2.10 Transportation and Traffic

This section describes the existing traffic and transportation system and the potential impacts associated with implementation of the proposed project. The analyses are based on the Traffic Impact Analysis (TIA) (LLG 2018) and Sight Distance Letter (Chang Consultants 2016), which are included in Appendix U of this EIR.

2.10.1 Existing Conditions

2.10.1.1 Existing Roadway Conditions

The study area, as shown in Figure 2.10-1 depicts the existing conditions for the 10 intersections and 10 roadway segments affected by the project. Figure 2.10-2 identifies the existing traffic volumes for study area roadways, including the peak hour volumes and the average daily traffic (ADT) volumes. The following is a description of the existing street system listed in the study area:

El Monte Road is classified as a "Minor Collector" on the County of San Diego General Plan Mobility Element within the study area. El Monte Road is currently constructed as a two-lane undivided roadway within the project vicinity. The posted speed limit is 40 mph.

Mapleview Street is classified as a "Major Road with a raised median" on the County of San Diego General Plan Mobility Element within the study area. It is currently constructed as a two-lane undivided roadway west of SR-67 and a four-lane undivided roadway with a two-way left-turn lane provided intermittently between SR-67 and Lake Jennings Park Road. Mapleview Street transitions to Lake Jennings Park Road between Ashwood Street and El Monte Road. Bike lanes and curbside parking are provided intermittently. A bus stop is provided at the Mapleview Street/ SR-67 interchange. The posted speed limit is 40 mph.

Lake Jennings Park Road is classified as a "Major Road with intermittent turn lanes" on the County of San Diego General Plan Mobility Element within the study area. It is currently constructed as a four-lane undivided roadway with a two-way left-turn lane west of El Monte Road, a three-lane undivided roadway between El Monte Road and Blossom Valley Road and a two-lane undivided roadway between Blossom Valley Road and I-8. Bike lanes and curbside parking are provided intermittently. The posted speed limit is generally between 40 to 55 mph.

State Route 67 (SR-67) is classified as a "Major Road with a raised median" north of Mapleview Street and an "Expressway" south of Mapleview Street on the County of San Diego General Plan Mobility Element within the study area. It is currently constructed as a two-lane divided roadway north of Mapleview Street and a four-lane expressway south of Mapleview Street. The posted speed limit is 65 mph.

Interstate 8 (I-8) is an east/west freeway connecting San Diego to Arizona and beyond. It is currently constructed as a four-lane freeway in the project vicinity. The posted speed limit of Interstate 8 is 70 mph. A local interchange is provided at Lake Jennings Park Road.

2.10.1.2 Study Intersections

The following are the study intersections analyzed for the proposed project:

1. Mapleview Street (East-West [EW])/SR-67 (North-South [NS])
2. Mapleview Street (EW)/Maine Avenue (NS)
3. Mapleview Street (EW)/Vine Street (NS)
4. Mapleview Street (EW)/Ashwood Street (NS)
5. Lake Jennings Park Road (NS)/El Monte Road (EW)/Julian Avenue (West-East)
6. El Monte Road and Project Driveway #1 (future driveway not yet constructed in existing conditions)
7. El Monte Road and Project Driveway #2 (future driveway not yet constructed in existing conditions)
8. Lake Jennings Park Road (NS)/Blossom Valley Road (EW)
9. Lake Jennings Park Road (NS)/I-8 Westbound Ramps (EW)
10. Lake Jennings Park Road (NS)/I-8 Eastbound Off-Ramp/Olde Hwy 80 (EW)

2.10.1.3 Study Roadway Segments

The following are the study roadway segments analyzed for the proposed project:

SR-67:

1. North of Mapleview Street
2. South of Mapleview Street

Mapleview Street/Lake Jennings Park Road:

3. West of SR-67
4. between SR-67 and Maine Avenue
5. between Maine Avenue and Vine Street
6. between Vine Street and Ashwood Street
7. between Ashwood Street and El Monte Road
8. between El Monte Road and Blossom Valley Road
9. between Blossom Valley Road and I-8

El Monte Road:

10. North of Mapleview Street

2.10.1.4 Traffic Volumes and Conditions

The existing AM and PM peak hour turning movement counts are shown on Figure 2.10-2. Weekday AM/PM peak hour intersection turning movement volume counts were collected on Tuesday, March 17, 2015. The intersection counts were conducted between the hours of 7:00-9:00 a.m. and 4:00-6:00 p.m. to capture peak commuter activity.

Bi-directional daily traffic counts were conducted on Tuesday, March 17, 2015. Table 2.10-1 is a summary of ADT volumes for the key roadway segments in the project vicinity.

2.10.1.5 Level of Service

Level of Service (LOS) is a professional industry standard by which the operating conditions of a given roadway segment or intersection are measured. LOS is defined on a scale of A to F, where LOS A represents the best operating conditions and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds; traffic volumes are low and travel speeds are high. LOS F facilities are characterized as having forced flow with many stoppages and low operating speeds.

