Plus Project (Traffic Scenario D) conditions. Impacts would be less than significant.

Freeway Segments

All segments of the I-15 within the study area under Existing Plus Project (Traffic Scenario D) conditions would operate at acceptable levels. Impacts would be less than significant.

Existing Plus Project (Traffic Scenario E, Build-out)

Mitigation measures from Traffic Scenarios B, C, and D (M-TR-1 through M-TR-5) as identified below in subchapter 2.3.5.1 would be constructed in a previous phase of the project and, therefore, are assumed in the scenario.

Roadway Segments Under the Existing Plus Project (Traffic Scenario E, Build-out) condition, the following roadway segment would have a significant direct impact:

- E. Vista Way, from SR-76 to Gopher Canyon Road (**Impact TR-8**).

Intersections

All intersections within the study area would operate at acceptable levels under the Existing Plus Project (Scenario E, Build-out). Impacts would be less than significant.

Two-Lane Highway

All segments along Old Highway 395 within the study area would continue to operate at acceptable levels under Existing Plus Project (Traffic Scenario E, Build-out) conditions. Impacts would be less than significant.

Freeway Segments

All segments of the I-15 within the study area under Existing Plus Project (Traffic Scenario E, Build-out) conditions would operate at acceptable levels. Impacts would be less than significant.

Existing Plus Cumulative Projects Plus Project

All improvements to the roads for direct impact mitigation are assumed to have been constructed for the cumulative scenario.

Roadway Segments

The project would have a significant cumulative impact to these seven roadway segments:

- Camino Del Rey from Old River Road to West Lilac Road (**Impact TR-9**);
- Gopher Canyon Road from E. Vista Way to I-15 SB Ramps (**Impact TR-10**);
- E. Vista Way from SR-76 to Gopher Canyon Road (**Impact TR-11**);
- E. Vista Way from Gopher Canyon Road to Osborne Street (**Impact TR-12**);
- Pankey Road from Pala Mesa Drive to SR-76 (**Impact TR-13**);
- Lilac Road from Old Castle Road to Anthony Road (**Impact TR-14**); and
- Cole Grade Road from Fruitvale Road to Valley Center Road (**Impact TR-15**).

A cumulative impact would result on the West Lilac Road segment between Old Highway 395 and Main Street; however, the direct impact to this segment was identified under Existing Plus Project (Traffic Scenario C) and would be mitigated pursuant to M-TR-3 (see subchapter 2.3.5.1, below) prior to project build-out and would be less than significant in the cumulative condition.

Intersections

The project would have a significant cumulative impact to these 13 intersections:

- E. Vista Way/Gopher Canyon Road (**Impact TR-16**);
- SR-76/Old River Road/E. Vista Way (**Impact TR-17**);
- SR-76/Olive Hill Road/Camino Del Rey (**Impact TR-18**);
- SR-76/Old Highway 395 (**Impact TR-19**);
- SR-76/Pankey Road (**Impact TR-20**);
- Old Highway 395/E. Dulin Road (**Impact TR-21**);
- Old Highway 395/West Lilac Road (**Impact TR-22**);
- I-15 SB Ramps/Old Highway 395 (**Impact TR-23**);
- I-15 NB Ramps/Old Highway 395 (**Impact TR-24)**;

- Old Highway 395/Circle R Drive (**Impact TR-25**);
- I-15 SB Ramps/Gopher Canyon Road (**Impact TR-26**);
- I-15 NB Ramps/Gopher Canyon Road (**Impact TR-27**); and
- Miller Road/Valley Center Road (**Impact TR-28**)

Cumulative impacts would result at the intersections of I-15 NB Ramps/Gopher Canyon Road and Old Highway 395/Circle R Drive; however, mitigation measures M-TR-2 through M-TR-5 for project direct impacts (see subchapter 2.3.5.1, below), would be complete after construction of Traffic Scenarios B and D, respectively and no impacts would occur at these intersections in the cumulative condition.

Two-Lane Highway

All segments along Old Highway 395 within the study area would continue to operate at acceptable levels under cumulative conditions. Impacts would be less than significant.

Freeway Segments

The project would have a significant cumulative impact to the following 8 I-15 freeway segments:

- Between Riverside County Boundary and Old Highway 395 (**Impact TR-29**);
- Between Old Highway 395 and SR-76 (**Impact TR-30**);
- Between SR-76 and Old Highway 395 (**Impact TR-31);**
- Between Old Highway 395 and Gopher Canyon Road (**Impact TR-32**);
- Between Gopher Canyon Road and Deer Springs Road (**Impact TR-33**);
- Between Deer Springs Road and Centre City Parkway (**Impact TR-34**);
- Between Centre City Parkway and El Norte Parkway (**Impact TR-35**); and
- Between El Norte Parkway and SR-78 (**Impact TR-36**)

2.3.4.2 Transportation Hazard

The project would comply with applicable regulations and would not result in a significant traffic hazard. Sight distance is adequate, except for the intersection of Covey Lane and West Lilac Road. This area is comprised of ornamental trees and a number of coast live oaks. The bank could require shaving and the oaks would need to be trimmed back. The project proponent would request an off-site Clear Space Easement from the property owners. Thus, potential transportation hazards would be less than significant.

2.3.4.3 Public Transit, Bicycle, and Pedestrian Facilities

The project would provide bicycle and pedestrian facilities consistent with regulations. A lot would also be provided for a public transit station and public transit along streets would not be precluded. Thus, the impact to public transit, bicycle, and pedestrian facilities would be less than significant.

2.3.5 Mitigation

2.3.5.1 Circulation System Operations

Existing Plus Project (Traffic Scenario A)

No significant impacts to Roadway Segments, Intersections, Two-Lane Roads, Freeways, or Ramp Intersections would occur under the Exiting Plus Project (Traffic Scenario A) condition.

Existing Plus Project (Traffic Scenario B)

The project would have significant direct impacts on two study area intersections. The following improvements would be required to mitigate the identified traffic impacts:

Intersections

M-TR-1: Prior to the recordation of Final Map associated with the 1st EDU of Phase 4 (if construction follows the proposed Phasing Plan) or the 363rd EDU of the Lilac Hills Ranch Specific Plan, the applicant shall install traffic signals at I-15 SB Ramps/Gopher Canyon Road.

M-TR-2: Prior to the recordation of Final Map associated with the 1st EDU of Phase 4 (if construction follows the proposed Phasing Plan) or the 363rd EDU of the Lilac Hills Ranch Specific Plan, the applicant shall install traffic signals at I-15 NB Ramps/Gopher Canyon Road intersection.

No significant impacts to Roadway Segments, Two Lane Highways, Freeway Segments or Intersections would occur under the Exiting Plus Project (Traffic Scenario B) condition.

Existing Plus Project (Traffic Scenario C)

The project would have significant direct impacts on three study area roadway segments and one intersection. The following improvements would be required to mitigate the identified traffic impacts:

Roadway Segments

M-TR-3: Prior to the recordation of Final Map associated with the 929th EDU of the Lilac Hills Ranch Specific Plan the applicant shall improve West Lilac Road between Old Highway 395 and Main Street to meet the General Plan Mobility Element classification of 2.2C, subject to exceptions as approved by the County.

Intersections

M-TR-4: Prior to the recordation of Final Map associated with the 585th EDU of the Lilac Hills Ranch Specific Plan, the applicant shall install traffic signals at Old Highway 395/West Lilac Road intersection.

No significant impacts to Two-Lane Highways, Freeway Segments, or Intersections would occur under the Exiting Plus Project (Traffic Scenario C) condition.

Existing Plus Project (Project Scenario D)

The project would have significant direct impacts on one intersection. The following improvement would be required to mitigate the identified traffic impacts:

Intersections

M-TR-5: Prior to the recordation of Final Map with the 121st EDU (Phases 4 and 5), or 1,132 total EDU, the applicant shall install traffic signals at Old Highway 395/Circle R Drive intersection.

No significant impacts to Roadway Segments, Two Lane Highways, Freeway Segments or Intersections would occur under the Exiting Plus Project (Traffic Scenario D) condition.

Existing Plus Project (Project Scenario E, Build-out)

No significant impacts to Roadway Segments, Intersections, Two lane Roads, Freeway Segments or Intersections would occur under the Exiting Plus Project (Traffic Scenario E, Build-out) condition.

Existing Plus Cumulative Projects Plus Project

Roadway Segments

The project would have a significant cumulative impact to six roadway segments. The following mitigation measure would be required to mitigate the significant cumulative traffic impacts to Impacts TR-9, TR-10, TR-11, and TR-12. These roadway segments are included in the list of facilities included in the County's TIF. The TIF accommodates land use changes that would result from project approval. The TIF should be updated to revise fee differentials associated with adding the project's land uses to the program. The project would pay the TIF fee.

M-TR-6: Prior to issuance of any building permit for new structures within the Lilac Hills Ranch Specific Plan, cumulative impacts to roadways shall be mitigated through payment to the TIF Program, which should be updated to include the changes to the Land Use and Mobility Elements proposed by the project.

Significant cumulative impacts identified as TR-13 and TR-14 would also occur to Pankey Road from Pala Mesa Drive to SR-76 and Lilac Road from Old Castle Road to Anthony Road, respectively. These road segments are not included in the current TIF Program. Neither of these segments were eligible for inclusion in the TIF Program pursuant to the County of San Diego TIF Transportation Needs Assessment Report (September 2012). The following mitigation measures would mitigate the significant cumulative traffic impacts to Impacts TR-12 and TR-13:

M-TR-7: (a) Pay the TIF after the TIF has been updated to include Pankey Road from Pala Mesa Drive to SR-76 and Lilac Road from Old Castle Road to Anthony Road and to account for the changes in the Land Use and Mobility Elements proposed by the project; or

(b) Construct, or agree to construct Pankey Road from Pala Mesa Drive to SR-76 to a 4.2B classification and Lilac Road from Old Castle Road to Anthony Road to a Mobility Element Road Classification 2.1C.

The TIF is designed to be updated to reflect changes to the Land Use and Mobility Elements of the General Plan. If the Board of Supervisors approves the Lilac Hills Ranch project, the TIF should be updated to account for the changes in the Land Use Element and Mobility Element that are proposed as part of the project and to add the road segments not currently in the TIF that this project affects.

Intersections

The project would have a significant cumulative impact to 13 intersections. **M-TR-6**, identified above, would mitigate the significant cumulative traffic impacts to Impacts TR-16, TR-17, TR-18, TR-20, TR-22, TR-26, and TR-27. These intersections are included in the County's TIF.

Significant cumulative impacts identified as TR-21 and TR-28 would occur to Old Highway 395/East Dulin Road and Miller Road/Valley Center Road intersections. These intersections are not currently included in the TIF Program. The following mitigation measures would mitigate the significant cumulative traffic impacts to Impacts TR-19 and TR-26:

M-TR-8: (a) Pay the TIF after the TIF has been updated to include Old Highway 395/East Dulin Road and Miller Road/Valley Center Road intersections and to account for the changes in the Land Use and Mobility Elements proposed by the project; or

(b) Construct, or agree to construct traffic signals at these intersections.

The TIF is designed to be updated to reflect changes to the Land Use and Mobility Elements of the General Plan. If the Board of Supervisors approves the Lilac Hills Ranch project, the TIF should be updated to account for the changes in the Land Use Element and Mobility Element that are proposed as part of the project and to add the facilities not currently in the TIF that this project affects.

Two-Lane Highways

No significant impacts to Two-Lane Highways would occur under the cumulative condition.

Freeway Intersections

Significant cumulative impacts identified as TR-19, TR-23, and TR-24 would occur to Old Highway 395/SR-76, I-15 SB Ramps/Old Highway 395, and I-15 NB Ramps/Old Highway 395, respectively. These are all Caltrans facilities. County staff has coordinated

with Caltrans, and Caltrans confirmed that it has no project, funding, or program to improve these intersections to which the applicant could make a fair-share contribution. Therefore, because improvements necessary to reduce significant cumulative impacts are the responsibility of another jurisdiction, and no program is available to which the applicant could make a fair share contribution, no feasible mitigation measures are available to reduce the significant cumulative impacts at these three intersections. The impacts would remain significant and unavoidable. Caltrans agrees with this conclusion.

Freeway Segments

Impacts to eight freeways segments were identified (Impacts TR-29 through TR-36). However, County staff has coordinated with Caltrans, and Caltrans has confirmed that it has no project, funding or program to improve these segments to which the applicant could make a fair-share contribution. Therefore, because improvements necessary to reduce these significant cumulative impacts are the responsibility of another jurisdiction, and no program is available to which the applicant could make a fair share contribution, no feasible mitigation measures are available to reduce the significant cumulative impacts to these freeway segments, and the cumulative freeway impacts would remain significant and unavoidable. Caltrans agrees with this conclusion.

2.3.6 Conclusion

2.3.6.1 Circulation System Operations

Existing Plus Project (Traffic Scenario A)

All Roadway Segments, Intersections, Two Lane Roads, Freeway Segments and Ramp Intersections would operate at acceptable levels under the Existing Plus Project (Traffic Scenario A) conditions. Impacts would be less than significant.

Existing Plus Project (Traffic Scenario B)

The project would have a direct significant impact at two intersections as follows:

- Impact TR-1: I-15 SB Ramps/Gopher Canyon Road intersection; and
- Impact TR-2: I-15 NB Ramps/Gopher Canyon Road intersection.

These impacts would be mitigated through M-TR-1 and M-TR-2, which would require the installation of a traffic signal at each of these locations prior to construction of the first EDU of Phase 4 or prior to the 363rd EDU. The traffic signals would provide steady regulation of traffic flow reducing intersection delay and thereby mitigating the impact. Implementation of M-TR-1 and M-TR-2 would reduce the direct impacts to less than significant.

No significant impacts to Roadway Segments, Two Lane Highways, Freeway Segments or Intersections would occur under the Exiting Plus Project (Traffic Scenario B) condition.

Existing Plus Project (Traffic Scenario C)

The project would have a direct significant impact on three roadway segments as follows:

- Impact TR-3: West Lilac Road between Old Highway 395 and Main Street;
- Impact TR-4: Gopher Canyon Road between E. Vista Way and I-15 SB; and
- Impact TR-5: E. Vista Way between Gopher Canyon Road and Osborne Street.

Impact TR-3 shall be mitigated through M-TR-3, which would require widening of the West Lilac Road segment between Old Highway 395 and Main Street to its current classification as a Mobility Element 2.2C road, subject to exceptions as approved by the County. The road widening would allow the road to function at an acceptable LOS of D after the addition of traffic generated by this phase of the project. Implementation of M-TR-3 would reduce the direct impact to less than significant.

Under a more detailed arterial analysis of Impacts TR-4 and TR-5, these two roadways would, in fact, operate at an acceptable LOS. Specifically, in this case it was important to consider how performance of a roadway segment is heavily influenced by the ability of the arterial intersections to accommodate peak hour traffic. Highway Capacity Software (HCS) 2000 developed by McTrans was employed for the arterial analysis. The HCS arterial analysis methodology is based upon Chapter 15 (Urban Street) and Chapter 20 (Two Lane Highway) of the Highway Capacity Manual (HCM) 2000, which determines average travel speed and facility level of service according to the roadway functional classification. E. Vista Way, between Gopher Canyon Road and Osborne Street was evaluated as a Class I arterial with a free-flow speed (FFS) of 50 mph since traffic signals along this facility are located less than one mile apart; while Gopher Canyon Road, between E. Vista Way and I-15 SB Ramps was analyzed as a 2-lane highway given the fact that traffic signals are located at more than two-mile apart (> 4 miles). Based on the arterial analysis both segments would operate at acceptable LOS D or better under Existing Plus Project (Traffic Scenario C) conditions. However, under County standard threshold measures, these two road segments operate at unacceptable levels.

Overall, the project's percentage contribution of trips on these roads would be 3.65 percent (Gopher Canyon, between E. Vista Way and I-15), and 1.5 (E. Vista Way, between Gopher Canyon Road and Osborne Street) percent. These roadways currently operate at LOS E. Pursuant to County thresholds, despite the low percentage of trips added by the project, a significant direct impact is identified. Mitigation to reduce impacts TR-4 and TR-5 would require widening of these roads to four-lane highways consistent with Mobility Element Road Classifications 4.1A and 4.1B. However, straightening and widening these road segments would encroach into agricultural lands and existing agricultural operations and would cause significant impacts to oak woodlands and wetlands located along a portion of their length. These significant impacts make these mitigation measures infeasible. Impacts TR-4 and TR-5 would, therefore, remain significant and unavoidable.

The project would have a direct significant impact on one intersection as follows:

- Impact TR-6: Old Highway 395/West Lilac Road.

This impact would be mitigated by M-TR-4, which would require the installation of a traffic signal at this location. The traffic signal would provide steady regulation of traffic flow at this location reducing intersection delay and thereby mitigating the impact. Implementation of M-TR-4 will reduce the direct impact to less than significant.

No significant impacts to Two Lane Roads, Freeway Segments or Intersections would occur under the Exiting Plus Project (Traffic Scenario C) condition.

Existing Plus Project (Traffic Scenario D)

The project would have a significant direct impact at one intersection:

- Impact TR-7: Old Highway 395/Circle R Drive.

The impact would be mitigated by M-TR-5, which would require the installation of a traffic signal at this location. The traffic signal would provide steady regulation of traffic flow reducing intersection delay and thereby mitigating the impact. Implementation of M-TR-5 would reduce the direct impact to less than significant.

No significant impacts to Roadway Segments, Two Lane Highways, Freeway Segments or Intersections would occur under the Exiting Plus Project (Traffic Scenario D) condition.

Existing Plus Project (Traffic Scenario E, Build out)

The project would have a significant direct impact at one roadway segment:

- Impact TR-8: E. Vista Way, between SR-76 and Gopher Canyon Road.

Given the rural community character where Gopher Canyon Road and E. Vista Way are located and the minimal interruption to traffic flows, an HCS arterial analysis was performed to provide a location specific impact analysis. E. Vista Way, between SR-76 and Gopher Canyon Road was evaluated as a Class I arterial with a free-flow speed (FFS) of 50 mph since traffic signals along this facility are located less than one mile apart; while Gopher Canyon Road, between E. Vista Way and I-15 SB Ramps was analyzed as a 2-lane highway given the fact that traffic signals are located at more than two-mile apart (>4 miles). E. Vista Way, between SR-76 and Gopher Canyon Road would operate at acceptable LOS D or better under Existing Plus Project (Traffic Scenario E, Build-out) conditions based on the arterial analysis. However, under County standard threshold measures, this road segment would operate at an unacceptable level.

Overall, the project's percentage contribution of trips on this road would be 1.37 percent. This roadway currently operates at LOS E. Pursuant to County thresholds, despite the low percentage of trips added by the project, a significant direct impact is identified. Mitigation of Impact TR-8 would require widening this road segment to four lanes consistent with Mobility Element Road Classification 4.1A. However, widening would have significant impacts to productive agricultural lands and to wetlands that extend along the length of the road. Therefore, this mitigation would be infeasible. Impact TR-8 would remain significant and unavoidable.

No significant impacts to Intersections, Two-Lane Highways, Freeway Segments, or Intersections would occur under the Exiting Plus Project (Traffic Scenario E, Build-out) condition.

Existing Plus Cumulative Projects Plus Project

Roadway Segments

The project would have a significant cumulative impact to seven roadway segments:

- Impact TR-9: Camino Del Rey, from Old River Road to West Lilac Road;
- Impact TR-10: Gopher Canyon Road, E. Vista Way to I-15 SB Ramps;
- Impact TR-11: E. Vista Way, from SR-76 to Gopher Canyon Road;
- Impact TR-12: E. Vista Way, from Gopher Canyon Road to Osborne Street;
- Impact TR-13: Pankey Road, from Pala Mesa Drive to SR-76;
- Impact TR-14: Lilac Road, from Old Castle Road to Anthony Road; and
- Impact TR-15: Cole Grade Road, between Fruitvale Road and Valley Center Road.