The San Diego County Guidelines for Determining Significance and Report Format and Content Requirements for Transportation and Traffic (County Guidelines for Transportation and Traffic), approved August 24, 2011, summarizes the generally accepted LOS criteria for the various guidelines relevant to the County. The County Guidelines for Transportation and Traffic have established LOS D or higher as an acceptable level of operation for all roadways within the County (San Diego County 2011a).

According to the County's General Plan Mobility Element, when development is proposed on roads where a LOS E or F has been accepted, it is required that feasible mitigation in the form of road improvements or a fair share contribution to a road improvement program must be implemented. Therefore, projects that significantly increase congestion on roads operating at LOS E or F must provide mitigation (San Diego County 2011b).

Study area signalized and unsignalized intersections were analyzed under AM and PM peak hour conditions using the methodology in the 2010 Highway Capacity Manual (HCM) and Synchro (version 9.0) computer software. All traffic calculation worksheets and a more detailed explanation of the methodology are included in the TIA (refer to Appendix U).

The street segment analysis is based on the roadway traffic volumes, cross-sections and classification. For this project, the ADT volumes of the roadway segments in the study area were compared to the County's LOS classification thresholds.

Table 2.10-2 summarizes the existing intersection operations in the project vicinity. All intersections are currently operating with acceptable levels of service (LOS D or better) during the peak hours, except at the following intersections:

- Mapleview Street/SR-67 – LOS F during the PM peak hour
- Mapleview Street/Maine Avenue – LOS F during the PM peak hour
- Mapleview Street/Ashwood Street – LOS F during the AM peak hour
- Lake Jennings Park Road/I-8 EB Off-Ramp/Olde Hwy 80 – LOS F during the PM peak hour

Table 2.10-3 summarizes the existing roadway segment operations in the project vicinity. All the study road segments are currently operating with acceptable levels of service (LOS D or better), except for the following roadway segments:

- SR-67 – North of Mapleview Street
- Mapleview Street/Lake Jennings Park Road – between Blossom Valley Road and I-8

2.10.1.6 Regulatory Framework

Federal

Highway Capacity Manual

The HCM, prepared by the federal Transportation Research Board, is the result of a collaborative multi-agency effort between the Transportation Research Board, Federal Highway Administration (FHWA), and American Association of State Highway and Transportation Officials (Transportation Research Board 2010). The HCM contains concepts, guidelines, and procedures for computing the capacity and quality of service of various transportation facilities, including freeways, signalized and unsignalized intersections, and rural highways, and the effects of transit, pedestrians, and bicycles on the performance of these systems.

Code of Federal Regulations Title 23

Revised in April 1, 2005, CFR Section 450.220 of Title 23 requires each state to carry out a continuing, comprehensive, and intermodal statewide transportation planning process. This planning process must include the development of a statewide transportation plan and transportation improvement program that facilitates the efficient, economical movement of people and goods in all areas of the state.

State

California Department of Transportation

Caltrans is responsible for planning, designing, building, operating, and maintaining California's transportation system. Caltrans sets standards, policies, and strategic plans that aim to do the following: (1) provide the safest transportation system for users and workers; (2) maximize transportation system performance and accessibility; (3) efficiently deliver quality transportation projects and services; (4) preserve and enhance California's resources and assets; and (5) promote quality service. Caltrans has the discretionary authority to issue special permits for the use of State highways for other than normal transportation purposes.

Statewide Transportation Improvement Program

The California 2014 Statewide Transportation Improvement Plan (STIP), approved by the USDOT in August 2013, is a multi-year, intermodal program of transportation projects that is consistent with the statewide transportation planning processes, metropolitan plans, and Title 23 of the CFR. 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 the 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 CFR Title 23, including federally funded projects.

Local

2050 Regional Transportation Plan

SANDAG adopted the 2050 RTP and Sustainable Communities Strategy (SCS) on October 28, 2011 (SANDAG 2011). The 2050 RTP maps out a system designed to maximize transit enhancements, integrate biking and walking elements, and promote programs to reduce demand and increase efficiency (SANDAG 2011). The RTP also identifies the plan for investing in local, state, and federal transportation facilities in the region over the next 40 years. The SCS also addresses how the transportation system would be developed in such a way that the region is able to reduce per-capita GHG emissions to state-mandated levels.

2014 Regional Transportation Improvement Program

The RTIP is a multi-year program of proposed major highway, arterial, transit, and bikeway projects. The 2014 RTIP is a prioritized program designed to implement the region's overall strategy for providing mobility and improving the efficiency and safety of efforts to attain federal and state air quality standards for the region (SANDAG 2014).

San Diego County Congestion Management Program

California State Proposition 111, passed by voters in 1990, established a requirement that urbanized areas prepare and regularly update a Congestion Management Program (CMP). The requirements within the State CMP were developed to monitor the performance of the transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. SANDAG provided regular updates for the state CMP from 1991 through 2008. In October 2009, the San Diego region elected to be exempt from the State CMP and, since this decision, SANDAG has been abiding by 23 CFR 450.320 to ensure the region's continued compliance with the federal congestion management process.

San Diego County General Plan Mobility Element

The San Diego County General Plan (GP) Mobility Element provides a framework for a balanced, multi-modal transportation system within the unincorporated areas of the County of San Diego (San Diego County 2011b). The Mobility Element includes a description of the County's transportation network and the goals and policies that address safety, efficiency, maintenance, and management of the transportation network.

San Diego County 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 County's General Plan 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 ADTs.

Transportation Impact Fee Program and Ordinance

The County adopted the Transportation Impact Fee (TIF) Ordinance that establishes the TIF program. According to the County Guidelines for Transportation and Traffic, 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. 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 updated

when there is an adopted change to the General Plan land uses and/or Mobility Element. As stated in the TIF program, there 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]).

2.10.2 Analysis of Project Effects and Determination as to Significance

For the purpose of this EIR, the identified significance thresholds are based on criteria provided in the County Guidelines for Determining Significance and Report Format and Content Requirements for Transportation and Traffic (County Guidelines for Transportation and Traffic), approved August 24, 2011.

2.10.2.1 Issue 1: Traffic and Level of Service Standards

Guidelines for the Determination of Significance

Based on the County Guidelines for Transportation and Traffic, a significant impact would occur with implementation of the proposed project if one of the thresholds stated below is exceeded. The applicable thresholds include the following:

1. Road Segments

   Traffic volume increases that result in one or more of the following criteria would have a significant traffic volume or LOS traffic impact on a road segment if:

   a. The additional or redistributed ADT generated by the proposed project would significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or would cause a Circulation Element Road or State Highway to operate at a LOS E or LOS F as a result of the proposed project, as identified in Table 2.10–4, or

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

2. Intersections

   This section provides guidance for evaluating adverse environmental effects a project may have on signalized and unsignalized intersections. Table 2.10–5 summarizes the allowable increases in delay or traffic volumes at signalized and unsignalized intersections. Exceeding the thresholds in Table 2.10–5 would result in a significant impact.

   Signalized Intersections

Traffic volume increases that result in one or more of the following criteria would have a significant traffic volume or LOS traffic impact on signalized intersections:

a. The additional or redistributed ADT generated by the proposed project would significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or would cause a signalized intersection to operate at the LOS E or LOS F as identified in Table 2.10–5.

b. 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.

Unsignalized Intersections

Traffic volume increases that result in one or more of the following criteria would have a significant impact on an unsignalized intersection as listed in Table 2.10–5 and described as text below:

a. The additional or redistributed ADT generated by the proposed project would add 21 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D, or

b. The additional or redistributed ADT generated by the proposed project would add 21 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E, or

c. The additional or redistributed ADT generated by the proposed project would add 6 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or

d. The additional or redistributed ADT generated by the proposed project would add 6 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or

e. 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

Project Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a proposed project. The traffic generation for the project is based upon the number of truck and employee trips planned for this project. For the purpose of this traffic analysis, trip generation during construction of the project includes

heavy truck and light vehicle trips generated during site preparation, active mining operation, and reclamation over a 16-year period. The phase of the project that would have the greatest effect on the traffic and circulation system is when the project site is being actively mined. The project includes mining 12.5 million tons of mineral resource over a 12-year active timeframe. The project site would operate approximately 306 work days per year. The weight capacity of a standard heavy vehicle for outgoing loads is approximately 27 tons per truck. A maximum work day would include 157 one-way heavy vehicles (trucks) accessing the project site, spread throughout the day. In addition to the heavy vehicle trips, up to 12 employees and 2 vendors are expected to access the project site on a typical day. As shown in Table 2.10–6 heavy and light vehicles are anticipated to generate approximately 813 ADT. Figure 2.10–3 shows the proposed project's total traffic volumes.

Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the project site. The distribution of the project truck traffic will depend upon the location of the various concrete batch plants, which are spread across San Diego County, to which the excavated material would be delivered. For the purposes of this report, the heavy vehicle trips were split 50 percent/50 percent to SR-67 and I-8. Figure 2.10–4 and Figure 2.10–5 show the project traffic distribution for light vehicles and heavy vehicles, respectively.

Cumulative Projects

Cumulative projects are other projects in the study area that have added traffic to the local circulation system in recent past or will add traffic in the foreseeable future. Table 2.10–7 contains the list of cumulative projects. Figure 2.10–6 shows the location of each cumulative project. Figure 2.10–7 shows the cumulative projects associated traffic volumes.