Impacts TR-9 through TR-12, and TR-15 would be mitigated through M-TR-6 which requires the applicant to participate in the TIF Program. The TIF Program was specifically designed to address cumulative impacts. The TIF Program includes road improvements required to provide adequate circulation through Year 2030. Required improvements are specified and funds are collected from projects to pay for the road improvements. Since the TIF Program was designed to address cumulative traffic impacts, participation in the TIF Program constitutes effective and adequate mitigation for cumulative traffic impacts. These identified roadway segments are included in the TIF and payment of the TIF fees would mitigate the cumulative impact. Therefore, payment of TIF fees would reduce impacts to less than significant.

Impact TR-13 and TR-14 affect roadway segments that are not currently included in the TIF Program. The TIF is designed to be updated to reflect changes to the Land Use and Mobility Elements of the General Plan. If the project is approved, the TIF Program should be updated to include these facilities. If the TIF Program is updated to include these facilities, cumulative impacts to the roadways would be mitigated through payment to the TIF Program.

If the TIF is not updated to include Pankey Road from Pala Mesa Drive to SR-76, an alternative mitigation measure for Impact TR-13 would be to construct Pankey Road from Pala Mesa Drive to SR-76 to Mobility Element 4.2B classification. However, the Pankey Road segment is already required to be improved by the Campus Park and Meadowood projects, which have been conditioned to construct the roadway to its current Mobility Element Road Classification of 2.1A. The roadway segment would also provide access to the Campus Park West project, which is still being processed. The environmental impacts associated with the improvement of Pankey Road are described in the Campus Park EIR. Furthermore, the proposed project contributes approximately 5 percent of the total trips to the cumulative traffic condition. This small amount is not roughly proportional to the mitigation of improving the roadway to a 4.B classification

over the length of Pankey Road. Mitigation measures must be roughly proportional to the environmental impacts caused by the project. Therefore, because the project's contribution to the cumulative traffic condition is not roughly proportional to the improvements required to mitigate the impact, conditioning this project to construct the road improvements is not feasible, and the impact would remain significant and unavoidable.

If the TIF is not updated to include Lilac Road from Old Castle Road to Anthony Road, an alternative mitigation measure for Impact TR-14 would be as follows. To mitigate the project's contribution to the cumulative impact to this roadway segment, the project shall construct intermittent left-turn lanes at major access locations along Lilac Road, between Old Castle Road and Anthony Road, identified as (1) the segment between Robles Lane and Cumbres Road; and (2) the intersection at Sierra Rojo Road and Lilac Road. With the addition of left-turn lanes at these locations, left-turning vehicles would not block through traffic moving in the same direction, resulting in the increase of roadway capacity and an improvement of traffic operations along Lilac Road. These improvements would allow the roadway to operate at LOS D or better.

Should these improvements require additional grading outside the currently disturbed areas, potential impacts could result to surrounding biological and cultural resources. Pursuant to the County's vegetation mapping, the additional widening of Lilac Road necessary to add the turn lanes at the Robles Lane and Cumbres Road intersection could impact approximately 0.17 acre of chaparral. Impacts at Sierra Rojo and Lilac Road would affect approximately 0.14 acre of woodlands.

Impacts to sensitive resources would be mitigated in accordance with the County's Biology Guidelines or relevant regulations. An additional mitigation measure would include a grading monitor to be present to assure the identification and proper handling of potential archeological resources that may be disturbed during grading of the limits of the road.

Overall, Impact TR-14 (Lilac Road from Old Castle Road to Anthony Road) would be mitigated to less than significant. The project would pay into the TIF Program if it has been updated to mitigate local and regional cumulative impacts. In the alternative, the project would construct intermittent turn lanes, as described above. The alternative measure would mitigate the project's contribution to the cumulative impact along this roadway segment to less than significant.

Intersections

The project would have a significant cumulative impact to the following 13 intersections:

- Impact TR-16: E. Vista Way/Gopher Canyon Road;
- Impact TR-17: SR-76/Old River Road/E. Vista Way;
- Impact TR-18: SR-76/Olive Hill Road/Camino Del Rey;
- Impact TR-19: SR-76/Old Highway 395;
- Impact TR-20: SR-76/Pankey Road;
- Impact TR-21: Old Highway 395/E. Dulin Road;

- Impact TR-22: Old Highway 395/West Lilac Road;
- Impact TR-23: I-15 SB Ramps/Old Highway 395;
- Impact TR-24: I-15 SB Ramps/Old Highway 395;
- Impact TR-25: Old Highway 395/Circle R Drive;
- Impact TR-26: I-15 SB Ramps/Gopher Canyon Road;
- Impact TR-27: I-15 NB/Gopher Canyon Road; and
- Impact TR-28: Miller Road/Valley Center Road.

Impacts TR-16, TR-17, TR-18, TR-20, TR-22, TR-25, and TR-27 would be mitigated through M-TR-6 which requires the applicant to participate in the TIF Program. The TIF Program was specifically designed to address cumulative issues. The TIF Program includes road improvements required to provide adequate circulation through Year 2030. Required improvements are specified and funds are collected from projects to pay for the road improvements. Since the TIF Program was designed to address cumulative traffic impacts to specified facilities, participation in the TIF Program constitutes effective and adequate mitigation for cumulative traffic impacts. These identified roadway segments would operate at an acceptable LOS once upgraded as identified in the TIF program. Therefore, payment of TIF fees would reduce impacts to less than significant.

If the TIF is not updated to include the intersections of Old Highway 395/E. Dulin Road and Miller Road/Valley Center Road, alternative mitigation measure for Impacts TR-21 and TR-28 would be construction of signals at each respective intersection, as identified in the TIS. These improvements would allow the roadway to operate at LOS D or better. Installation of traffic signals would occur within disturbed areas and no significant impacts would occur.

Overall, Impacts TR-21 and TR-28 (Old Highway 395/E. Dulin Road and Miller Road/Valley Center Road, respectively) would be mitigated to less than significant. If the TIF Program has been updated to include these improvements, payment of TIF fees will mitigate impacts to TR-20 and TR-27. In the alternative, if the TIF program has not been updated to include these improvements, the project would construct traffic signals once signal warrants are met, as described above. The alternative measure would mitigate the project's contribution to the cumulative impact at these two intersections to less than significant.

Significant cumulative impacts identified as TR-19, TR-23 and TR-24 affect Caltrans facilities. County staff coordinated with Caltrans, and Caltrans confirmed that it has no project, funding, or program to make the necessary improvements to which the applicant can make a fair-share contribution. Therefore, because improvements necessary to reduce significant cumulative impacts are the responsibility of another jurisdiction, and no program is available to which the applicant could contribute, mitigation is infeasible. No other feasible mitigation measures are available to reduce the significant cumulative impacts at these three intersections. The impacts would remain significant and unavoidable.

Freeway Segments

The project would have a significant cumulative impact to the following eight I-15 freeway segments:

- Impact TR-29: Between Riverside County Boundary and Old Highway 395;
- Impact TR-30: Between Old Highway 395 and SR-76;
- Impact TR-31: Between SR-76 and Old Highway 395;
- Impact TR-32: Between Old Highway 395 and Gopher Canyon Road;
- Impact TR-33: Between Gopher Canyon Road and Deer Springs Road;
- Impact TR-34: Between Deer Springs Road and Centre City Parkway;
- Impact TR-35: Between Centre City Parkway and El Norte Parkway; and
- Impact TR-36: Between El Norte Parkway and SR-78.

As disclosed above, Caltrans has no project, funding, or program to which the applicant can make a fair-share contribution. Therefore, because funding sources have not been identified for planned improvements that would reduce these impacts no feasible mitigation measures are available at this time and the cumulative freeway impacts would remain significant and unavoidable.

2.3.6.2 Transportation Hazard

The project would comply with applicable regulations and would not result in a significant traffic hazard. Thus, the project transportation hazard impact would be less than significant.

2.3.6.3 Public Transit, Bicycle, and Pedestrian Facilities

The project would provide bicycle and pedestrian facilities consistent with regulations. A lot would also be provided for a public transit station and public transit along streets would not be precluded. As the project would provide alternative transportation opportunities, the project would be consistent with County Mobility Element Goals 8 and 9. Thus, the project impact to public transit, bicycle, and pedestrian facilities would be less than significant.

2.3.6.4 Alternative Project Design

In accordance with Section 15126.6(a), Chapter 4.0 of the EIR includes an analysis of alternatives to the proposed project that would reduce or avoid significant impacts. Table 4-2 shows those alternatives that would reduce significant and unavoidable traffic impacts associated with the project. Refer to Chapter 4.0 for a detailed analysis of the alternatives.

TABLE 2.3-1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS

Roadway	From	To	Cross-Section	LOS Threshold (LOS D)	Traffic Count Date	Average Daily Traffic (ADT)	Level of Service (LOS)
E. Dulin Road	Old Highway 395	SR-76	2-Ln	10,900	Dec-12	1,830	A
W. Lilac Road	Camino Del Rey	Camino Del Cielo	2-Ln	8,700	Dec-12	2,270	A
W. Lilac Road	Camino Del Cielo	Old Highway 395	2-Ln	8,700	Mar-12	2,140	A
W. Lilac Road	Old Highway 395	Main Street	2-Ln	8,700	Oct-12	1,150	A
W. Lilac Road	Main Street	Street “F”	2-Ln	8,700	Oct-12	1,150	A
W. Lilac Road	Street “F”	Covey Lane	2-Ln	8,700	Oct-12	1,150	A
W. Lilac Road	Covey Lane	Circle R Drive	2-Ln	8,700	Mar-11	480	A
W. Lilac Road	Circle R Drive	Lilac Road	2-Ln	8,700	Mar-11	1,170	A
Camino Del Cielo	Camino Del Rey	W. Lilac Road	2-Ln	10,900	Dec-12	630	A
Olive Hill Road	Shamrock Road	SR-76	2-Ln	8,700	Dec-12	3,380	A
Camino Del Rey	SR-76	Old River Road	2-Ln	10,900	Sep-11	9,350	D
Camino Del Rey	Old River Road	W. Lilac Road	2-Ln	10,900	Dec-12	8,640	D
Camino Del Rey	W. Lilac Road	Camino Del Cielo	2-ln w/ SM	13,500	Dec-12	6,730	C
Camino Del Rey	Camino Del Cielo	Old Highway 395	2-Ln	8,700	Dec-12	4,850	A
Gopher Canyon Road	**E. Vista Way**	**I-15 SB Ramps**	**2-Ln**	**10,900**	**Dec-12**	**15,320**	**E**
Gopher Canyon Road	I-15 SB Ramps	I-15 NB Ramps	4-Ln	30,800	Nov-11	12,390	A
Gopher Canyon Road	I-15 NB Ramps	Old Highway 395	4-Ln	30,800	Nov-11	11,870	A
Circle R Drive	Old Highway 395	Mountain Ridge Road	2-Ln	10,900	Aug-11	4,030	B
Circle R Drive	Mountain Ridge Road	W. Lilac Road	2-Ln	10,900	Mar-11	1,770	A
Old Castle Road	Old Highway 395	Lilac Road	2-Ln	10,900	Mar-11	6,840	C
E. Vista Way	**SR-76**	**Gopher Canyon Road**	**2-Ln w/ TWLTL**	**13,500**	**Dec-12**	**15,120**	**E**
E. Vista Way	**Gopher Canyon Road**	**Osborne Street**	**2-Ln w/ TWLTL**	**13,500**	**Dec-12**	**21,020**	**F**
Old River Road	SR-76	Camino Del Rey	2-Ln	10,900	Dec-12	4,070	B
Champagne Boulevard	Old Castle Road	Lawrence Welk Drive	2-Ln	13,500	Mar-12	4,170	B
Pankey Road	Pala Mesa Drive	SR-76	2-Ln	10,900	Dec-12	70	A
Lilac Road	Couser Canyon Road	W. Lilac Road	2-Ln	8,700	Dec-12	1,150	A
Lilac Road	W. Lilac Road	Old Castle Road	2-Ln	8,700	Mar-11	2,640	A
Lilac Road	Old Castle Road	Anthony Road	2-Ln	10,900	Sep-11	9,010	D
Lilac Road	Anthony Road	Betsworth Road	2-Ln	10,900	Sep-11	8,740	D
Lilac Road	Betsworth Road	Valley Center Road	2-Ln	13,500	Sep-11	9,620	D

TABLE 2.3-1
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS
(continued)

Roadway	From	To	Cross-Section	LOS Threshold (LOS D)	Traffic Count Date	Average Daily Traffic (ADT)	Level of Service (LOS)
Valley Center Road	Woods Valley Road	Lilac Road	4/Ln w/ TWLTL/RM	27,000	Dec-12	21,290	C
Valley Center Road	Lilac Road	Miller Road	4-Ln w/ RM	33,400	Sep-11	24,280	B
Valley Center Road	Miller Road	Cole Grade Road	4-Ln w/ RM	27,000	Sep-11	22,440	C
Valley Center Road	Cole Grade Road	Vesper Road	2-Ln	13,500	Sep-11	11,490	D
Miller Road	Misty Oak Road	Valley Center Road	2-Ln	8,000	Sep-11	1,460	A
Cole Grade Road	Fruitvale Road	Valley Center Road	2-Ln w/ TWLTL	13,500	Sep-11	10,660	D

SOURCE: Chen Ryan Associates 2013.
Notes:
Bold letter indicates unacceptable LOS E or F.
RM = Raised Median.
SM = Striped Median.
TWLTL = Two-Way Left-Turn Lane.

TABLE 2.3-2
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS

Intersection	Traffic Control	Traffic Count Date	AM Peak Hour		PM Peak Hour	
			Average Delay (sec.)	LOS	Average Delay (sec.)	LOS
1. E. Vista Way / Gopher Canyon Road	Signal	Nov-11	24.3	C	48.7	D
2. SR-76 / Old River Road/E. Vista Way	Signal	Nov-08	**73.9**	**E**	52.3	D
3. SR-76 / Olive Hill Road/Camino Del Rey	Signal	Sep-11	43.6	D	**60.8**	**E**
4. Old River Road / Camino Del Rey	OWSC	Nov-12	23.2	D	12.2	B
5. W. Lilac Road / Camino Del Rey	OWSC	Jan-11	15.4	C	11.0	B
6. Old Highway 395 / SR-76	Signal	Mar-11	43.0	D	42.2	D
7. Pankey Road / SR-76	TWSC	Dec-11	12.5	B	15.2	C
8. Old Highway 395 / E. Dulin Road	OWSC	Mar-11	14.6	B	11.2	B
9. Old Highway 395 / W. Lilac Road	TWSC	Mar-11	18.5	C	13.3	B
10. I-15 SB Ramps / Old Highway 395	OWSC	Mar-11	10.6	B	12.1	B
11. I-15 NB Ramps / Old Highway 395	OWSC	Mar-11	9.9	A	11.2	B
12. Old Highway 395 / Camino Del Rey	OWSC	Mar-11	10.1	B	11.0	B
13. Old Highway 395 / Circle R Drive	OWSC	Mar-11	20.4	C	22.5	C
14. I-15 SB Ramps / Gopher Canyon Road	OWSC	Nov-11	**468.2**	**F**	**173.0**	**F**
15. I-15 NB Ramps / Gopher Canyon Road	OWSC	Nov-11	30.5	D	**1945.4**	**F**
16. Old Highway 395 / Gopher Canyon Road	Signal	Mar-11	16.1	B	8.8	A
17. Old Highway 395 / Old Castle Road	Signal	Mar-11	13.9	B	15.7	B
18. W. Lilac Road / Covey Lane	TWSC	Oct-12	8.8	B	9.1	A
19. Mountain Ridge Road / Circle R Drive	TWSC	Mar-11	9.3	A	9.6	A
20. W. Lilac Road / Circle R Drive	OWSC	Mar-11	9.3	A	9.3	A
21. Lilac Road / W. Lilac Road	OWSC	Mar-11	9.6	A	9.9	A
22. Lilac Road / Old Castle Road	OWSC	Mar-11	11.8	B	17.8	C
23. Valley Center Rd / Lilac Road	Signal	Mar-11	10.5	B	22.6	C
24. Miller Road / Valley Center Road	OWSC	Sep-11	16.9	C	25.2	D
25. Cole Grade Road / Valley Center Road	Signal	Sep-11	31.1	C	34.9	C

SOURCE: Chen Ryan Associates 2013.
Notes:
LOS = level of service
Bold letter indicates unacceptable LOS E or F.
AWSC = All-Way Stop Controlled.
TWSC = Two-Way Stop Controlled.
OWSC = One-Way Stop Controlled.
For OWSC and TWSC intersections, the delay shown is the worst delay experienced by any of the approaches.

TABLE 2.3-4
FREEWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS

Freeway	Segment	ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	Peak Hour Factor (PHF)	% of Heavy Vehicle	Volume (pc/h/ln)	V/C	LOS
I-15	Riverside County Boundary to Old Highway 395	134,000	8.4%	11,321	0.64	4	0.95	6.75%	1,957	0.833	D
I-15	Old Highway 395 to SR-76	134,000	7.4%	9,969	0.73	4	0.95	6.75%	1,984	0.844	D
I-15	SR-76 to Old Highway 395	113,000	7.8%	8,839	0.69	4	0.95	8.40%	1,661	0.707	C
I-15	Old Highway 395 to Gopher Canyon Road	110,000	8.1%	8,884	0.67	4	0.95	8.40%	1,627	0.692	C
I-15	Gopher Canyon Road to Deer Springs Road	117,000	8.1%	9,449	0.67	4	0.95	13.20%	1,770	0.753	C
I-15	Deer Springs Road to Centre City Parkway	117,000	8.0%	9,400	0.66	4	0.95	13.20%	1,752	0.745	C
I-15	Centre City Parkway to El Norte Parkway	111,000	8.0%	8,918	0.66	4	0.95	13.20%	1,662	0.707	C
I-15	El Norte Parkway to SR-78	127,000	7.9%	9,996	0.66	4	0.95	10.00%	1,836	0.781	C
I-15	SR-78 to W Valley Parkway	192,000	8.1%	15,626	0.60	5+2ML	0.95	10.00%	1,480	0.630	B
I-15	W Valley Parkway to Auto Parkway	179,000	8.1%	14,568	0.60	5+2ML	0.95	10.00%	1,380	0.587	B
I-15	Auto Parkway to W Citracado Parkway	172,000	7.8%	13,340	0.60	5+2ML	0.95	10.00%	1,256	0.534	B
I-15	W Citracado Parkway to Via Rancho Parkway	196,000	7.8%	15,201	0.60	5+2ML	0.95	7.00%	1,411	0.600	B
I-15	Via Rancho Parkway to Bernardo Drive	198,000	7.4%	14,572	0.58	5+2ML	0.95	7.00%	1,312	0.558	B
I-15	Bernardo Drive to Rancho Bernardo Road	201,000	7.4%	14,793	0.58	5+2ML	0.95	7.00%	1,332	0.567	B
I-15	Rancho Bernardo Road to Bernardo Center Drive	209,000	7.3%	15,345	0.54	5+2ML	0.95	7.00%	1,280	0.545	B
I-15	Bernardo Center Drive to Camino Del Norte	214,000	7.3%	15,712	0.54	5+2ML	0.95	7.00%	1,311	0.558	B

SOURCE: Caltrans, Chen Ryan Associates; 2013.
Notes:
Bold letter indicates unacceptable LOS E or F.
ML = Managed Lane.
pc/h/ln = passenger-cars per hour per lane
V/C = volume/capacity
LOS = level of service

TABLE 2.3-9
LILAC HILLS RANCH PROJECT TRIP GENERATION
PHASE E – BUILD-OUT

Land Use	Units	Trip Rate	Daily Trips	AM Peak Hour		PM Peak Hour	
				%	Trips	%	Trips
Single Family	903	10/DU	9,030	8%	722 (217-in/506-out)	10%	903 (632-in/271-out)
Multi-Family	375	6/DU	2,250	8%	180 (36-in/144-out)	9%	203 (142-in/61-out)
Senior Community	468	4/DU	1,872	5%	94 (37-in/56-out)	7%	131 (79-in/52-out)
Assisted Living	200	2.5/Bed	500	4%	20 (12-in/8-out)	8%	40 (20-in/20-out)
Specialty/Strip Commercial	61.5	40/KSF	2,460	3%	74 (44-in/30-out)	9%	221 (111-in/111-out)
Office	28.5	14/KSF	399	15%	60 (54-in/6-out)	15%	60 (12-in/48-out)
Country Inn/B&B	50	9/Room	450	8%	36 (14-in/22-out)	9%	41 (24-in/16-out)
Church	10.7	30/Acres	321	5%	16 (10-in/6-out)	8%	26 (13-in/13-out)
Elementary School (K-5)	568	1.6/Student	909	32%	291 (175-in/116-out)	9%	82 (33-in/49-out)
Middle School (6-8)	132	1.4/Student	185	30%	56 (33-in/22-out)	9%	17 (7-in/10-out)
Recreation Center[1]	40.0	22.88/KSF	915	12%	108 (57-in/51-out)	10%	95 (38-in/57-out)
Neighborhood/County Park	23.8	5/Acres	119	4%	5 (2-in/2-out)	8%	10 (5-in/5-out)
Water Reclamation	2.4	6/Acres	14	11%	2 (1-in/1-out)	10%	1 (1-in/1-out)
Recycling Center	0.6	6/Acres	4	11%	0 (0-in/0-out)	10%	0 (0-in/0-out)
Total by Phase E – Build-out			**19,428**		**1,663 (693-in/970-out)**		**1,829 (1,115-in/714-out)**

SOURCE: Chen Ryan Associates 2013.