Traffic Conditions Scenarios

In accordance with the County Guidelines for Transportation and Traffic, the following traffic conditions scenarios were analyzed:

1. **Existing plus Project** – The Existing plus Project scenario consists of existing traffic volumes and the forecasted traffic volumes associated with the proposed project.
2. **Near-Term without Project** – The Near-Term without Project scenario consists only of existing traffic volumes and forecasted traffic volumes associated with the cumulative developments. Project implementation is not considered in this scenario.
3. **Near-Term with Project** – The Near-term with Project scenario consists of existing traffic volumes and the forecasted traffic volumes associated with both the cumulative developments and the proposed project. This

analysis will identify any potential significant cumulatively considerable impacts associated with the proposed project.

Table 2.10–8 summarizes the intersection operations, including average delay and LOS, for all three traffic condition scenarios. Table 2.10–9 summarizes the roadway segment operations, including ADT and LOS, for all three traffic condition scenarios. Project impacts are determined based on the project-induced increase in delay for intersections based on the allowable thresholds set by the County Guidelines for Transportation and Traffic. The Near-Term without Project and the Near-Term with Project traffic scenarios are discussed under Section 2.10.3, Cumulative Impacts, below.

Existing with Project Traffic Conditions

Intersection Analysis

Figure 2.10-8 illustrates the Existing with Project scenario traffic conditions. As shown in Table 2.10-8, all intersections are anticipated to operate at LOS D or better, except for the following intersections:

- Mapleview Street/SR-67 – LOS F during the PM peak hour
- Mapleview Street/Maine Avenue – LOS F during the PM peak hour
- Mapleview Street/Ashwood Street – LOS F during the AM peak hour
- Lake Jennings Park Road/El Monte Road/Julian Avenue – LOS E during the AM peak hour
- Lake Jennings Park Road/I-8 Eastbound Off-Ramp/Olde Hwy 80 – LOS F during the PM peak hour

However, project impacts are determined based on the project-induced increase in delay to the intersection based on the allowable thresholds. Based on the County Guidelines for Transportation and Traffic significance criteria shown in Table 2.10-5, the intersection at Lake Jennings Park Road/El Monte Road/Julian Avenue was determined to operate at deficient LOS because the addition of the project's traffic volumes exceeded the allowable threshold for increases in the intersection delay time. Therefore, a **potentially significant direct impact (Impact TR-1a)** would occur at the intersection of Lake Jennings Park Road/El Monte Road/Julian Avenue under the Existing plus Project scenario.

Roadway Segment Analysis

As shown in Table 2.10-9, all roadway segments are anticipated to continue to operate at an acceptable LOS (LOS D or better), with the exception of the following:

- SR-67 – North of Mapleview Street – LOS F
- Lake Jennings Park Road – between Blossom Valley Road and I-8 – LOS F

However, for roadway segments that exceed the allowable thresholds, project impacts are determined based on the project's contribution to the roadway's total traffic trips. Based on the County Guidelines for Transportation and Traffic significance criteria shown in Table 2.10-4, the Lake Jennings Park Road roadway segment—between Blossom Valley Road and I-8—was determined to operate at a deficient LOS due to the project's traffic trips contribution exceeding the allowable threshold of LOS D or better. Therefore, a **potentially significant direct impact (Impact TR-1b)** would occur at this roadway segment under the Existing plus Project scenario.

Truck Turning Templates

Per the request of Caltrans, truck turning templates were also conducted at the existing Mapleview Street/SR-67 and Lake Jennings/I-8 ramp intersections. Based on the truck turning templates conducted, adequate truck turning maneuvers are afforded at the Mapleview Street/SR-67 and Lake Jennings Park Road/I-8 ramp intersections. However, as shown in Figure 2.10-9, at the Lake Jennings Park Road/I-8 Eastbound off-ramp/Olde highway 80 intersection, a conflict was identified for eastbound left-turning trucks with the raised intersection on the westbound approach. Therefore, to eliminate the conflict and to provide adequate truck maneuverability, the limit lane and stop legend on southbound Lake Jennings Park Road is recommended to be shifted to the north by approximately 6 feet. However, since this conflict is identified under existing conditions and is not triggered by the project, it is recommended that Caltrans implements this design improvement.

2.10.2.2 Issue 2: Congestion Management

Guidelines for the Determination of Significance

Based on the County Guidelines for Transportation and Traffic, a significant impact would occur with implementation of the proposed project if one of the thresholds stated below is exceeded. The applicable thresholds include the following:

1. Projects that generate over 2,400 ADT or 200 peak hour trips must comply with the traffic study requirements of SANDAG Congestion Management Program. A project is considered to have a significant impact if traffic would decrease the operations of surrounding roadways by a defined threshold. The defined thresholds shown in Table 2.10–10 below for roadway segments and intersections are based on published SANDAG guidelines. If the proposed project exceeds the thresholds below, then it would result in a significant impact.

Analysis

As stated in Section 2.10.2.1, Issue 1: Traffic and Level of Service Standards, the following three traffic conditions scenarios were analyzed: (1) Existing plus

Project; (2) Near-Term without Project; and (3) Near-Term with Project. The Near-Term without Project and the Near-Term with Project traffic scenarios are discussed under Section 2.10.3, Cumulative Impacts, below. As shown in Table 2.10-8 and Table 2.10-9, under the Existing plus Project scenario, the following intersections and roadways would have impacts with implementation of the proposed project:

Intersections

- Lake Jennings Park Road/El Monte Road/Julian Avenue – LOS E during the AM peak hour and an increase of delay time of 0.9 second.

Roadway Segments

- Lake Jennings Park Road – between Blossom Valley Road and I-8 – LOS F and an increase of V/C of 0.02.

Based on the significance criteria shown in Table 2.10-10, a significant impact would occur if a roadway results in an increase of 0.02 V/C or greater, or if an intersection results in an increased delay of 2 seconds or greater. The roadway segment on Lake Jennings Park Road, between Blossom Valley Road and I-8, would exceed the allowable thresholds for congestion management for roadway segments within the County. Even though the roadway segment is currently operating at an LOS F in existing conditions, the amount of trips generated with the proposed project would result in an increase of 0.02 V/C, which is considered a significant increase. Therefore, a **potentially direct significant impact (Impact TR-2)** related to congestion management would occur to this roadway segment under the Existing plus Project scenario.

2.10.2.3 Issue 3: Hazardous Design Features

Guidelines for the Determination of Significance

Based on the County Guidelines for Transportation and Traffic, 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 road 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 proposed project may affect the safety of the roadway;
- The physical conditions of the project site and surrounding area, such as curves, slopes, landscaping or other barriers, may result in conflicts with other users or stationary objects; or
- Conformance of existing and proposed roads to the requirements of the private or public road standards, as applicable.

Additionally, according to the County Guidelines for Transportation and Traffic, 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

As stated above, the addition of truck trips generated by the proposed project would not impact the surrounding roadways, with the exception of Lake Jennings Park Road, between Blossom Valley Road and I-8. Operation of the proposed project would add 420 additional trips to this roadway under both the Existing Plus Project and Near-Term Plus Project scenarios. With this increase in average daily trips along this roadway, the proposed project may affect the safety of this roadway. However, all truck trips associated with the proposed project would be required to comply with all applicable roadways standards as well as the posted speed limits for all surrounding roadways within the project area. Therefore, while the project would increase the ADT of surrounding roadways, it would not decrease the safety of these roadways.

Access to the project site would consist of separate ingress and egress for heavy vehicles and employees. Ingress to the project site from El Monte Road would use an existing eastbound left-turn lane (referred to as Project Driveway #1) located on the western edge of the project site. Egress from the project site (referred to as Project Driveway #2) would be located approximately 0.4 mile east of the entrance. Access to the project site would be controlled 24 hours a day through a gated entrance. Gates would be installed and open during normal hours of operation from 7:00 a.m. and 5:00 p.m., Monday through Friday, and

from 7:00 a.m. to 1:00 p.m. on Saturdays, and would be closed and locked during non-operational hours. The conceptual internal hauling road would allow access to the entire project site and would be designed to accommodate heavy truck trips with no sharp turns. Further, since mining will be ongoing, the haul road will be adjusted by the operator as needed and would construct ramps within the mining pit, as needed, to provide access up and down the pit slopes.

Additionally, trucks leaving the site from the egress driveway would merge onto El Monte Road at slower speeds than vehicles driving along the roadway. According to the El Monte Sand Mining Project Site Distance Letter (Chang 2016), El Monte Road is classified as a 2.3C Minor Collector, which has a minimum design speed of 35 miles per hour (mph). The County's Public Road Standards (Standards) state that the design speed used to determine the sight distance is based on the greater of the current prevailing speed (if known) and the minimum design speed (County of San Diego 2012). According to the Site Distance Letter, the prevailing speed is not known and the speed limit is posted at 40 mph for El Monte Road. Additionally, based on a site distance requirement of 100 feet per 10 mph, the proposed project would need a minimum site distance of 350 feet from the proposed egress access to be in compliance with sight distance requirements. The site distance at the proposed project's outbound access exceeds the 350-foot requirement in both directions. Specifically, the sight distance is approximately 500 feet to the east and exceeds 500 feet to the west (Chang 2016). Therefore, the proposed project would not create a hazard with outbound trucks moving at slower speeds and impacts would be **less than significant**.

As discussed in Chapter 3.7, Recreation, the proposed project would include onsite trails bordering the project site to provide residents with opportunities for pedestrian and equestrian activity, as well as to contribute to expansion of or linkage to the County's trail system. The addition of project trails and other proposed trails could attract more hikers and equestrian use in the area. However, the project driveways are located along a major roadway, El Monte Road, where pedestrians and equestrians would be visible when turning out of the project site during operational hours. To ensure pedestrian safety while utilizing the trail system, temporary fencing would be installed while mining operations are ongoing to keep out pedestrians and equestrian users from accessing the internal roadway system and mining area within the project site. Therefore, implementation of the proposed project would result in **less than significant** impacts related to hazards due to a design feature.