Note:
[1]Trip generation rate is based on ITE Trip Generation Manual 8th Edition.

TABLE 2.3-10
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT (PHASE E – BUILD-OUT) CONDITIONS

Roadway	From	To	With Project Build-out				Existing		Project Build-out ADT	Direct Impact?
			Cross-Section	LOS Threshold (LOS D)	ADT	LOS	ADT	LOS		
E. Dulin Road	Old Highway 395	SR-76	2-Ln	10,900	3,960	B	1,830	A	2,140	No
W. Lilac Road	Camino Del Rey	Camino Del Cielo	2-Ln	8,700	3,160	A	2,270	A	890	No
W. Lilac Road	Camino Del Cielo	Old Highway 395	2-Ln	8,700	3,290	A	2,140	A	1,150	No
W. Lilac Road	Old Highway 395	Main Street	2.2C	13,500	12,650	D	1,150	A	11,500	No
W. Lilac Road	Main Street	Street "F"	2-Ln	8,700	2,960	A	1,150	A	1,810	No
W. Lilac Road	Street "F"	Covey Lane	2-Ln	8,700	1,810	A	1,150	A	660	No
W. Lilac Road	Covey Lane	Circle R Drive	2-Ln	8,700	1,660	A	480	A	1,180	No
W. Lilac Road	Circle R Drive	Lilac Road	2-Ln	8,700	2,470	A	1,170	A	1,300	No
Camino Del Cielo	Camino Del Rey	W. Lilac Road	2-Ln	10,900	680	A	630	A	50	No
Olive Hill Road	Shamrock Road	SR-76	2-Ln	8,700	3,470	A	3,380	A	90	No
Camino Del Rey	SR-76	Old River Road	2-Ln	10,900	9,660	D	9,350	D	300	No
Camino Del Rey	Old River Road	W. Lilac Road	2-Ln	10,900	9,560	D	8,640	D	920	No
Camino Del Rey	W. Lilac Road	Camino Del Cielo	2-ln w/ SM	13,500	6,790	C	6,730	C	60	No
Camino Del Rey	Camino Del Cielo	Old Highway 395	2-Ln	8,700	4,950	A	4,850	A	110	No
Gopher Canyon Road	**E. Vista Way**	**I-15 SB Ramps**	**2-Ln**	**10,900**	**15,890**	**E**	**15,310**	**E**	**580**	***Yes > 200 ADT***
Gopher Canyon Road	I-15 SB Ramps	I-15 NB Ramps	4-Ln	30,800	13,480	A	12,390	A	1,090	No
Gopher Canyon Road	I-15 NB Ramps	Old Highway 395	4-Ln	30,800	13,440	A	11,870	A	1,580	No
Circle R Drive	Old Highway 395	Mountain Ridge Road	2-Ln	10,900	5,940	C	4,030	B	1,910	No
Circle R Drive	Mountain Ridge Road	W. Lilac Road	2-Ln	10,900	1,910	B	1,770	A	140	No
Old Castle Road	Old Highway 395	Lilac Road	2-Ln	10,900	6,970	C	6,840	C	120	No
E. Vista Way	**SR-76**	**Gopher Canyon Road**	**2-Ln w/ TWLTL**	**13,500**	**15,330**	**E**	**15,120**	**E**	**210**	***Yes > 200 ADT***
E. Vista Way	**Gopher Canyon Road**	**Osborne Street**	**2-Ln w/ TWLTL**	**13,500**	**21,340**	**F**	**21,020**	**F**	**320**	***Yes > 100 ADT***
Old River Road	SR-76	Camino Del Rey	2-Ln	10,900	4,690	C	4,070	B	620	No
Champagne Boulevard	Old Castle Road	Lawrence Welk Drive	2-Ln	13,500	4,440	B	4,170	B	270	No
Pankey Road	Pala Mesa Drive	SR-76	2-Ln	10,900	70	A	70	A	0	No
Lilac Road	Couser Canyon Road	W. Lilac Road	2-Ln	8,700	1,380	A	1,150	A	230	No
Lilac Road	W. Lilac Road	Old Castle Road	2-Ln	8,700	3,720	A	2,640	A	1,080	No
Lilac Road	Old Castle Road	Anthony Road	2-Ln	10,900	10,020	D	9,010	D	1,020	No
Lilac Road	Anthony Road	Betsworth Road	2-Ln	10,900	9,330	D	8,740	D	590	No
Lilac Road	Betsworth Road	Valley Center Road	2-Ln	13,500	10,100	D	9,620	D	480	No
Valley Center Road	Woods Valley Road	Lilac Road	4/Ln w/ TWLTL/ RM	27,000	21,370	C	21,290	C	80	No
Valley Center Road	Lilac Road	Miller Road	4-Ln w/ RM	33,400	24,670	B	24,280	B	390	No
Valley Center Road	Miller Road	Cole Grade Road	4-Ln w/ RM	27,000	22,820	C	22,440	C	380	No
Valley Center Road	Cole Grade Road	Vesper Road	2-Ln	13,500	11,710	D	11,490	D	230	No
Miller Road	Misty Oak Road	Valley Center Road	2-Ln	8,000	1,480	A	1,460	A	20	No
Cole Grade Road	Fruitvale Road	Valley Center Road	2-Ln w/ TWLTL	13,500	10,780	D	10,660	D	120	No

SOURCE: Chen Ryan Associates 2013.
Notes:
Bold letter indicates unacceptable LOS E or F.
RM = Raised Median; SM = Striped Median; TWLTL = Two-Way Left-Turn Lane.

TABLE 2.3-11
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT (TRAFFIC SCENARIO E, BUILD-OUT) CONDITIONS

Intersection	Traffic Control	With Project Build-out				Existing		Change in Delay (seconds) AM/PM	Build-out Traffic to Critical Movements AM/PM	Direct Impact?
		AM Peak Hour		PM Peak Hour						
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS	Delay AM/PM (seconds)	LOS AM/PM			
1. E. Vista Way/Gopher Canyon Road	Signal	30.7	C	52.5	D	24.3/48.7	C/D	6.4/3.8	-	No
2. SR-76/Old River Road/E. Vista Way	Signal	**75.3**	**E**	54.0	D	**73.9**/52.3	**E**/D	1.4/1.7	-	No Caltrans Int. < 2 sec.
3. SR-76/Olive Hill Road/Camino Del Rey	Signal	45.2	D	**62.3**	**E**	43.6/**60.8**	D/**E**	1.6/1.5	-	No Caltrans Int. < 2 sec.
4. Old River Road/Camino Del Rey	OWSC	33.2	D	12.6	B	31.2/10.7	D/B	2.0/1.9	-	No
5. W. Lilac Road/ Camino Del Rey	OWSC	17.8	C	11.4	B	15.4/11.0	C/B	2.4/0.4	-	No
6. Old Highway 395/SR-76	Signal	44.5	D	48.6	D	43.0/42.2	D/D	1.5/6.4	-	No
7. Pankey Road/SR-76	TWSC	15.2	B	19.3	C	12.5/15.2	B/C	2.7/4.1	-	No
8. Old Highway 395/E. Dulin Road	OWSC	23.2	C	27.2	D	14.6/11.2	B /B	8.6/16.0	-	No
9. Old Highway 395/W. Lilac Road	Signal*	29.3	C	34.2	C	18.5/13.3	C/B	10.8/20.9	-	No
10. I-15 SB Ramps/Old Highway 395	OWSC	14.4	B	19.6	C	11.7/12.5	B/B	2.7/7.1	-	No
11. I-15 NB Ramps/Old Highway 395	OWSC	11.4	B	21.2	C	9.9/11.2	A/B	1.5/10.0	-	No
12. Old Highway 395/Camino Del Rey	OWSC	10.4	B	12.0	B	10.1/11.0	B/B	0.3/1.0	-	No
13. Old Highway 395/Circle R Drive	Signal*	5.0	A	4.9	A	20.4/22.5	C/C	-15.4/-17.6	-	No

TABLE 2.3-11
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT (TRAFFIC SCENARIO E, BUILD-OUT) CONDITIONS
(continued)

Intersection	Traffic Control	With Project Build-out				Existing		Change in Delay (seconds) AM/PM	Build-out Traffic to Critical Movements AM/PM	Direct Impact?
		AM Peak Hour		PM Peak Hour						
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS	Delay AM/PM (seconds)	LOS AM/PM			
14. I-15 SB Ramps/Gopher Canyon Road	Signal*	33.5	C	33.0	C	60.8/68.3	**F**/**F**	-43.3/-37.1	-	No
15. I-15 NB Ramps/Gopher Canyon Road	Signal*	36.8	D	38.5	D	27.6/577.7	D/**F**	7.7/-544.2	-	No
16. Old Highway 395/Gopher Canyon Road	Signal	17.7	B	18.9	B	16.1/8.8	B/A	1.6/10.1	-	No
17. Old Highway 395/Old Castle Road	Signal	14.2	B	17.0	B	13.9/15.7	B/B	0.3/1.3	-	No
18. W. Lilac Road/Covey Lane	TWSC	9.9	A	10.3	B	8.8/9.1	B/A	1.1/1.2	-	No
19. Mountain Ridge Road/Circle R Drive	TWSC	10.0	B	15.0	C	9.3/9.6	A/A	0.7/5.4	-	No
20. W. Lilac Road/Circle R Drive	OWSC	13.5	B	22.5	C	9.3/9.3	A/A	1.7/4.7	-	No
21. Lilac Road/W. Lilac Road	OWSC	10.4	B	11.0	B	9.6/9.9	A/A	0.8/1.1	-	No
22. Lilac Road/Old Castle Road	OWSC	11.9	B	17.9	C	11.8/17.8	B/C	0.1/0.1	-	No
23. Valley Center Rd/Lilac Road	Signal	10.9	B	31.5	C	10.5/22.6	B/C	0.4/8.9	-	No
24. Miller Road/Valley Center Road	OWSC	17.3	C	26.4	D	16.9/25.2	C/D	0.4/1.2	-	No
25. Cole Grade Road/Valley Center Road	Signal	32.7	C	35.3	D	31.1/34.9	C/C	1.6/0.4	-	No
26. Street “O”/W. Lilac Road/Main Street	RA	9.3	A	10.8	B	DNE	DNE	9.3/10.8	-	No

TABLE 2.3-11
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT (TRAFFIC SCENARIO E, BUILD-OUT) CONDITIONS
(continued)

Intersection	Traffic Control	With Project Build-out				Existing		Change in Delay (seconds) AM/PM	Build-out Traffic to Critical Movements AM/PM	Direct Impact?
		AM Peak Hour		PM Peak Hour						
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS	Delay AM/PM (seconds)	LOS AM/PM			
27. Main Street/Street "C"	RA	7.2	A	8.2	A	DNE	DNE	7.2/8.2	-	No
28. Lilac Hills Ranch Road/Main Street North	AWSC	8.5	A	8.5	A	DNE	DNE	8.5/8.5	-	No
29. Lilac Hills Ranch Road/Main Street South	AWSC	8.3	A	10.6	B	DNE	DNE	8.3/10.6	-	No
30. Street "Z"/Main Street	OWSC	8.7	A	9.0	A	DNE	DNE	8.7/9.0	-	No
31. W. Lilac Road/Street "F"/Main Street	RA	3.8	A	3.8	A	DNE	DNE	3.8/3.8	-	No

SOURCE: Chen Ryan Associates 2013.

Notes:
Bold letter indicates unacceptable LOS E of F.
AWSC = All-Way Stop Controlled.
TWSC = Two-Way Stop Controlled.
OWSC = One-Way Stop Controlled.
RA = Roundabout.
DNE = Does Not Exist.
For OWSC and TWSC intersections, the delay shown is the worst delay experienced by any of the approaches.
*Traffic signal was required as a mitigation measure in Phase C or Phase D of the project and was assumed to be carried forwarded into Phases E.

TABLE 2.3-12
TWO-LANE HIGHWAY LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT (PHASE E – BUILDOUT) CONDITIONS

2-Lane Highway	From	To	With Project Build-out			Existing		Project Build-out ADT	Direct Impact?
			LOS Threshold (LOS D)	ADT	LOS	ADT	LOS		
Old Highway 395	Pala Mesa Drive	SR-76	16,200	5,210	D or better	4,770	D or better	440	No
	SR-76	E. Dulin Road	16,200	6,230	D or better	4,720	D or better	1,520	No
	E. Dulin Road	W. Lilac Road	16,200	8,010	D or better	4,340	D or better	3,670	No
	W. Lilac Road	I-15 SB Ramps	16,200	10,580	D or better	4,450	D or better	6,140	No
	I-15 SB Ramps	I-15 NB Ramps	16,200	6,840	D or better	3,600	D or better	3,240	No
	I-15 NB Ramps	Camino Del Rey	16,200	3,190	D or better	2,430	D or better	760	No
	Camino Del Rey	Circle R Drive	16,200	6,650	D or better	5,820	D or better	830	No
	Circle R Drive	Gopher Canyon Road	16,200	12,670	D or better	10,710	D or better	1,970	No
	Gopher Canyon Road	Old Castle Road	16,200	9,050	D or better	8,660	D or better	390	No

SOURCE: Chen Ryan Associates 2013.
ADT = average daily traffic
LOS = level of service

TABLE 2.3-13
FREEWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT (PHASE E – BUILD-OUT) CONDITIONS

Freeway	Segment	ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	PHF	% of Heavy Vehicle	Volume (pc/h/ln)	V/C	LOS w/ Project	Change in V/C (compare to Existing)	Significant Impact?
I-15	Riverside County Boundary to Old Highway 395	136,550	8.4%	11,536	0.64	4	0.95	6.75%	1,994	0.849	D	0.016	No
I-15	Old Highway 395 to SR-76	136,640	7.4%	10,165	0.73	4	0.95	6.75%	2,023	0.861	D	0.017	No
I-15	SR-76 to Old Highway 395	115,320	7.8%	9,020	0.69	4	0.95	8.40%	1,695	0.721	C	0.015	No
I-15	Old Highway 395 to Gopher Canyon Road	113,700	8.1%	9,182	0.67	4	0.95	8.40%	1,681	0.716	C	0.023	No
I-15	Gopher Canyon Road to Deer Springs Road	121,580	8.1%	9,819	0.67	4	0.95	13.20%	1,839	0.783	C	0.029	No
I-15	Deer Springs Road to Centre City Parkway	121,050	8.0%	9,725	0.66	4	0.95	13.20%	1,813	0.771	C	0.026	No
I-15	Centre City Parkway to El Norte Parkway	114,210	8.0%	9,176	0.66	4	0.95	13.20%	1,710	0.728	C	0.020	No
I-15	El Norte Parkway to SR-78	129,970	7.9%	10,230	0.66	4	0.95	10.00%	1,879	0.800	C	0.018	No
I-15	SR-78 to W Valley Parkway	194,200	8.1%	15,805	0.60	5+2ML	0.95	10.00%	1,497	0.637	C	0.007	No
I-15	W Valley Parkway to Auto Parkway	180,850	8.1%	14,718	0.60	5+2ML	0.95	10.00%	1,394	0.593	B	0.006	No
I-15	Auto Parkway to W Citracado Parkway	173,800	7.8%	13,479	0.60	5+2ML	0.95	10.00%	1,269	0.540	B	0.006	No
I-15	W Citracado Parkway to Via Rancho Parkway	197,590	7.8%	15,324	0.60	5+2ML	0.95	7.00%	1,422	0.605	B	0.005	No

TABLE 2.3-13
FREEWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS PROJECT (PHASE E – BUILD-OUT) CONDITIONS
(continued)

Freeway	Segment	ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	PHF	% of Heavy Vehicle	Volume (pc/h/ln)	V/C	LOS w/ Project	Change in V/C (compare to Existing)	Significant Impact?
I-15	Via Rancho Parkway to Bernardo Drive	199,470	7.4%	14,680	0.58	5+2ML	0.95	7.00%	1,322	0.562	B	0.004	No
I-15	Bernardo Drive to Rancho Bernardo Road	202,380	7.4%	14,895	0.58	5+2ML	0.95	7.00%	1,341	0.571	B	0.004	No
I-15	Rancho Bernardo Road to Bernardo Center Drive	210,290	7.3%	15,439	0.54	5+2ML	0.95	7.00%	1,288	0.548	B	0.003	No
I-15	Bernardo Center Drive to Camino Del Norte	215,230	7.3%	15,802	0.54	5+2ML	0.95	7.00%	1,318	0.561	B	0.003	No

SOURCE: Chen Ryan Associates 2013.
Notes:
Bold letter indicates unacceptable LOS E or F.
ML = Managed Lane.