2.10.2.4 Issue 4: Alternative Transportation Facilities

Guidelines for the Determination of Significance

Based on the County Guidelines for Transportation and Traffic, a significant impact would occur if the proposed project is not in conformance with the applicable alternative transportation policies in the Mobility Element.

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

According to the San Diego Regional Bicycle Plan: Riding to 2050, prepared by SANDAG, Mapleview Street/Lake Jennings Park Road, Ashwood Street and Wildcat Canyon Road are the roadways in the project vicinity that are classified as roadways that include Class II bike lanes (SANDAG 2010). Additionally, there are no bus stops within the vicinity of the project site and no bus routes that serve the project site. Implementation of the proposed project would not affect alternative modes of transportation, as development of the proposed project would not change existing roadways or bike lanes within the project vicinity. Further, as stated above, development of the proposed project includes onsite trails bordering the project site to provide residents with opportunities for pedestrian and equestrian activity, as well as to contribute to expansion of or linkage to the County's trail system. Therefore, implementation of the proposed project would not conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities and impacts would be **less than significant**.

2.10.3 Cumulative Impact Analysis

The guidelines for determining the significance of cumulative impacts are based on the same guidelines used to determine project-level impacts, except that the analysis considers the cumulatively considerable effects of impacts from the proposed project in association with other reasonably foreseeable projects and

their expected environmental effects on transportation and traffic. Table 2.10-7 lists all the applicable cumulative projects related to transportation and traffic within the vicinity of the proposed project.

Cumulative impacts would be considerable if the incremental effects of the proposed project would have the potential to combine with the effects of past, present, and probable future projects to create significant impacts. The geographic scope for cumulative impacts associated with transportation and traffic encompasses the community of Lakeside and surrounding areas of unincorporated San Diego County.

Issue 1: Traffic and Level of Service Standards

Due to the nature of the traffic analysis provided in the TIA, cumulative traffic impacts to intersections and roadway segments associated with implementation of the proposed project are discussed in the Near-Term without Project and the Near-Term with Project traffic scenarios below.

Near-Term without Project Traffic Conditions

Intersection Analysis

Figure 2.10-10 illustrates the Near-Term without Project scenario traffic volumes. As shown in Table 2.10-8, all intersections are anticipated to operate at LOS D or better in the Near-Term without Project Condition, except for the following intersections:

- Mapleview Street/SR-67 – LOS E during the AM peak hours and LOS F during the PM peak hours
- Mapleview Street/Maine Avenue – LOS F during the PM peak hours
- Mapleview Street/Ashwood Street – LOS F during the AM peak hours and LOS E during the PM peak hours
- Lake Jennings Park Road/El Monte Road/Julian Avenue – LOS E during both the AM and PM peak hours
- Lake Jennings Park Road/Blossom Valley Road – LOS E during the AM peak hours
- Lake Jennings Park Road/I-8 WB Ramps – LOS F during the PM peak hours
- Lake Jennings Park Road/I-8 EB Off-Ramp/Olde Hwy 80 – LOS F during both the AM and PM peak hours

With the addition of the cumulative projects listed in Table 2.10-7 without implementation of the proposed project, seven of the study intersections would operate at deficient LOS during the AM and PM peak hours under the Near-Term

without Project scenario. Therefore, cumulative impacts would occur at these seven intersections without project implementation.

Roadway Segment Analysis

As shown in Table 2.10-9, all roadway segments are anticipated to continue to operate at an acceptable LOS (LOS D or better), with the exception of the following:

- SR-67 – North of Mapleview Street – LOS F
- Lake Jennings Park Road – between Blossom Valley Road and I-8 – LOS F

With the addition of the cumulative projects listed in Table 2.10-7 without implementation of the proposed project, two of the study area roadway segments would operate at deficient LOS under the Near-Term without Project Scenario. Therefore, cumulative impacts would occur on these two roadway segments without project implementation.

Near-Term with Project Traffic Conditions

Intersection Analysis

Figure 2.10-11 illustrates the Near-Term with Project scenario traffic volumes. As shown in Table 2.10-8, all intersections are anticipated to operate at LOS D or better in the Near-Term with Project Condition, except for the following intersections:

- Mapleview Street/SR-67 – LOS E during the AM peak hours and LOS F during the PM peak hours
- Mapleview Street/Maine Avenue – LOS F during the PM peak hours
- Mapleview Street/Ashwood Street – LOS F during the AM peak hours and LOS E during the PM peak hours
- Lake Jennings Park Road/El Monte Road/Julian Avenue – LOS E during both the AM and PM peak hours
- Lake Jennings Park Road / Blossom Valley Road – LOS E during the AM peak hours
- Lake Jennings Park Road/I-8 WB Ramps – LOS F during the PM peak hours
- Lake Jennings Park Road/I-8 EB Off-Ramp/Olde Hwy 80 – LOS F during both the AM and PM peak hours

However, project impacts are determined based on the project-induced increase in delay to the intersection based on the allowable thresholds. Based on the County Guidelines for Transportation and Traffic significance criteria, shown in Table 2.10-5, the following two intersections were determined to operate at

deficient LOS because the addition of the project's traffic volumes exceeded the allowable threshold for increases in the intersection delay time:

- Lake Jennings Park Road/El Monte Road/Julian Avenue
- Lake Jennings Park Road/I-8 Westbound Ramps

Therefore, the proposed project in would result in a **cumulatively considerable significant impact (Impact TR-3a)** at these two intersections under the Near-Term with Project scenario.

Roadway Segment Analysis

As shown in Table 2.10-9, all roadway segments are anticipated to continue to operate at an acceptable LOS (LOS D or better) in the Near-Term with Project Condition, with the exception of the following:

- SR-67 – North of Mapleview Street – LOS F
- Lake Jennings Park Road – between Blossom Valley Road and I-8 – LOS F

However, for roadway segments that exceed the allowable thresholds, project impacts are determined based on the project's contribution to the roadway's total traffic trips. Based on the County Guidelines for Transportation and Traffic significance criteria shown in Table 2.10-4, a significant cumulative impact was identified on Lake Jennings Park Road, between Blossom Valley Road and I-8, since the proposed project would generate additional trips which would result in an increase of 1.3 V/C, which exceeds the threshold of an increase of 0.02 V/C or greater. Therefore, the proposed project would result in a **cumulatively considerable significant impact (Impact TR-3b)** at this roadway segment under the Near-Term with Project scenario.

Issue 2: Congestion Management

Due to the nature of the traffic analysis provided in the TIA, cumulative traffic impacts to intersections and roadway segments associated with implementation of the proposed project are included within the Near-Term with Project Scenario. As shown in Table 2.10-8 and Table 2.10-9, under the Near-Term with Project scenario, the following intersections and roadways would have impacts with implementation of the proposed project:

Intersections

- Lake Jennings Park Road/El Monte Road/Julian Avenue – LOS E during both the AM and PM peak hours and an increase in delay of 1.3 seconds and 3.3 seconds, respectively.
- Lake Jennings Park Road/Blossom Valley Road – LOS E during the AM peak hours and an increase in delay of 0.3 seconds.

- Lake Jennings Park Road/I-8 WB Ramps – LOS F during the PM peak hours and an increase in delay of 10.6 seconds.

Roadway Segments

- Lake Jennings Park Road – between Blossom Valley Road and I-8 – LOS F and an increase of V/C of 0.02

Based on the significance criteria shown in Table 2.10-10 and data presented in Table 2.10-8 and 2.10-9, the intersections at Lake Jennings Park Road/El Monte Road/Julian Avenue during the PM peak hours and at Lake Jennings Park Road/I-8 WB Ramps during the PM peak hour would exceed the allowable thresholds for congestion management for intersections within the County by having an increase in delay of 3.3 and 10.6 seconds, respectively. Additionally, with the addition of trips generated by the proposed project the roadway segment at Lake Jennings Park Road, between Blossom Valley Road and I-8, would result in an increase of 0.02 V/C, which is considered a significant increase as it exceeds the allowable thresholds for congestion management for roadway segments within the County Therefore, the proposed project would result in **cumulatively considerable significant impacts (Impact T-4)** related to congestion management at the two intersections and roadway segment mentioned above under the Near-Term with Project scenario.

Issue 3: Hazardous Design Features

A cumulative impact related to hazardous design features would occur if the project, in combination with other cumulative projects, contributed traffic to existing roadways with design hazards or resulted in a roadway change which created a new roadway hazard for cumulative traffic. The surrounding roadways within the study area are typical of rural settings with curves and bends, where drivers from cumulative projects in conjunction with the proposed project would not be required to navigate extraordinary roadway design. All existing roadways in the project area comply with the required roadway design standards, and do not pose any hazards to cumulative traffic. Further, the project would not improve any existing public roadways and would not create a new roadway hazard for vehicles that may be leaving the project site or surrounding developments. Further, according to the sight Distance Letter prepared for the proposed project (Chang 2016), the prevailing speed is not known and the speed limit is posted at 40 mph for El Monte Road. Based on the County's sight distance requirement of 100 feet per 10 mph, the proposed project would need a minimum site distance of 350 feet from the proposed egress access to be in compliance. The sight distance at the proposed project's outbound access exceeds the 350-foot requirement in both directions. Specifically, the sight distance is approximately 500 feet to the east and exceeds 500 feet to the west (Chang 2016). Therefore, the proposed project would not create a hazard with outbound trucks moving at slower speeds. Therefore, impacts associated with hazardous design features **would not be considered cumulatively considerable.**