TABLE 2.3-14
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS CUMULATIVE PROJECTS PLUS PROJECT CONDITIONS

			With Cumulative Projects + Project				Existing		Cumulative Projects + Project ADT	Cumulative Impact?
Roadway	From	To	Cross-Section	LOS Threshold (LOS D)	ADT	LOS	ADT	LOS		
E. Dulin Road	Old Highway 395	SR-76	2-Ln	10,900	7,330	D	1,830	A	5,500	No
W. Lilac Road	Camino Del Rey	Camino Del Cielo	2-Ln	8,700	3,330	A	2,270	A	1,060	No
W. Lilac Road	Camino Del Cielo	Old Highway 395	2-Ln	8,700	3,530	A	2,140	A	1,390	No
W. Lilac Road	**Old Highway 395**	**Main Street**	**2-Ln**	**8,700**	**12,800**	**F**	1,150	A	11,650	***Yes > 100 ADT***
W. Lilac Road	Main Street	Street "F"	2-Ln	8,700	3,110	A	1,150	A	1,960	No
W. Lilac Road	Street "F"	Covey Lane	2-Ln	8,700	1,870	A	1,150	A	720	No
W. Lilac Road	Covey Lane	Circle R Drive	2-Ln	8,700	2,040	A	480	A	1,560	No
W. Lilac Road	Circle R Drive	Lilac Road	2-Ln	8,700	3,510	A	1,170	A	2,340	No
Camino Del Cielo	Camino Del Rey	W. Lilac Road	2-Ln	10,900	980	A	630	A	350	No
Olive Hill Road	Shamrock Road	SR-76	2-Ln	8,700	4,410	A	3,380	A	1,030	No
Camino Del Rey	SR-76	Old River Road	2-Ln	10,900	10,300	D	9,350	D	950	No
Camino Del Rey	**Old River Road**	**W. Lilac Road**	**2-Ln**	**10,900**	**11,960**	**E**	8,640	D	3,320	***Yes > 200 ADT***
Camino Del Rey	W. Lilac Road	Camino Del Cielo	2-ln w/ SM	13,500	9,550	D	6,730	C	2,820	No
Camino Del Rey	Camino Del Cielo	Old Highway 395	2-Ln	8,700	5,600	A	4,850	A	750	No
Gopher Canyon Road	**E. Vista Way**	**I-15 SB Ramps**	**2-Ln**	**10,900**	**16,270**	**F**	**15,310**	**E**	**950**	***Yes > 100 ADT***
Gopher Canyon Road	I-15 SB Ramps	I-15 NB Ramps	4-Ln	30,800	18,490	B	12,390	A	6,100	No
Gopher Canyon Road	I-15 NB Ramps	Old Highway 395	4-Ln	30,800	18,470	B	11,870	A	6,600	No
Circle R Drive	Old Highway 395	Mountain Ridge Road	2-Ln	10,900	7,450	D	4,030	B	3,420	No
Circle R Drive	Mountain Ridge Road	W. Lilac Road	2-Ln	10,900	2,010	B	1,770	A	240	No
Old Castle Road	Old Highway 395	Lilac Road	2-Ln	10,900	10,380	D	6,840	C	3,540	No
E. Vista Way	**SR-76**	**Gopher Canyon Road**	**2-Ln w/ TWLTL**	**13,500**	**20,520**	**F**	**15,120**	**E**	**5,400**	***Yes > 100 ADT***
E. Vista Way	**Gopher Canyon Road**	**Osborne Street**	**2-Ln w/ TWLTL**	**13,500**	**26,990**	**F**	**21,020**	**F**	**5,970**	***Yes > 100 ADT***
Old River Road	SR-76	Camino Del Rey	2-Ln	10,900	4,790	C	4,070	B	720	No
Champagne Blvd	Old Castle Road	Lawrence Welk Drive	2-Ln	13,500	7,770	C	4,170	B	3,600	No

TABLE 2.3-14
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS CUMULATIVE PROJECTS PLUS PROJECT CONDITIONS
(continued)

Roadway	From	To	With Cumulative Projects + Project				Existing		Cumulative Projects + Project ADT	Cumulative Impact?
			Cross-Section	LOS Threshold (LOS D)	ADT	LOS	ADT	LOS		
Pankey Road	**Pala Mesa Drive**	**SR-76**	**2-Ln**	**10,900**	**16,520**	**F**	70	A	15,540	***Yes > 100 ADT***
Lilac Road	Couser Canyon Road	W. Lilac Road	2-Ln	8,700	1,970	A	1,150	A	820	No
Lilac Road	W. Lilac Road	Old Castle Road	2-Ln	8,700	3,830	A	2,640	A	1,190	No
Lilac Road	**Old Castle Road**	**Anthony Road**	**2-Ln**	**10,900**	**11,590**	**E**	9,010	D	2,580	***Yes > 200 ADT***
Lilac Road	Anthony Road	Betsworth Road	2-Ln	10,900	10,760	D	8,740	D	2,020	No
Lilac Road	Betsworth Road	Valley Center Road	2-Ln	13,500	11,920	D	9,620	D	2,300	No
Valley Center Road	Woods Valley Road	Lilac Road	4/Ln w/ TWLTL/RM	27,000	24,280	D	21,290	C	2,990	No
Valley Center Road	Lilac Road	Miller Road	4-Ln w/ RM	33,400	27,000	C	24,280	B	2,720	No
Valley Center Road	Miller Road	Cole Grade Road	4-Ln w/ RM	27,000	24,950	D	22,440	C	2,510	No
Valley Center Road	Cole Grade Road	Vesper Road	2-Ln	13,500	12,760	D	11,490	D	1,270	No
Miller Road	Misty Oak Road	Valley Center Road	2-Ln	8,000	2,280	A	1,460	A	820	No
Cole Grade Road	**Fruitvale Road**	**Valley Center Road**	**2-Ln w/ TWLTL**	**13,500**	**16,650**	**E**	10,660	D	5,990	***Yes > 200 ADT***

SOURCE: Chen Ryan Associates 2013.
Notes:
Bold letter indicates unacceptable LOS E or F.
RM = Raised Median.
SM = Striped Median.
TWLTL = Two-Way Left-Turn Lane.

TABLE 2.3-15
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING PLUS CUMULATIVE PROJECTS PLUS PROJECT CONDITIONS

Intersection	Traffic Control	With Cumulative Projects + Project				Existing		Change in Delay (seconds) AM/PM	Cumulative Projects + Project Traffic to Critical Movements AM/PM	Cumulative Impact?
		AM Peak Hour		PM Peak Hour						
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS	Delay (seconds) AM/PM	LOS AM/PM			
1. E. Vista Way/Gopher Canyon Road	Signal	34.5	C	**93.0**	**F**	24.3/48.7	C/D	10.2/44.3	-	***Yes County Int. LOS Degrade & > 1 sec.***
2. SR-76/Old River Road/E. Vista Way	Signal	**269.1**	**F**	303.9	**F**	**73.9**/52.3	**E**/D	195.2/251.6	-	***Yes Caltrans Int. > 2 sec.***
3. SR-76/Olive Hill Road/Camino Del Rey	Signal	**231.9**	**F**	**363.0**	**F**	43.6/**60.8**	D/**E**	188.3/302.2	-	***Yes Caltrans Int. > 2 sec.***
4. Old River Road/Camino Del Rey	OWSC	**109.1**	**F**	27.3	C	23.2/12.2	D/B	85.9/15.1	AM: NBL +3	No Int. County < 5 trips
5. W. Lilac Road/Camino Del Rey	OWSC	21.9	C	15.4	B	15.4/11.0	C/B	6.5/4.4	-	No
6. Old Highway 395/SR-76	Signal	**219.7**	**F**	**214.6**	**F**	43.0/42.2	D/D	176.7/172.4	-	***Yes Caltrans Int. > 2 sec.***
7. Pankey Road/SR-76	TWSC	**OVFL**	**F**	**OVFL**	**F**	12.5/15.2	B/C	OVFL/OVFL	-	***Yes Caltrans Int. > 2 sec.***
8. Old Highway 395/E. Dulin Road	OWSC	**364.5**	**F**	**179.1**	**F**	14.6/11.2	B /B	349.9/167.9	AM : WBL +89 PM : WBL +180	***Yes County Int. > 5 trips***
9. Old Highway 395/W. Lilac Road	TWSC	**OVFL**	**F**	**OVFL**	**F**	18.5/13.3	C/B	OVFL/OVFL	AM : WBL +306 PM : WBL +233	***Yes County Int. > 5 trips***
10. I-15 SB Ramps/Old Highway 395	OWSC	**41.3**	**E**	**213.8**	**F**	10.6/ 12.1	B/B	30.7/201.7	-	***Yes Caltrans Int. > 2 sec.***
11. I-15 NB Ramps/Old Highway 395	**OWSC**	16.7	C	**64.3**	**F**	9.9/11.2	A/B	6.8/53.1	-	***Yes Caltrans Int. > 2 sec.***
12. Old Highway 395/Camino Del Rey	OWSC	14.4	B	19.4	C	10.1/11.0	B/B	4.3/8.4	-	No
13. Old Highway 395/Circle R Drive	**OWSC**	**347.6**	**F**	**529.5**	**F**	20.4/22.5	C/C	327.2/507.0	AM : WBL +156 PM : WBL +107	***Yes County Int. > 5 trips***
14. I-15 SB Ramps/Gopher Canyon Road	**OWSC**	**2451.2**	**F**	**4522.3**	**F**	**468.2/ 173.0**	**F/F**	**1983.0/4349.3**	-	***Yes Caltrans Int. > 2 sec.***

TABLE 2.3-15
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING PLUS CUMULATIVE PROJECTS PLUS PROJECT CONDITIONS
(continued)

Intersection	Traffic Control	With Cumulative Projects + Project				Existing		Change in Delay (seconds) AM/PM	Cumulative Projects + Project Traffic to Critical Movements AM/PM	Cumulative Impact?
		AM Peak Hour		PM Peak Hour						
		Average Delay (seconds)	LOS	Average Delay (seconds)	LOS	Delay (seconds) AM/PM	LOS AM/PM			
15. I-15 NB Ramps/Gopher Canyon Road	**OWSC**	**428.5**	**F**	**8370.3**	**F**	30.5/ **1945.4**	D/**F**	398.0/**6424.9**	-	***Yes Caltrans Int. > 2 sec.***
16. Old Highway 395/Gopher Canyon Road	Signal	21.4	C	25.9	C	16.1/8.8	B/A	5.3/17.1	-	No
17. Old Highway 395/Old Castle Road	Signal	14.0	B	17.9	B	13.9/15.7	B/B	0.1/2.2	-	No
18. W. Lilac Road/Covey Lane	TWSC	10.9	B	10.9	B	8.8/9.1	B/A	2.1/1.8	-	No
19. Mountain Ridge Road/Circle R Drive	TWSC	11.3	B	14.5	B	9.3/9.6	A/A	2.0/4.9	-	No
20. W. Lilac Road/Circle R Drive	OWSC	13.1	B	11.5	B	9.3/9.3	A/A	3.8/2.2	-	No
21. Lilac Road/W. Lilac Road	OWSC	11.1	B	12.0	B	9.6/9.9	A/A	1.5/2.1	-	No
22. Lilac Road/Old Castle Road	OWSC	17.0	B	32.6	D	11.8/17.8	B/C	5.2/14.8	-	No
23. Valley Center Rd/Lilac Road	Signal	38.9	D	52.7	D	10.5/22.6	B/C	28.4/30.1	-	No
24. Miller Road/Valley Center Road	OWSC	23.3	C	**103.0**	**F**	16.9/25.2	C/D	6.4/77.8	PM : SB +29	***Yes County Int. > 5 trips***
25. Cole Grade Road/Valley Center Road	Signal	36.6	D	48.8	D	31.1/34.9	C/C	5.5/13.9	-	No
26. Street "O"/W. Lilac Road/Main Street	RA	10.3	B	14.0	B	DNE	DNE	10.3/14.0	-	No
27. Main Street/Street "C"	RA	7.2	A	8.2	A	DNE	DNE	7.2/8.2	-	No
28. Lilac Hills Ranch Road/Main Street North	AWSC	8.5	A	8.5	A	DNE	DNE	8.5/8.5	-	No
29. Lilac Hills Ranch Road/Main Street South	AWSC	8.3	A	9.7	A	DNE	DNE	8.3/9.7	-	No
30. Street "Z"/Main Street	OWSC	8.7	A	9.0	A	DNE	DNE	8.7/9.0	-	No
31. W. Lilac Road/Street "F"/Main Street	RA	4.4	A	4.5	A	DNE	DNE	4.4/4.5	-	No

SOURCE: Chen Ryan Associates May 2013.
Notes:
Bold letter indicates unacceptable LOS E of F.
AWSC = All-Way Stop Controlled; TWSC = Two-Way Stop Controlled; OWSC = One-Way Stop Controlled; RA = Roundabout.
DNE = Does Not Exist.
For OWSC and TWSC intersections, the delay shown is the worst delay experienced by any of the approaches.

TABLE 2.3-16
TWO-LANE HIGHWAY LEVEL OF SERVICE RESULTS
EXISTING PLUS CUMULATIVE PROJECTS PLUS PROJECT CONDITIONS

2-Lane Highway	From	To	With Project Build-out			Existing		Project Build-out ADT	Direct Impact?
			LOS Threshold (LOS D)	ADT	LOS	ADT	LOS		
Old Highway 395	Pala Mesa Drive	SR-76	16,200	11,230	D or better	4,770	D or better	6,460	No
	SR-76	E. Dulin Road	16,200	9,890	D or better	4,720	D or better	5,170	No
	E. Dulin Road	W. Lilac Road	16,200	12,780	D or better	4,340	D or better	8,440	No
	W. Lilac Road	I-15 SB Ramps	16,200	13,310	D or better	4,450	D or better	8,860	No
	I-15 SB Ramps	I-15 NB Ramps	16,200	10,490	D or better	3,600	D or better	6,890	No
	I-15 NB Ramps	Camino Del Rey	16,200	6,370	D or better	2,430	D or better	3,940	No
	Camino Del Rey	Circle R Drive	16,200	9,060	D or better	5,820	D or better	3,240	No
	Circle R Drive	Gopher Canyon Road	16,200	15,690	D or better	10,710	D or better	4,980	No
	Gopher Canyon Road	Old Castle Road	16,200	10,040	D or better	8,660	D or better	1,380	No

SOURCE: Chen Ryan Associates 2013.
ADT = average daily traffic
LOS = level of service

TABLE 2.3-17
FREEWAY SEGMENT LEVEL OF SERVICE RESULTS
EXISTING PLUS CUMULATIVE PROJECTS PLUS PROJECT CONDITIONS

Freeway	Segment	ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	PHF	% of Heavy Vehicle	Volume (pc/h/ln)	V/C	LOS w/ Project	Change in V/C (compare to Existing)	Cumulative Impact?
I-15	**Riverside County Boundary to Old Highway 395**	**202,880**	**8.4%**	**17,140**	**0.64**	**4**	**0.95**	**6.75%**	**2,963**	**1.261**	**F**	**0.428**	***Yes > 0.01***
I-15	**Old Highway 395 to SR-76**	**238,620**	**7.4%**	**17,751**	**0.73**	**4**	**0.95**	**6.75%**	**3,532**	**1.503**	**F**	**0.659**	***Yes > 0.01***
I-15	**SR-76 to Old Highway 395**	**169,420**	**7.8%**	**13,252**	**0.69**	**4**	**0.95**	**8.40%**	**2,491**	**1.060**	**F**	**0.353**	***Yes > 0.01***
I-15	**Old Highway 395 to Gopher Canyon Road**	**167,170**	**8.1%**	**13,501**	**0.67**	**4**	**0.95**	**8.40%**	**2,472**	**1.052**	**F**	**0.360**	***Yes > 0.01***
I-15	**Gopher Canyon Road to Deer Springs Road**	**166,620**	**8.1%**	**13,456**	**0.67**	**4**	**0.95**	**13.20%**	**2,521**	**1.073**	**F**	**0.319**	***Yes > 0.01***
I-15	**Deer Springs Road to Centre City Parkway**	**166,030**	**8.0%**	**13,339**	**0.66**	**4**	**0.95**	**13.20%**	**2,486**	**1.058**	**F**	**0.312**	***Yes > 0.01***
I-15	**Centre City Parkway to El Norte Parkway**	**157,230**	**8.0%**	**12,632**	**0.66**	**4**	**0.95**	**13.20%**	**2,354**	**1.002**	**F**	**0.295**	***Yes > 0.01***
I-15	**El Norte Parkway to SR-78**	**171,220**	**7.9%**	**13,477**	**0.66**	**4**	**0.95**	**10.00%**	**2,476**	**1.053**	**F**	**0.272**	***Yes > 0.01***
I-15	SR-78 to W Valley Parkway	216,870	8.1%	17,650	0.60	5+2ML	0.95	10.00%	1,672	0.711	C	0.082	No
I-15	W Valley Parkway to Auto Parkway	199,490	8.1%	16,235	0.60	5+2ML	0.95	10.00%	1,538	0.654	C	0.067	No
I-15	Auto Parkway to W Citracado Parkway	191,330	7.8%	14,839	0.60	5+2ML	0.95	10.00%	1,397	0.595	B	0.060	No
I-15	W Citracado Parkway to Via Rancho Parkway	208,340	7.8%	16,158	0.60	5+2ML	0.95	7.00%	1,500	0.638	C	0.038	No
I-15	Via Rancho Parkway to Bernardo Drive	238,480	7.4%	17,551	0.58	5+2ML	0.95	7.00%	1,580	0.672	C	0.114	No
I-15	Bernardo Drive to Rancho Bernardo Road	213,610	7.4%	15,721	0.58	5+2ML	0.95	7.00%	1,415	0.602	B	0.036	No
I-15	Rancho Bernardo Road to Bernardo Center Drive	215,140	7.3%	15,795	0.54	5+2ML	0.95	7.00%	1,318	0.561	B	0.016	No
I-15	Bernardo Center Drive to Camino Del Norte	216,170	7.3%	15,871	0.54	5+2ML	0.95	7.00%	1,324	0.563	B	0.006	No

SOURCE: Chen Ryan Associates 2013.
Notes:
Bold letter indicates unacceptable LOS E or F.
ML = Managed Lane
pc/h/ln = passenger-cars per hour per lane
V/C = volume/capacity;
LOS = level of service

TABLE 2.3-18
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
BUILD-OUT UNDER THE EXISTING GENERAL PLAN WITHOUT THE PROJECT (without Road 3)

Roadway	From	To	Classification	LOS Threshold (LOS D)	ADT	LOS
E. Dulin Road	Old Highway 395	SR-76	2.1E	10,900	5,850	C
W. Lilac Road	Camino Del Rey	Camino Del Cielo	2.2E	10,900	4,450	C
W. Lilac Road	Camino Del Cielo	Old Highway 395	2.2E	10,900	5,900	C
W. Lilac Road	Old Highway 395	Main Street	2.2C	13,500	1,870	A
W. Lilac Road	Main Street	Street "F"	2.2C	13,500	4,340	B
W. Lilac Road	Street "F"	Running Creek Road	2.2C	13,500	5,030	B
W. Lilac Road	Running Creek Road	Covey Lane	2.2F	8,700	2,730	A
W. Lilac Road	Covey Lane	Circle R Drive	2.2F	8,700	2,730	A
W. Lilac Road	Circle R Drive	Lilac Road	2.2F	8,700	920	A
Camino Del Cielo	Camino Del Rey	W. Lilac Road	2.2E	10,900	4,890	C
Olive Hill Road	Shamrock Road	SR-76	2.2E	10,900	8,390	D
Camino Del Rey	SR-76	Old River Road	4.2B	25,000	18,280	B
Camino Del Rey	Old River Road	W. Lilac Road	4.2B	25,000	12,850	A
Camino Del Rey	W. Lilac Road	Camino Del Cielo	4.2B	25,000	8,080	A
Camino Del Rey	Camino Del Cielo	Old Highway 395	2.2C	13,500	8,180	C
Gopher Canyon Road	E. Vista Way	I-15 SB Ramps	4.1B	30,800	19,300	B
Gopher Canyon Road	I-15 SB Ramps	I-15 NB Ramps	4.1B	30,800	18,610	B
Gopher Canyon Road	I-15 NB Ramps	Old Highway 395	4.1B	30,800	18,560	B
Circle R Drive	Old Highway 395	Mountain Ridge Road	2.2E	10,900	5,460	C
Circle R Drive	Mountain Ridge Road	W. Lilac Road	2.2E	10,900	1,380	A
Old Castle Road	Old Highway 395	Lilac Road	2.2D	13,500	8,510	C
E. Vista Way	SR-76	Gopher Canyon Road	4.1A	33,400	20,680	B
E. Vista Way	Gopher Canyon Road	Osborne Street	4.1A	33,400	27,250	C
Old River Road	SR-76	Camino Del Rey	2.2C	13,500	8,370	C
Old Highway 395	Pala Mesa Drive	SR-76	4.2B	25,000	17,200	B
Old Highway 395	**SR-76**	**E. Dulin Road**	**2.1D**	**13,500**	**13,960**	**E accepted at LOS E/F**
Old Highway 395	E. Dulin Road	W. Lilac Road	2.1D	13,500	13,310	D
Old Highway 395	W. Lilac Road	I-15 SB Ramps	4.2B	25,000	17,680	B
Old Highway 395	I-15 SB Ramps	I-15 NB Ramps	4.2B	25,000	15,730	A
Old Highway 395	I-15 NB Ramps	Camino Del Rey	4.1B	30,800	15,250	B
Old Highway 395	Camino Del Rey	Circle R Drive	4.1B	30,800	22,540	B
Old Highway 395	Circle R Drive	Gopher Canyon Road	4.1B	30,800	27,180	C
Old Highway 395	Gopher Canyon Road	Old Castle Road	4.1B	30,800	27,030	C
Champagne Boulevard	Old Castle Road	Lawrence Welk Drive	4.1B	30,800	19,450	B
Pankey Road	Pala Mesa Drive	SR-76	2.1A	15,000	9,460	A

TABLE 2.3-18
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
BUILD-OUT UNDER THE EXISTING GENERAL PLAN WITHOUT THE PROJECT (without Road 3)

Roadway	From	To	Classification	LOS Threshold (LOS D)	ADT	LOS
Lilac Road	Couser Canyon Road	W. Lilac Road	2.2E	10,900	4,280	C
Lilac Road	W. Lilac Road	Old Castle Road	2.2E	10,900	7,650	D
Lilac Road	Old Castle Road	Anthony Road	2.1C	13,500	12,570	D
Lilac Road	Anthony Road	New Road 19 (east of Betsworth Road)	4.2B	25,000	23,340	D
Lilac Road	**New Road 19 (east of Betsworth Road)**	**Valley Center Road**	**4.2B**	**25,000**	**40,280**	**F accepted at LOS E/F**
Valley Center Road	Woods Valley Road	Lilac Road	4.2A	27,000	23,160	C
Valley Center Road	**Lilac Road**	**Miller Road**	**4.1A**	**33,400**	**34,720**	**E**
Valley Center Road	**Miller Road**	**Indian Creek Road**	**4.2A**	**27,000**	**35,340**	**F accepted at LOS E/F**
Valley Center Road	Indian Creek Road	Cole Grade Road	4.2A	27,000	25,690	D
Valley Center Road	Cole Grade Road	Vesper Road	4.2A	27,000	16,370	A
Miller Road	Misty Oak Road	Valley Center Road	2.3B	8,000	2,490	A
Cole Grade Road	Fruitvale Road	Valley Center Road	4.2A	27,000	20,080	B

SOURCE: Chen Ryan Associates 2013.
Notes:
Bold letter indicates unacceptable LOS E or F.
ADT = average daily traffic
LOS = level of service

TABLE 2.3-19
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
BUILD-OUT UNDER THE EXISTING GENERAL PLAN WITH THE PROJECT (without Road 3)

			Horizon Year with Project				Horizon Year w/o Project			
Roadway	From	To	Classification	LOS Threshold (LOS D)	ADT	LOS	ADT	LOS	Project ADT	Project Impact?
E. Dulin Road	Old Highway 395	SR-76	2.1E	10,900	9,180	D	5,850	C	3,330	No
W. Lilac Road	Camino Del Rey	Camino Del Cielo	2.2E	10,900	5,430	C	4,450	C	980	No
W. Lilac Road	Camino Del Cielo	Old Highway 395	2.2E	10,900	7,100	C	5,900	C	1,200	No
W. Lilac Road	Old Highway 395	Main Street	2.2C	13,500	13,370	D	1,870	A	11,500	No
W. Lilac Road	Main Street	Street "F"	2.2F*	8,700	6,160	B	4,340	B	1,820	No
W. Lilac Road	Street "F"	Running Creek Road	2.2F*	8,700	5,700	A	5,030	B	670	No
W. Lilac Road	Running Creek Road	Covey Lane	2.2F	8,700	3,400	A	2,730	A	670	No
W. Lilac Road	Covey Lane	Circle R Drive	2.2F	8,700	3,810	A	2,730	A	1,080	No
W. Lilac Road	Circle R Drive	Lilac Road	2.2F	8,700	2,150	A	920	A	1,230	No
Camino Del Cielo	Camino Del Rey	W. Lilac Road	2.2E	10,900	4,920	C	4,890	C	30	No
Olive Hill Road	Shamrock Road	SR-76	2.2E	10,900	8,420	D	8,390	D	30	No
Camino Del Rey	SR-76	Old River Road	4.2B	25,000	18,750	B	18,280	B	470	No
Camino Del Rey	Old River Road	W. Lilac Road	4.2B	25,000	13,850	A	12,850	A	1,000	No
Camino Del Rey	W. Lilac Road	Camino Del Cielo	4.2B	25,000	8,140	A	8,080	A	60	No
Camino Del Rey	Camino Del Cielo	Old Highway 395	2.2C	13,500	8,260	C	8,180	C	80	No
Gopher Canyon Rd	E. Vista Way	I-15 SB Ramps	4.1B	30,800	19,910	B	19,300	B	610	No
Gopher Canyon Rd	I-15 SB Ramps	I-15 NB Ramps	4.1B	30,800	19,410	B	18,610	B	800	No
Gopher Canyon Rd	I-15 NB Ramps	Old Highway 395	4.1B	30,800	19,560	B	18,560	B	1,000	No
Circle R Drive	Old Highway 395	Mountain Ridge Road	2.2E	10,900	7,290	D	5,460	C	1,830	No
Circle R Drive	Mountain Ridge Road	W. Lilac Road	2.2E	10,900	1,590	A	1,380	A	210	No
Old Castle Road	Old Highway 395	Lilac Road	2.2D	13,500	8,600	C	8,510	C	90	No
E. Vista Way	SR-76	Gopher Canyon Road	4.1A	33,400	20,880	B	20,680	B	200	No
E. Vista Way	Gopher Canyon Road	Osborne Street	4.1A	33,400	27,570	C	27,250	C	320	No
Old River Road	SR-76	Camino Del Rey	2.2C	13,500	8,900	C	8,370	C	530	No
Old Highway 395	Pala Mesa Drive	SR-76	4.2B	25,000	18,000	B	17,200	B	800	No
Old Highway 395	**SR-76**	**E. Dulin Road**	**2.1D**	**13,500**	**15,280**	**E accepted at LOS E/F**	**13,960**	**E accepted at LOS E/F**	**1,320**	***Yes > 200 ADT***
Old Highway 395	**E. Dulin Road**	**W. Lilac Road**	**2.1D**	**13,500**	**17,980**	**E**	13,310	D	4,670	***Yes > 200 ADT***

TABLE 2.3-19
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
BUILD-OUT UNDER THE EXISTING GENERAL PLAN WITH THE PROJECT (without Road 3)
(continued)

Roadway	From	To	Horizon Year with Project				Horizon Year w/o Project		Project ADT	Project Impact?
			Classification	LOS Threshold (LOS D)	ADT	LOS	ADT	LOS		
Old Highway 395	W. Lilac Road	I-15 SB Ramps	4.2B	25,000	23,270	D	17,680	B	5,590	No
Old Highway 395	I-15 SB Ramps	I-15 NB Ramps	4.2B	25,000	19,200	B	15,730	A	3,470	No
Old Highway 395	I-15 NB Ramps	Camino Del Rey	4.1B	30,800	16,660	B	15,250	B	1,410	No
Old Highway 395	Camino Del Rey	Circle R Drive	4.1B	30,800	24,010	C	22,540	B	1,470	No
Old Highway 395	Circle R Drive	Gopher Canyon Road	4.1B	30,800	29,260	D	27,180	C	2,080	No
Old Highway 395	Gopher Canyon Road	Old Castle Road	4.1B	30,800	28,110	D	27,030	C	1,080	No
Champagne Boulevard	Old Castle Road	Lawrence Welk Drive	4.1B	30,800	20,430	B	19,450	B	980	No
Pankey Road	Pala Mesa Drive	SR-76	2.1A	15,000	10,380	B	9,460	A	920	No
Lilac Road	Couser Canyon Road	W. Lilac Road	2.2E	10,900	4,690	C	4,280	C	410	No
Lilac Road	W. Lilac Road	Old Castle Road	2.2E	10,900	8,420	D	7,650	D	770	No
Lilac Road	Old Castle Road	Anthony Road	2.1C	13,500	13,280	D	12,570	D	710	No
Lilac Road	Anthony Road	New Road 19 (east of Betsworth Road)	4.2B	25,000	23,760	D	23,340	D	420	No
Lilac Road	**New Road 19 (east of Betsworth Road)**	**Valley Center Road**	**4.2B**	**25,000**	**40,570**	**F accepted at LOS E/F**	**40,280**	**F accepted at LOS E/F**	**290**	***Yes > 200 ADT***
Valley Center Road	Woods Valley Road	Lilac Road	4.2A	27,000	23,180	C	23,160	C	20	No
Valley Center Road	Lilac Road	Miller Road	4.1A	33,400	34,990	**E**	34,720	**E**	270	No < 400ADT
Valley Center Road	**Miller Road**	**Indian Creek Road**	**4.2A**	**27,000**	**35,550**	**F accepted at LOS E/F**	**35,340**	**F accepted at LOS E/F**	**210**	***Yes > 200 ADT***
Valley Center Road	Indian Creek Road	Cole Grade Road	4.2A	27,000	25,900	D	25,690	D	210	No
Valley Center Road	Cole Grade Road	Vesper Road	4.2A	27,000	16,670	A	16,580	A	90	No
Miller Road	Misty Oak Road	Valley Center Road	2.3B	8,000	2,520	A	2,490	A	30	No
Cole Grade Road	Fruitvale Road	Valley Center Road	4.2A	27,000	20,170	B	20,080	B	90	No

SOURCE: Chen Ryan Associates 2013.
Notes:
Bold letter indicates unacceptable LOS E or F.
*Proposed downgrade from 2.2C to 2.2F.
ADT = average daily traffic
LOS = level of service

TABLE 2.3-20
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
BUILD-OUT UNDER THE EXISTING GENERAL PLAN WITHOUT THE PROJECT (with Road 3)

Roadway	From	To	Classification	LOS Threshold (LOS D)	ADT	LOS
E. Dulin Road	Old Highway 395	SR-76	2.1E	10,900	5,810	C
W. Lilac Road	Camino Del Rey	Camino Del Cielo	2.2E	10,900	4,960	C
W. Lilac Road	Camino Del Cielo	Old Highway 395	2.2E	10,900	6,300	C
W. Lilac Road	Old Highway 395	Main Street	2.2C	13,500	8,110	C
W. Lilac Road	Main Street	Street "F"	2.2C	13,500	10,630	C
W. Lilac Road	Street "F"	Road 3	2.2C	13,500	10,660	C
W. Lilac Road	Road 3	Covey Lane	2.2F	8,700	1,130	A
W. Lilac Road	Covey Lane	Circle R Drive	2.2F	8,700	1,130	A
W. Lilac Road	Circle R Drive	Lilac Road	2.2F	8,700	1,740	A
Camino Del Cielo	Camino Del Rey	W. Lilac Road	2.2E	10,900	4,890	C
Olive Hill Road	Shamrock Road	SR-76	2.2E	10,900	9,190	D
Camino Del Rey	SR-76	Old River Road	4.2B	25,000	18,780	B
Camino Del Rey	Old River Road	W. Lilac Road	4.2B	25,000	13,250	A
Camino Del Rey	W. Lilac Road	Camino Del Cielo	4.2B	25,000	8,080	A
Camino Del Rey	Camino Del Cielo	Old Highway 395	2.2C	13,500	8,080	C
Gopher Canyon Road	E. Vista Way	I-15 SB Ramps	4.1B	30,800	19,850	B
Gopher Canyon Road	I-15 SB Ramps	I-15 NB Ramps	4.1B	30,800	19,300	B
Gopher Canyon Road	I-15 NB Ramps	Old Highway 395	4.1B	30,800	19,350	B
Circle R Drive	Old Highway 395	Mountain Ridge Road	2.2E	10,900	6,640	C
Circle R Drive	Mountain Ridge Road	W. Lilac Road	2.2E	10,900	2,640	B
Old Castle Road	Old Highway 395	Lilac Road	2.2D	13,500	7,780	C
E. Vista Way	SR-76	Gopher Canyon Road	4.1A	33,400	20,750	B
E. Vista Way	Gopher Canyon Road	Osborne Street	4.1A	33,400	27,520	C
Old River Road	SR-76	Camino Del Rey	2.2C	13,500	8,370	C
Old Highway 395	Pala Mesa Drive	SR-76	4.2B	25,000	15,730	A
Old Highway 395	**SR-76**	**E. Dulin Road**	**2.1D**	**13,500**	**14,580**	**E accepted at LOS E/F**
Old Highway 395	**E. Dulin Road**	**W. Lilac Road**	**2.1D**	**13,500**	**13,790**	**E accepted at LOS E/F**
Old Highway 395	W. Lilac Road	I-15 SB Ramps	4.2B	25,000	19,520	B
Old Highway 395	I-15 SB Ramps	I-15 NB Ramps	4.2B	25,000	16,250	A
Old Highway 395	I-15 NB Ramps	Camino Del Rey	4.1B	30,800	13,960	B
Old Highway 395	Camino Del Rey	Circle R Drive	4.1B	30,800	20,540	B
Old Highway 395	Circle R Drive	Gopher Canyon Road	4.1B	30,800	27,290	C
Old Highway 395	Gopher Canyon Road	Old Castle Road	4.1B	30,800	24,740	C

TABLE 2.3-20
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
BUILD-OUT UNDER THE EXISTING GENERAL PLAN WITHOUT THE PROJECT (with Road 3)
(continued)

Roadway	From	To	Classification	LOS Threshold (LOS D)	ADT	LOS
Champagne Boulevard	Old Castle Road	Lawrence Welk Drive	4.1B	30,800	19,360	B
Pankey Road	Pala Mesa Drive	SR-76	2.1A	15,000	9,360	C
Lilac Road	Couser Canyon Road	W. Lilac Road	2.2E	10,900	7,750	D
Lilac Road	W. Lilac Road	Old Castle Road	2.2E	10,900	8,130	D
Lilac Road	Old Castle Road	Anthony Road	2.1C	13,500	11,850	D
Lilac Road	Anthony Road	New Road 19 (east of Betsworth Road)	4.2B	25,000	19,140	B
Lilac Road	**New Road 19 (east of Betsworth Road)**	**Valley Center Road**	**4.2B**	**25,000**	**33,880**	**F accepted at LOS E/F**
Valley Center Road	Woods Valley Road	Lilac Road	4.2A	27,000	23,200	C
Valley Center Road	Lilac Road	Miller Road	4.1A	33,400	32,090	D
Valley Center Road	**Miller Road**	**Indian Creek Road**	**4.2A**	**27,000**	**32,990**	**F accepted at LOS E/F**
Valley Center Road	Indian Creek Road	Cole Grade Road	4.2A	27,000	23,790	C
Valley Center Road	Cole Grade Road	Vesper Road	4.2A	27,000	16,900	A
Miller Road	Misty Oak Road	Valley Center Road	2.3B	8,000	2,400	A
Cole Grade Road	Fruitvale Road	Valley Center Road	4.2A	27,000	17,990	A

SOURCE: Chen Ryan Associates 2013.
Notes:
Bold letter indicates unacceptable LOS E or F.
LOS = level of service
ADT = average daily traffic

TABLE 2.3-21
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
BUILD-OUT UNDER THE EXISTING GENERAL PLAN WITH THE PROJECT (with Road 3)

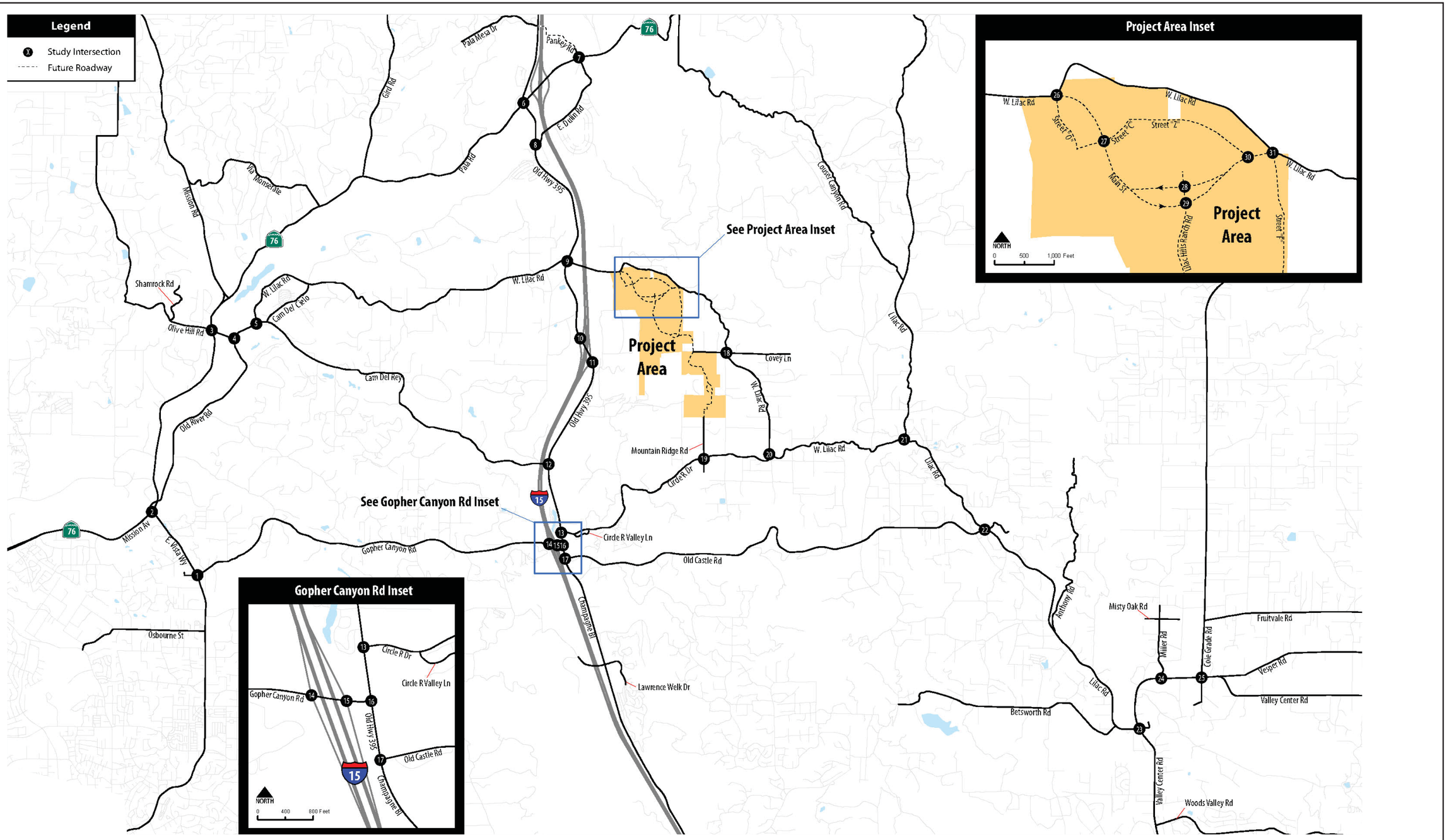
			Horizon Year with Project				Horizon Year w/o Project			
Roadway	From	To	Classification	LOS Threshold (LOS D)	ADT	LOS	ADT	LOS	Project ADT	Project Impact?
E. Dulin Road	Old Highway 395	SR-76	2.1E	10,900	8,920	D	5,810	C	3,110	No
W. Lilac Road	Camino Del Rey	Camino Del Cielo	2.2E	10,900	5,910	C	4,960	C	950	No
W. Lilac Road	Camino Del Cielo	Old Highway 395	2.2E	10,900	7,470	D	6,300	C	1,170	No
W. Lilac Road	**Old Highway 395**	**Main Street**	**2.2C**	**13,500**	**18,990**	**E**	8,110	C	10,880	***Yes > 200 ADT***
W. Lilac Road	**Main Street**	**Street "F"**	**2.2F***	**8,700**	**12,080**	**F**	10,630	D	1,450	***Yes > 100 ADT***
W. Lilac Road	**Street "F"**	**Road 3**	**2.2F***	**8,700**	**12,010**	**F**	10,660	D	1,350	***Yes > 100 ADT***
W. Lilac Road	Road 3	Covey Lane	2.2F	8,700	1,680	A	1,130	A	550	No
W. Lilac Road	Covey Lane	Circle R Drive	2.2F	8,700	1,420	A	1,130	A	290	No
W. Lilac Road	Circle R Drive	Lilac Road	2.2F	8,700	1,980	A	1,740	A	240	No
Camino Del Cielo	Camino Del Rey	W. Lilac Road	2.2E	10,900	4,920	C	4,890	C	30	No
Olive Hill Road	Shamrock Road	SR-76	2.2E	10,900	9,220	D	9,190	D	30	No
Camino Del Rey	SR-76	Old River Road	4.2B	25,000	19,230	B	18,780	B	450	No
Camino Del Rey	Old River Road	W. Lilac Road	4.2B	25,000	14,230	A	13,250	A	980	No
Camino Del Rey	W. Lilac Road	Camino Del Cielo	4.2B	25,000	8,140	A	8,080	A	60	No
Camino Del Rey	Camino Del Cielo	Old Highway 395	2.2C	13,500	8,160	C	8,080	C	80	No
Gopher Canyon Road	E. Vista Way	I-15 SB Ramps	4.1B	30,800	20,440	B	19,850	B	590	No
Gopher Canyon Road	I-15 SB Ramps	I-15 NB Ramps	4.1B	30,800	20,090	B	19,300	B	790	No
Gopher Canyon Road	I-15 NB Ramps	Old Highway 395	4.1B	30,800	20,330	B	19,350	B	980	No
Circle R Drive	Old Highway 395	Mountain Ridge Road	2.2E	10,900	8,440	D	6,640	C	1,800	No
Circle R Drive	Mountain Ridge Road	W. Lilac Road	2.2E	10,900	2,880	B	2,640	B	240	No
Old Castle Road	Old Highway 395	Lilac Road	2.2D	13,500	7,870	C	7,780	C	90	No
E. Vista Way	SR-76	Gopher Canyon Road	4.1A	33,400	20,950	B	20,750	B	200	No
E. Vista Way	Gopher Canyon Road	Osborne Street	4.1A	33,400	27,840	C	27,520	C	320	No
Old River Road	SR-76	Camino Del Rey	2.2C	13,500	8,900	C	8,370	C	530	No
Old Highway 395	Pala Mesa Drive	SR-76	4.2B	25,000	16,400	A	15,730	A	670	No

TABLE 2.3-21
ROADWAY SEGMENT LEVEL OF SERVICE RESULTS
BUILD-OUT UNDER THE EXISTING GENERAL PLAN WITH THE PROJECT (with Road 3)

Roadway	From	To	Horizon Year with Project				Horizon Year w/o Project		Project ADT	Project Impact?
Old Highway 395	**SR-76**	**E. Dulin Road**	**2.1D**	**13,500**	**15,820**	**E accepted at LOS E/F**	**14,580**	**E accepted at LOS E/F**	**1,240**	***Yes > 200 ADT***
Old Highway 395	**E. Dulin Road**	**W. Lilac Road**	**2.1D**	**13,500**	**18,150**	**E**	**13,790**	**E**	**4,360**	***Yes > 200 ADT***
Old Highway 395	W. Lilac Road	I-15 SB Ramps	4.2B	25,000	24,940	D	19,520	B	5,420	No
Old Highway 395	I-15 SB Ramps	I-15 NB Ramps	4.2B	25,000	19,600	B	16,250	A	3,350	No
Old Highway 395	I-15 NB Ramps	Camino Del Rey	4.1B	30,800	15,310	B	13,960	B	1,350	No
Old Highway 395	Camino Del Rey	Circle R Drive	4.1B	30,800	21,950	B	20,540	B	1,410	No
Old Highway 395	Circle R Drive	Gopher Canyon Road	4.1B	30,800	29,310	D	27,290	C	2,020	No
Old Highway 395	Gopher Canyon Road	Old Castle Road	4.1B	30,800	25,770	C	24,740	C	1,030	No
Champagne Boulevard	Old Castle Road	Lawrence Welk Drive	4.1B	30,800	20,300	B	19,360	B	940	No
Pankey Road	Pala Mesa Drive	SR-76	2.1A	15,000	10,300	B	9,360	C	940	No
Lilac Road	Couser Canyon Road	W. Lilac Road	2.2E	10,900	8,360	D	7,750	D	610	No
Lilac Road	W. Lilac Road	Old Castle Road	2.2E	10,900	8,800	D	8,130	D	670	No
Lilac Road	Old Castle Road	Anthony Road	2.1C	13,500	12,430	D	11,850	D	580	No
Lilac Road	Anthony Road	New Road 19 (east of Betsworth Road)	4.2B	25,000	19,380	B	19,140	B	240	No
Lilac Road	New Road 19 (east of Betsworth Road)	Valley Center Road	4.2B	25,000	33,940	**F** accepted at LOS E/F	33,880	**F** accepted at LOS E/F	60	No < 200 ADT
Valley Center Road	Woods Valley Road	Lilac Road	4.2A	27,000	23,220	C	23,200	C	20	No
Valley Center Road	Lilac Road	Miller Road	4.1A	33,400	32,140	D	32,090	D	50	No
Valley Center Road	Miller Road	Indian Creek Road	4.2A	27,000	33,020	**F** accepted at LOS E/F	32,990	**F** accepted at LOS E/F	30	No < 200 ADT
Valley Center Road	Indian Creek Road	Cole Grade Road	4.2A	27,000	23,820	C	23,790	C	30	No
Valley Center Road	Cole Grade Road	Vesper Road	4.2A	27,000	16,900	A	16,900	A	0	No
Miller Road	Misty Oak Road	Valley Center Road	2.3B	8,000	2,420	A	2,400	A	20	No
Cole Grade Road	Fruitvale Road	Valley Center Road	4.2A	27,000	18,020	B	17,990	A	30	No

SOURCE: Chen Ryan Associates 2013.
Notes:
Bold letter indicates unacceptable LOS E or F.
*Proposed downgrade from 2.2C to 2.2F.

Map Source: Chen Ryan, 2013



Not to Scale

RECON

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FIGURE 2.3-1
Transportation and Traffic Study Area

Map Source: Chen Ryan, 2013

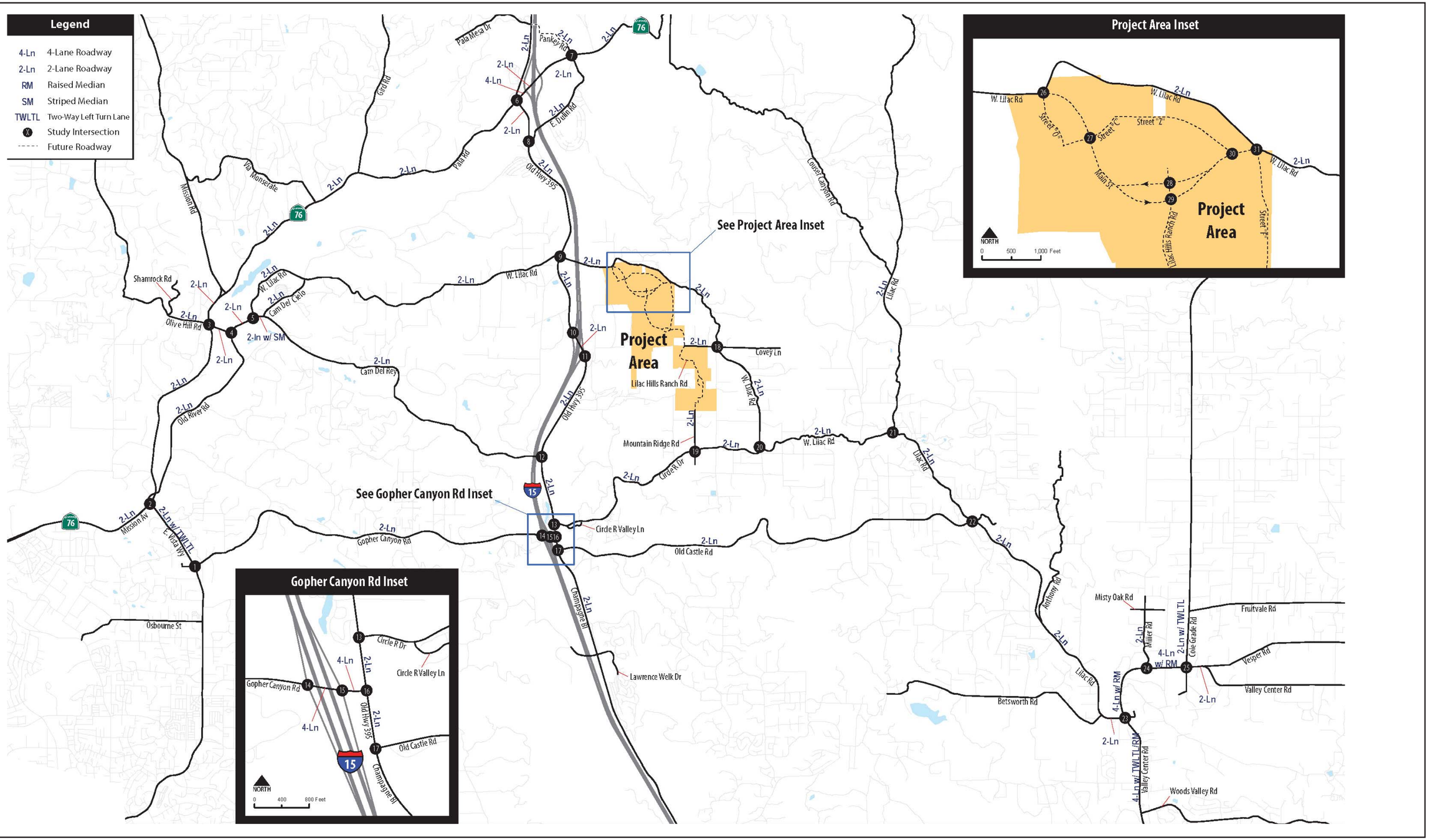

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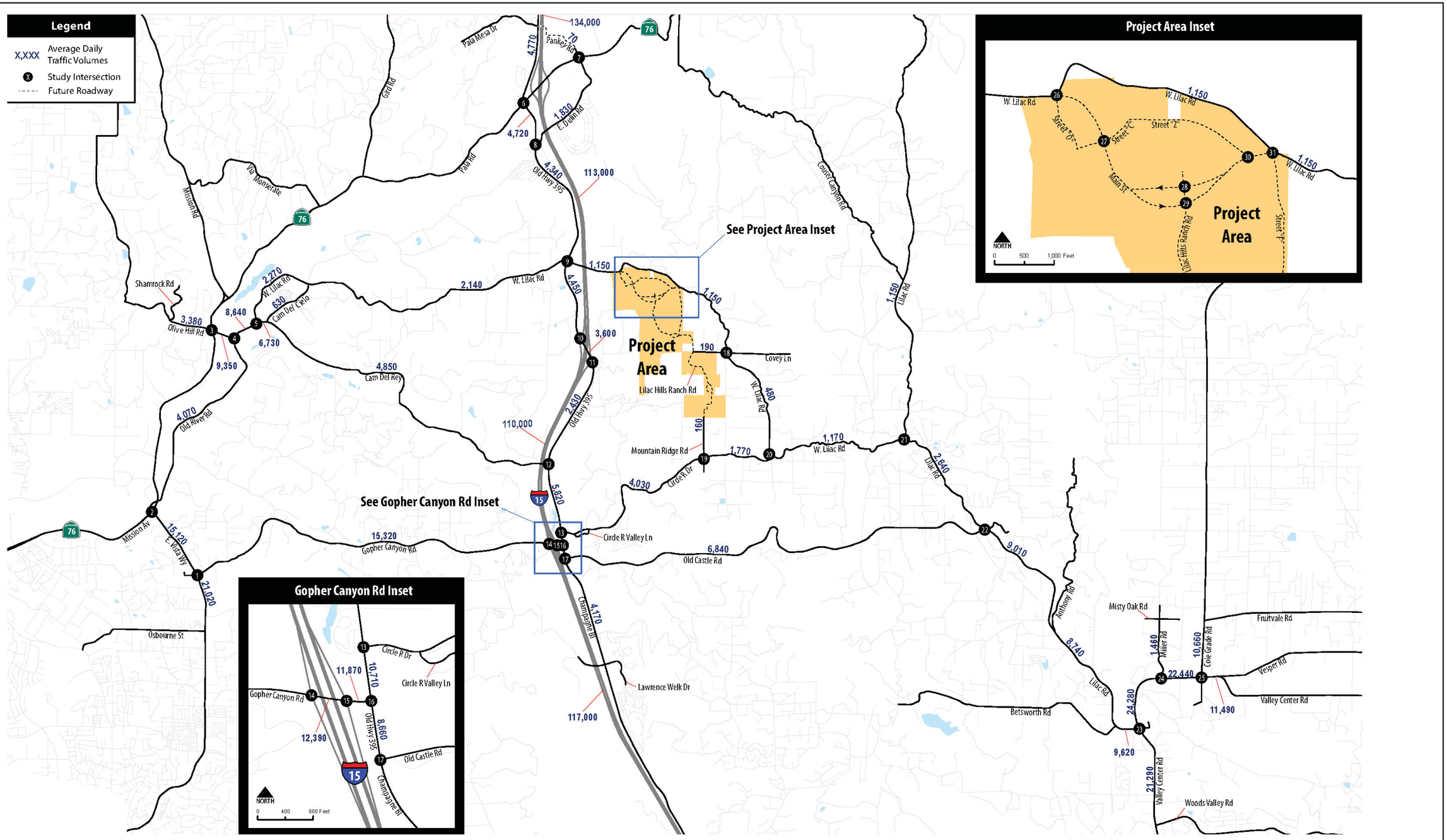
FIGURE 2.3-2
Existing Roadway Network

Map Source: Chen Ryan, 2013



Not to Scale

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FIGURE 2.3-3
Existing Roadway ADT

Map Source: Chen Ryan, 2013

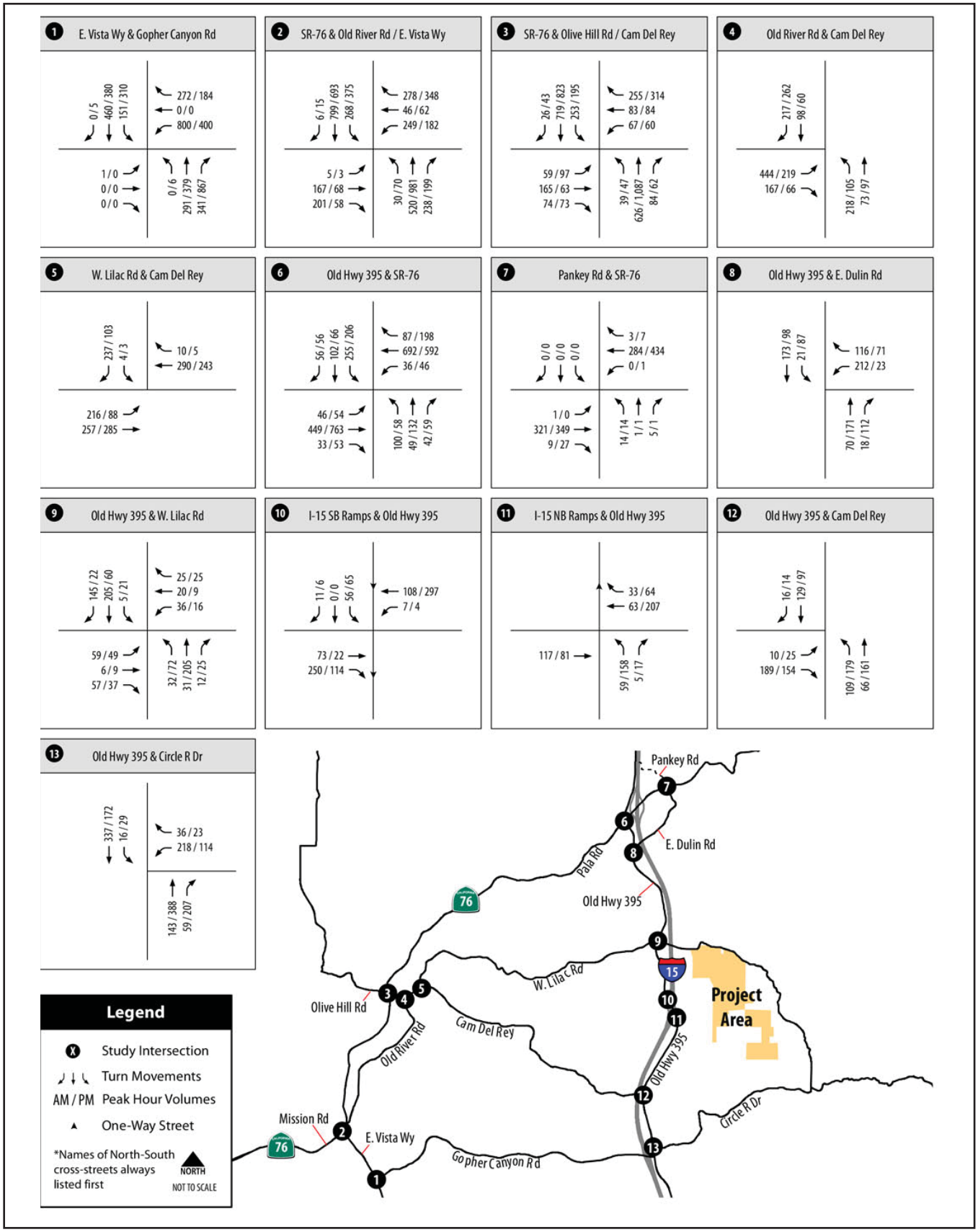

FIGURE 2.3-4a

Existing Intersection Peak Hour Traffic (Intersections 1-13)

RECON

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Map Source: Chen Ryan, 2013

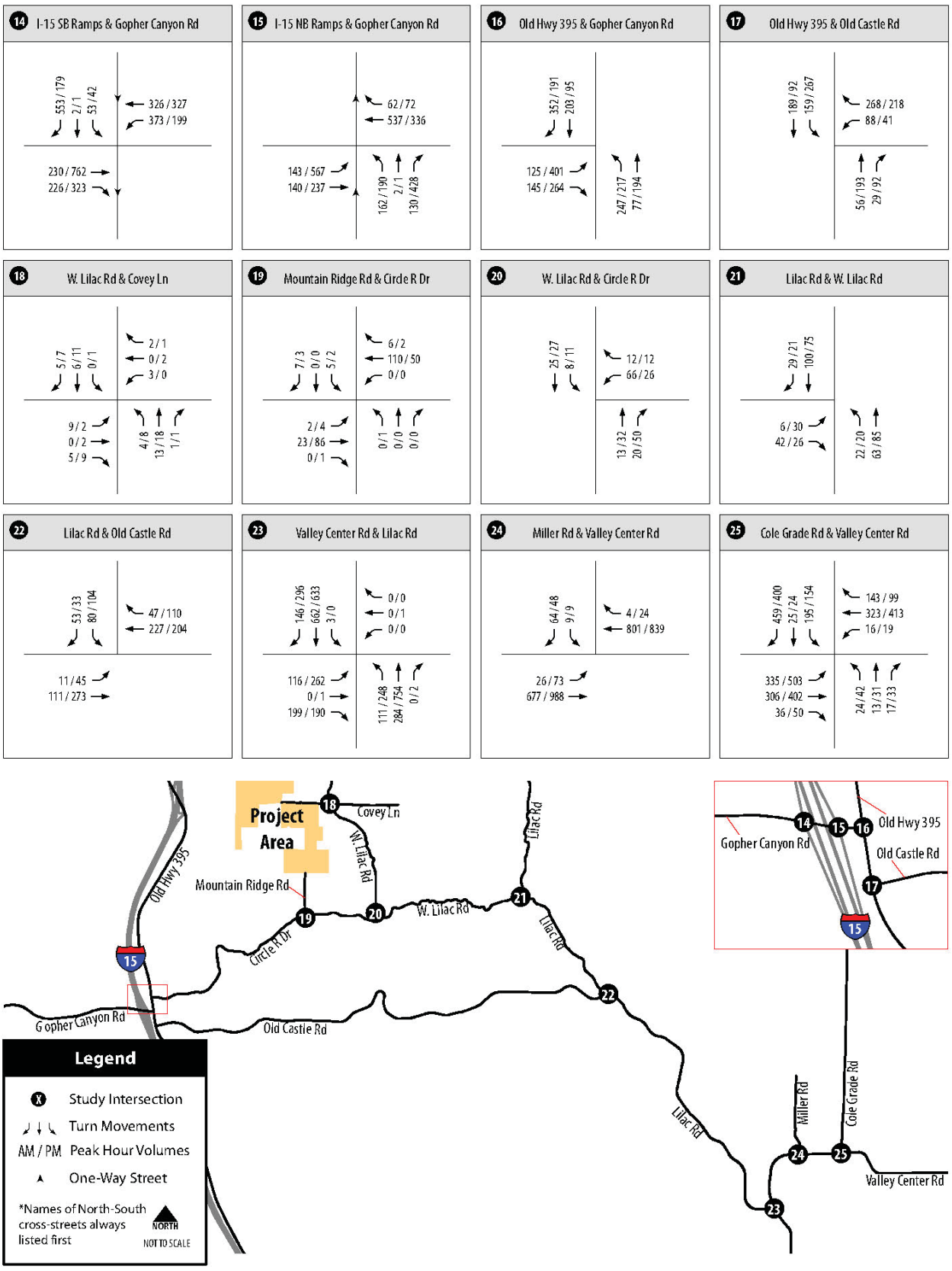


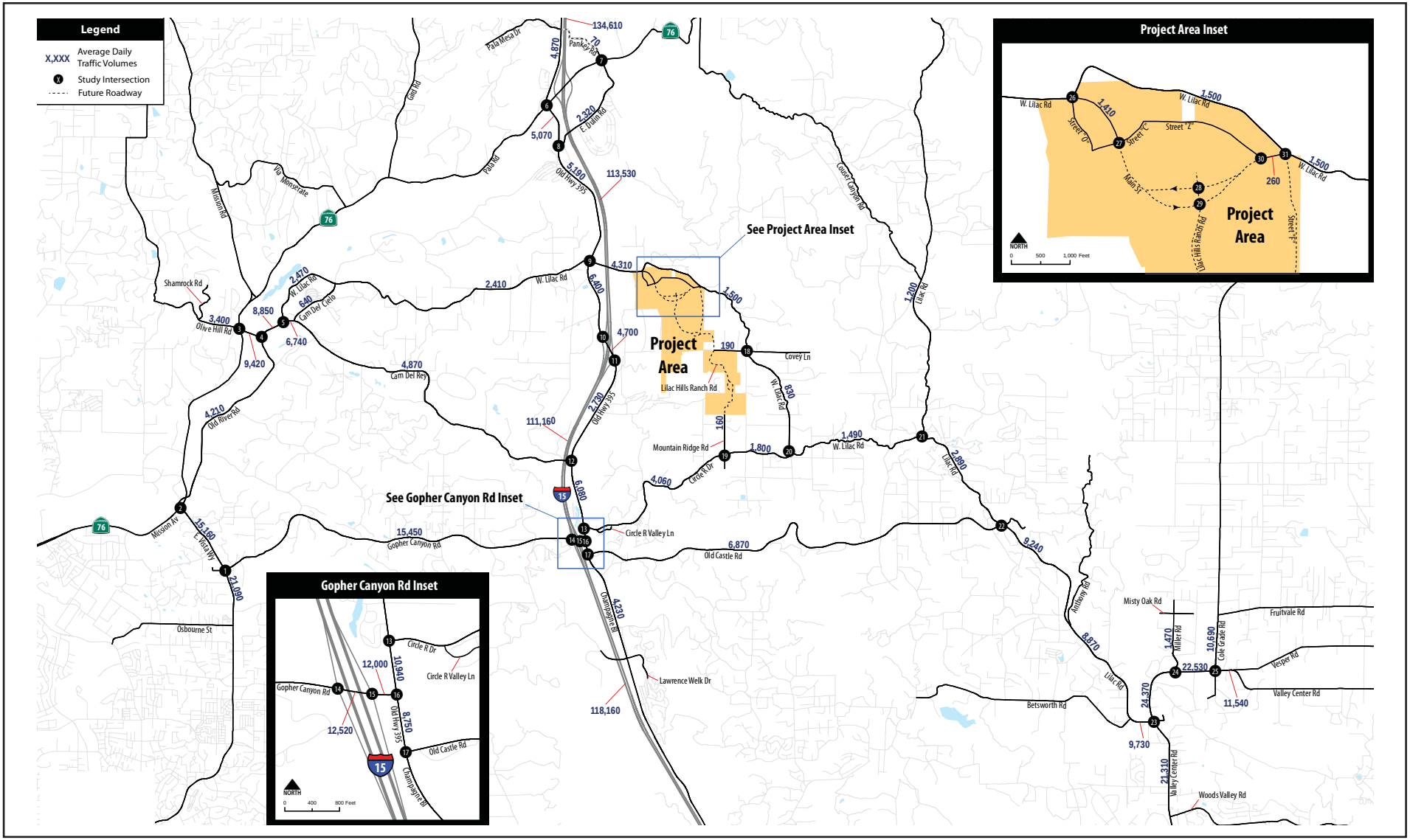
FIGURE 2.3-4b

Existing Intersection Peak Hour Traffic (Intersections 14-25)

RECON

M:\JOBS4\6153\env\graphics\fig2.3-4b.ai 05/22/13

Map Source: Chen Ryan, 2013



Not to Scale

FIGURE 2.3-5a

Roadway Average Daily Traffic Volumes- Existing Plus Project (Traffic Scenario A)

RECON

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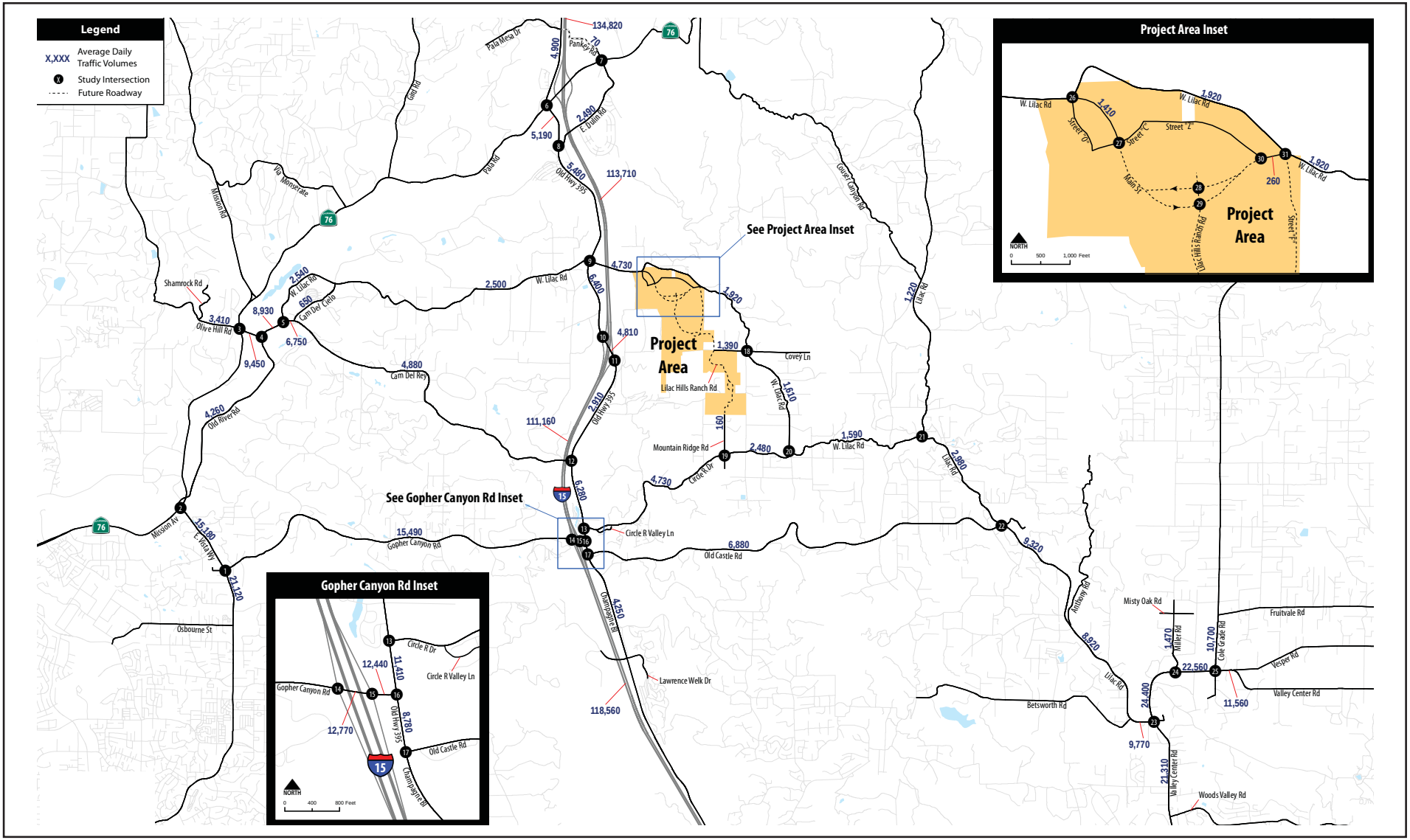
Map Source: Chen Ryan, 2013



Not to Scale

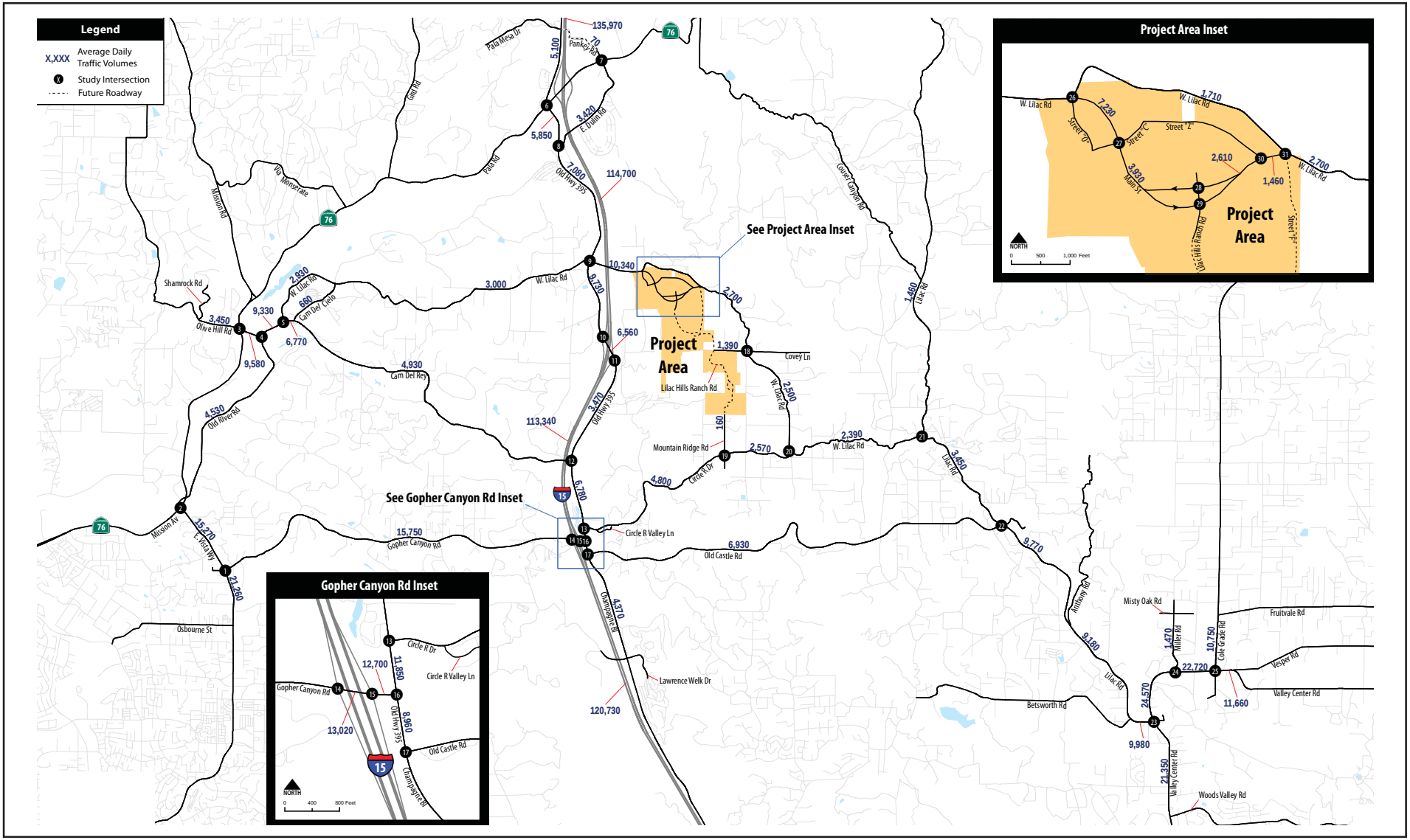
FIGURE 2.3-5b

Roadway Average Daily Traffic Volumes- Existing Plus Project (Traffic Scenario B)

RECON

M:\JOBS4\6153\Report_graphics\EIR\fig2.3-5b.ai 06/07/13

Map Source: Chen Ryan, 2013



Not to Scale

FIGURE 2.3-5c

Roadway Average Daily Traffic Volumes- Existing Plus Project (Traffic Scenario C)

RECON

M:\JOBS4\6153\Report_graphics\EIR\fig2.3-5c.ai 06/07/13

Map Source: Chen Ryan, 2013

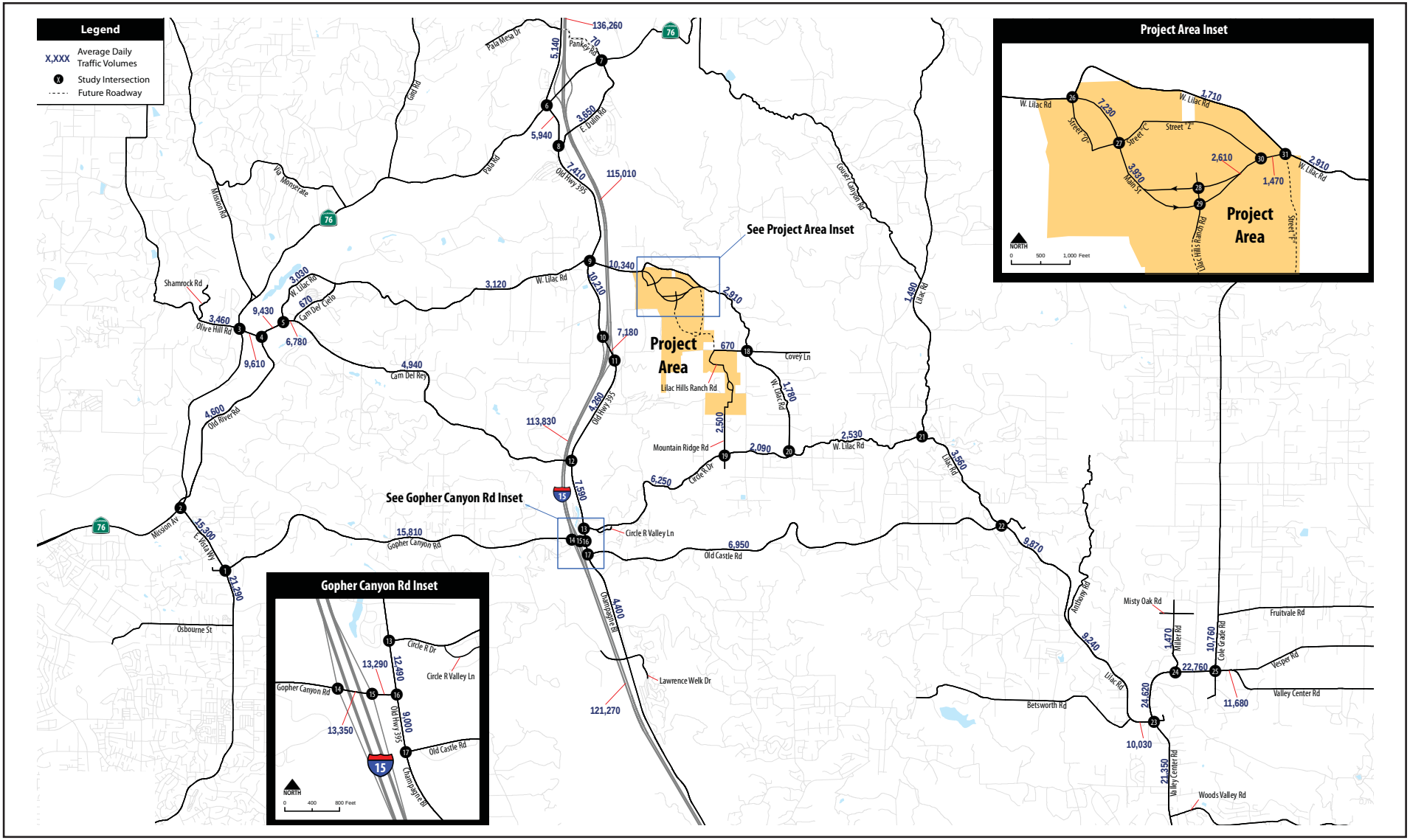


FIGURE 2.3-5d

Roadway Average Daily Traffic Volumes- Existing Plus Project (Traffic Scenario D)

RECON

M:\JOBS4\6153\Report_graphics\EIR\fig2.3-5d.ai 06/07/13

Map Source: Chen Ryan, 2013

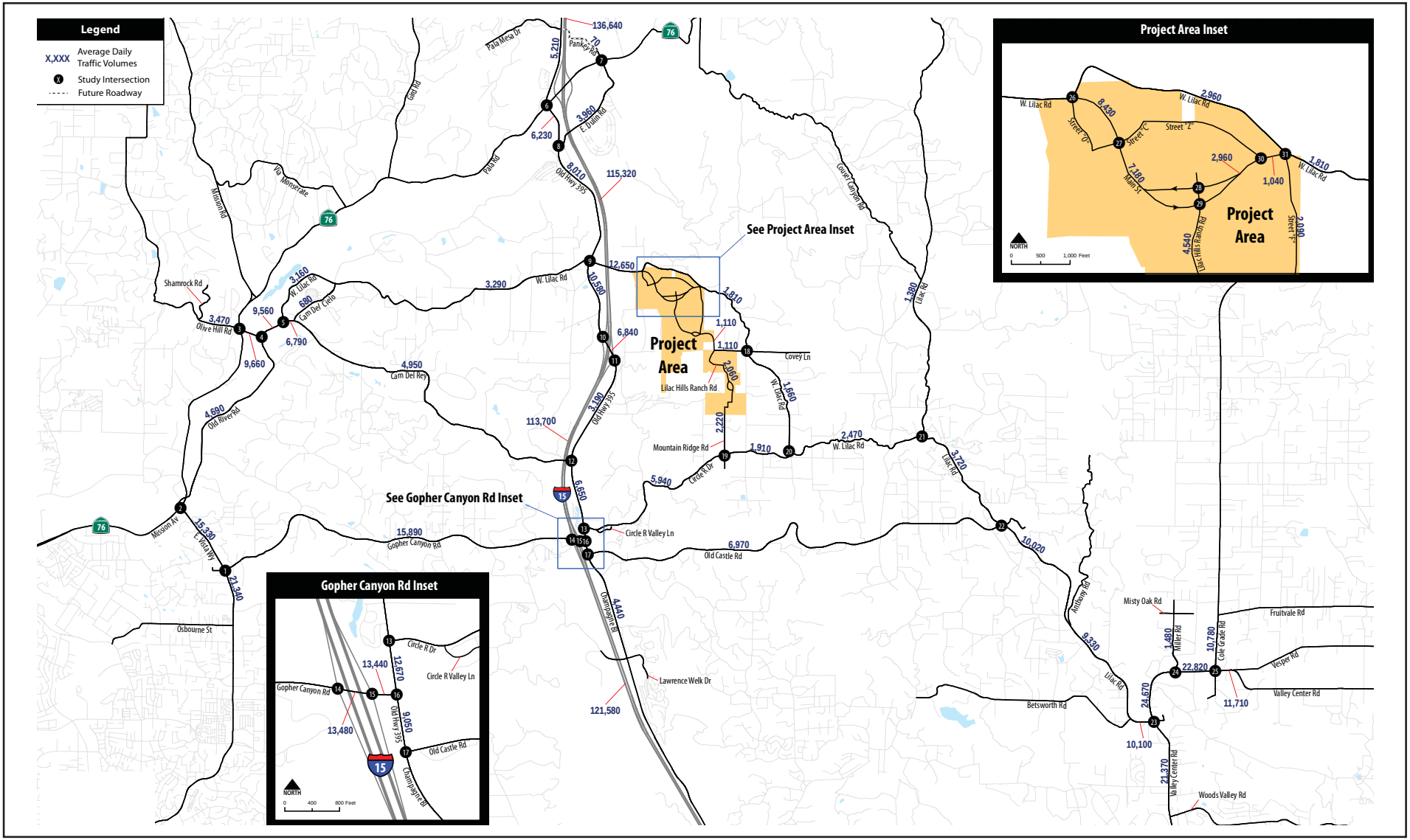


FIGURE 2.3-5e

Roadway Average Daily Traffic Volumes- Existing Plus Project (Traffic Scenario E, Build-out)

RECON

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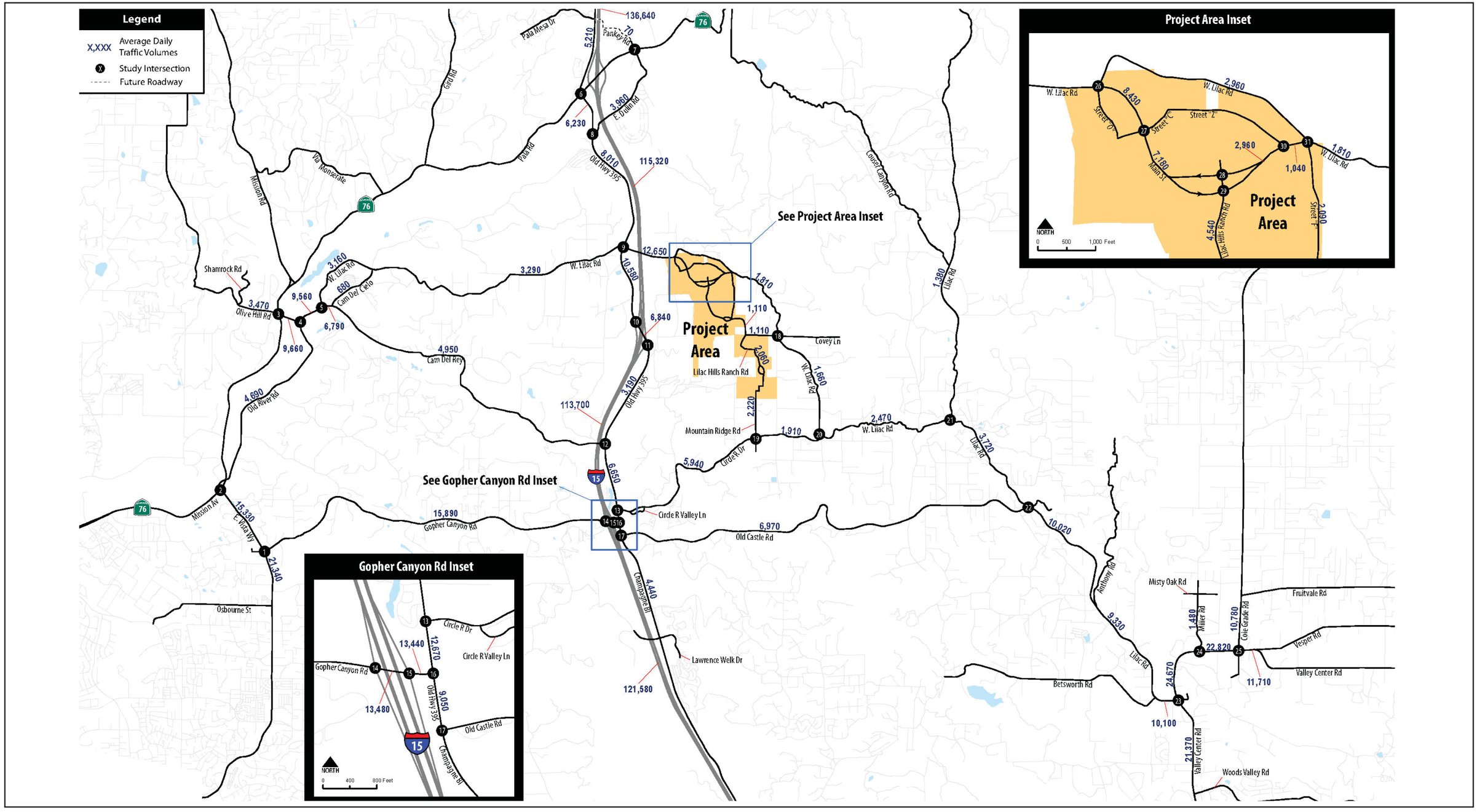
Map Source: Chen Ryan, 2013



Not to Scale

FIGURE 2.3-6
Existing Plus Project Roadway ADT

RECON

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Map Source: Chen Ryan, 2013

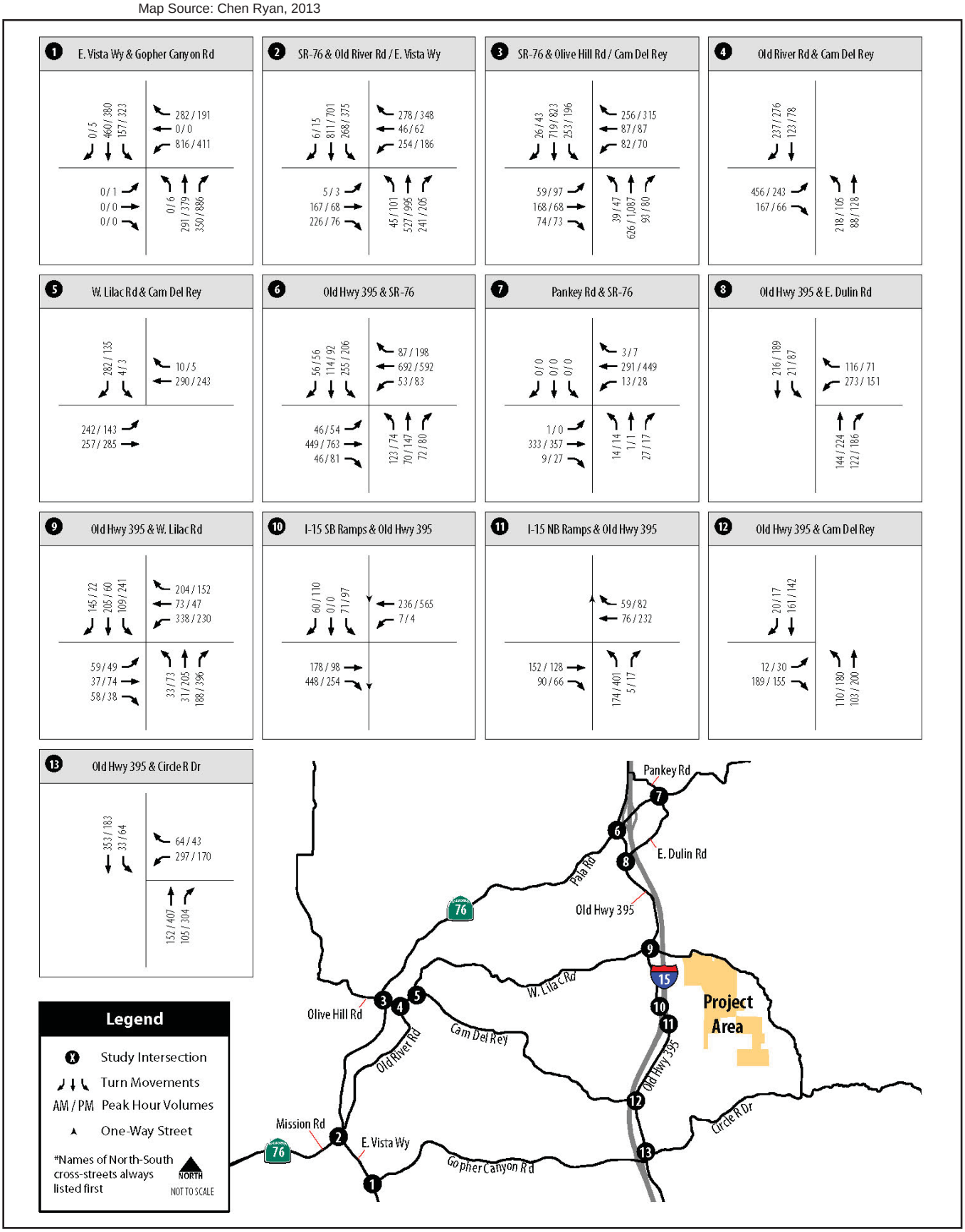

FIGURE 2.3-7a

Existing Plus Project Intersection Peak Hour Traffic (Intersections 1-13)

RECON

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Map Source: Chen Ryan, 2013

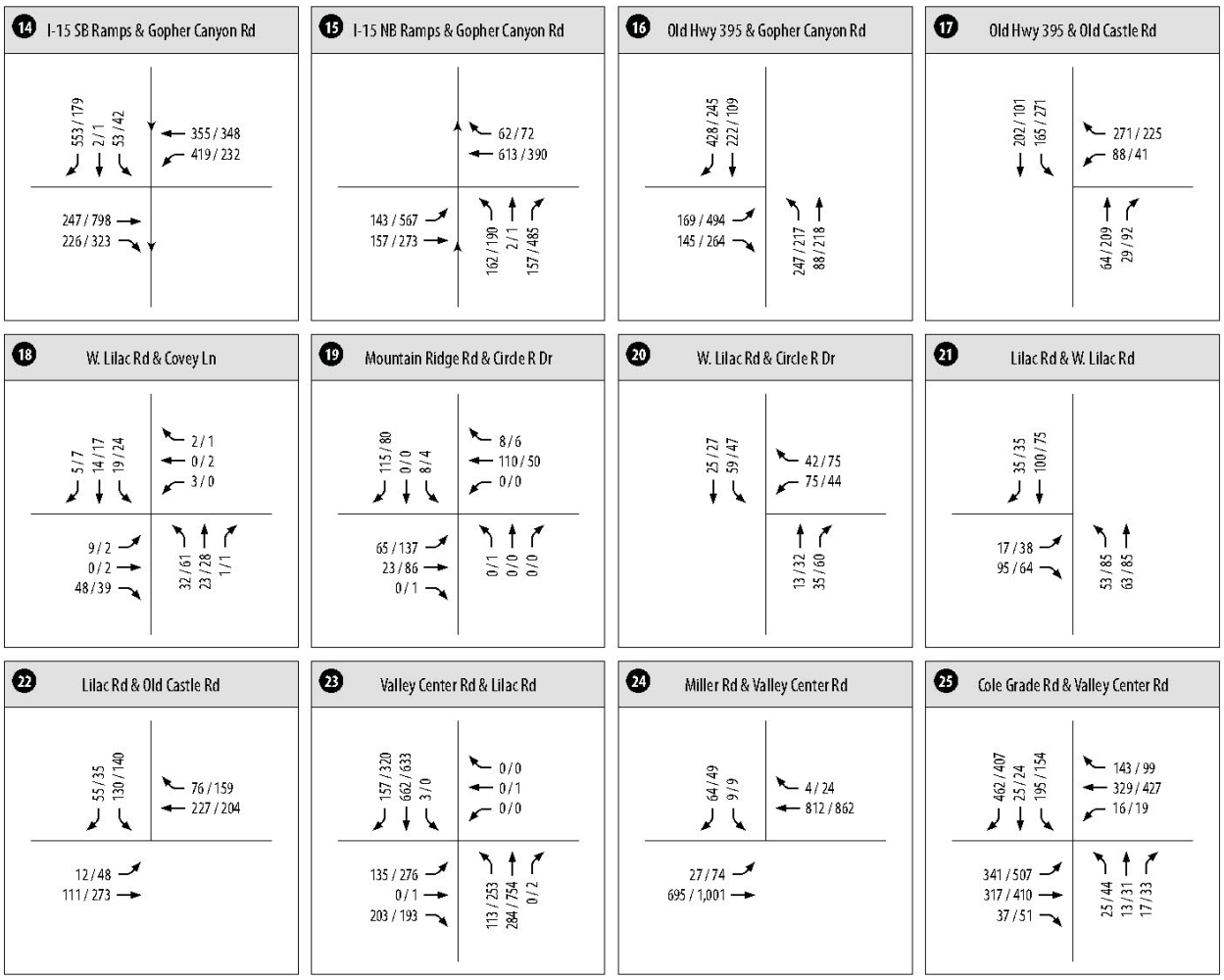

FIGURE 2.3-7b

Existing Plus Project Intersection Peak Hour Traffic (Intersections 14-25)

RECON

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Map Source: Chen Ryan, 2013

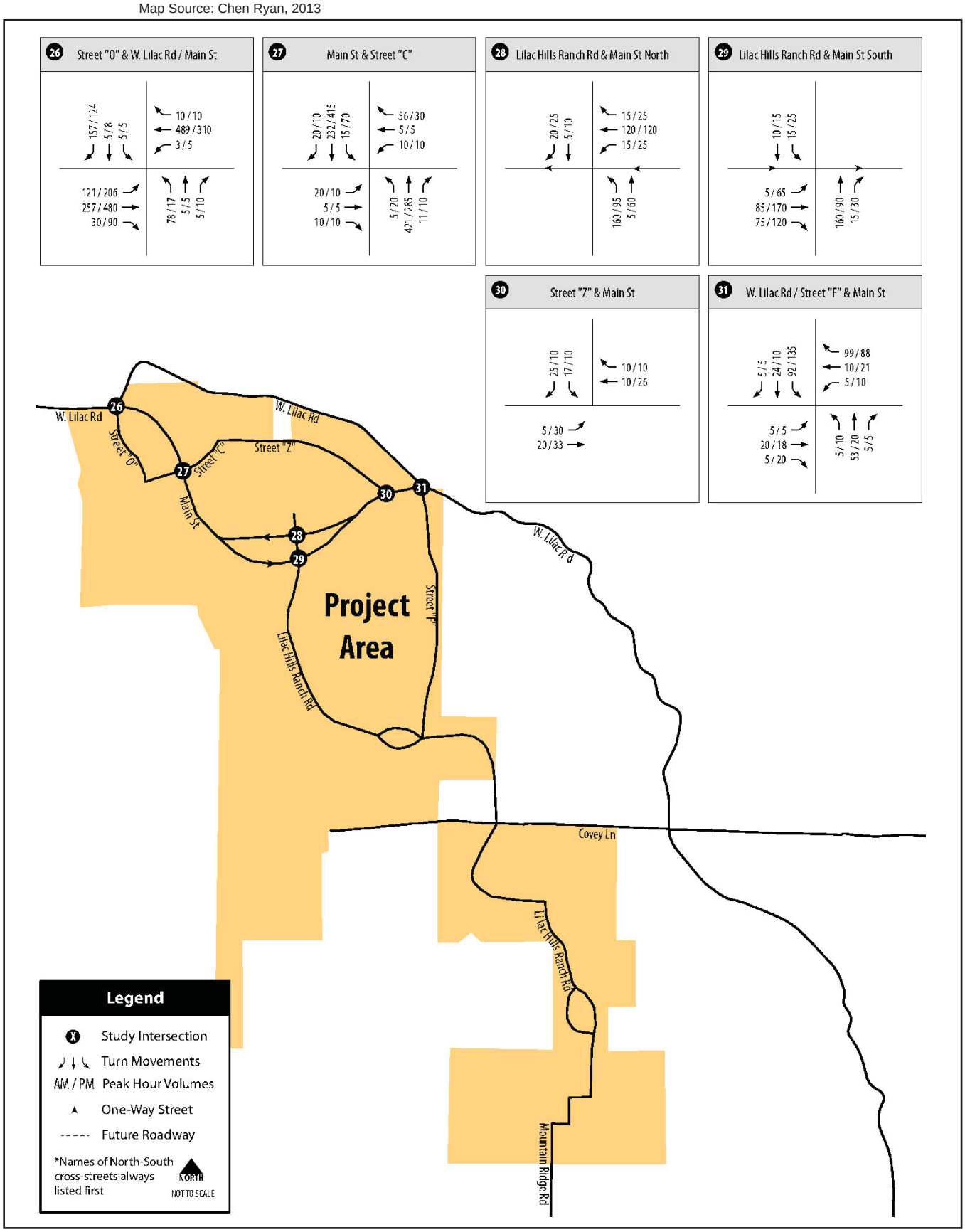

FIGURE 2.3-7c

Existing Plus Project Intersection Peak Hour Traffic (Intersections 25-31)

RECON

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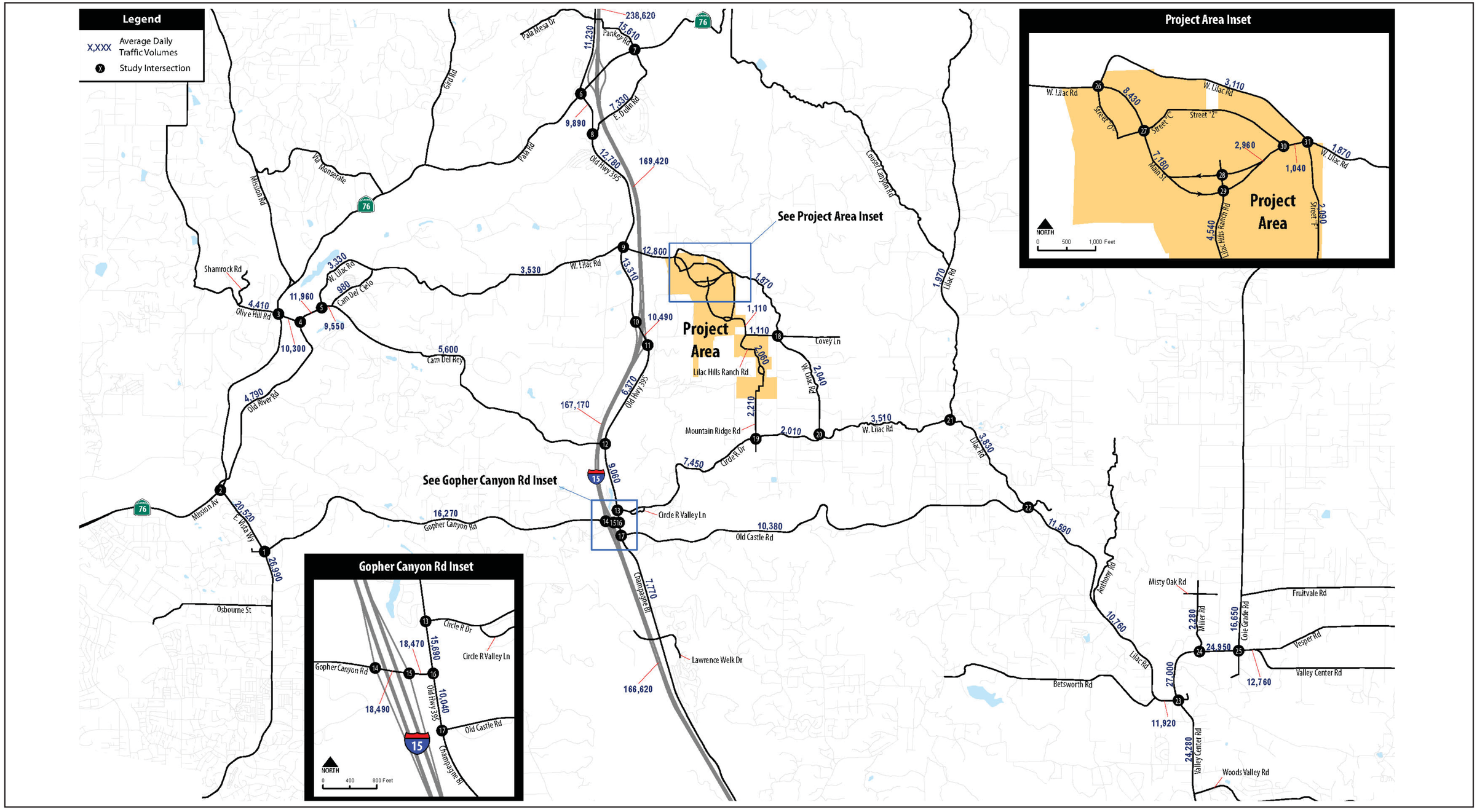
Map Source: Chen Ryan, 2013



Not to Scale

FIGURE 2.3-8
Existing Plus Cumulative Projects Plus Project Roadway ADT

RECON

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