Issue 4: Alternative Transportation Facilities

A cumulative impact related to alternative transportation would occur if development of the proposed project site and surrounding developments in the community of Lakeside and surrounding unincorporated San Diego County would not provide adequate alternative transportation facilities, such as bus routes and stops, bicycle lanes, and pedestrian facilities. As discussed in Section 2.10.2.6, Issue 6: Alternative Transportation Facilities, the proposed project would not conflict with any adopted policies, plans, or programs or otherwise degrade the safety performance of alternative transportation facilities. Further, implementation of the proposed project supports alternative transportation facilities, as the project would develop onsite trails bordering the project site to provide residents with opportunities for pedestrian and equestrian activity as well as to contribute to expansion of and linkage to the County's trail system. Therefore, impacts associated with alternative transportation **would not be considered cumulatively considerable.**

2.10.4 Significance of Impacts Prior to Mitigation

The following significant impacts related to transportation and traffic would occur with project implementation:

Impact TR-1a: Implementation of the proposed project would result in a significant impact at the intersection of Lake Jennings Park Road/El Monte Road/Julian Avenue - LOS E during the AM peak hour.

Impact TR-1b: Implementation of the proposed project would result in a significant impact at the roadway segment of Lake Jennings Park Road, between Blossom Valley Road and I-8.

Impact TR-2: Implementation of the proposed project would result in a significant impact associated with congestion management at the roadway segment at Lake Jennings Park Road, between Blossom Valley Road and I-8.

Impact TR-3a: Implementation of the proposed project would result in cumulatively considerable significant impacts at the intersections of Lake Jennings Park Road/El Monte Road/Julian Avenue and Lake Jennings Park Road/I-8 Westbound Ramps.

Impact TR-3b: Implementation of the proposed project would result in a cumulatively considerable significant impact at the roadway segment of Lake Jennings Park Road, between Blossom Valley Road and I-8.

Impact TR-4: Implementation of the proposed project would result in cumulatively considerable significant impacts associated with congestion management at the intersections at Lake Jennings Park Road/El Monte Road/Julian Avenue during the PM peak hours and at Lake Jennings Park

Road/I-8 WB Ramps and at the roadway segment at Lake Jennings Park Road, between Blossom Valley Road and I-8.

2.10.5 Mitigation

A feasible mitigation measure must reduce the significant impact to below the thresholds (pre-project + allowable increase) or the impact will be considered significant and unmitigated. Note that both the intersection at Lake Jennings Park Road/El Monte Road/Julian Avenue (Impacts TR-1, TR-3, and TR-5) and the roadway segment of Lake Jennings Park Road between Blossom Valley Road and I-8 (Impacts TR-1b, TR-2, and TR-4) would result in both a significant direct impact and a significant cumulative impact. To mitigate each impact, a single mitigation measure would be implemented to mitigate both the direct and cumulative significant impacts for each intersection or segment.

M-TR-1: Intersection – Lake Jennings Park Road/El Monte Road/Julian Avenue

The following mitigation measures shall be implemented in order to reduce both the direct and cumulative significant impacts at this intersection to less than significant:

- Project Applicant shall pay for the installation of a traffic signal;
- Restriping the intersection on the eastbound and westbound approaches to include permissive signal phasing with shared left-thru and dedicated right-turn lanes;
- Reduce curb return radii for right-turn movements to improve pedestrian and bicycle mobility. To promote bicycle mobility, Class II bike lanes are proposed on El Monte Road/Julian Avenue at this intersection; and
- Pay the appropriate Traffic Impact Fee (TIF) amount towards the County TIF program to mitigate for its cumulative significant impact.

M-TR-2: Lake Jennings Park Road, between Blossom Valley Road and I-8

The following mitigation measures shall be implemented in order to reduce both the direct and cumulative significant impacts at this roadway segment to less than significant:

- Restripe Lake Jennings Park Road between Blossom Valley Road and I-8 WB off-ramp to include two southbound travel lanes that would increase roadway capacity.
- Pay the appropriate TIF amount towards the County TIF program to mitigate for its cumulative significant impact.

M-TR-3: Lake Jennings Park Road/I-8 WB Ramps

The following mitigation measures shall be implemented in order to reduce cumulative significant impacts at this intersection to less than significant:

- Pay the appropriate TIF amount towards the County TIF program to mitigate for its cumulative significant impact. Based on the County of San Diego TIF Transportation Needs Assessment Report (San Diego County 2012), this intersection has been included in the list of TIF eligible interchange improvements.

Caltrans is currently reviewing proposed improvements at this interchange which would include restriping the undercrossing to four lanes with Class II bike lanes, traffic signals or roundabouts at the ramp intersections. However, a final design has not been selected or approved at this time. The TIA in Appendix U contains the Caltrans conceptual drawing of the proposed improvements on the Lake Jennings Park Road/I-8 WB ramps interchange.

2.10.6 Conclusion

The TIA evaluated three traffic study scenarios to assess the traffic volumes that the project would add to the existing and near-term traffic conditions for intersections and roadway segments in the project vicinity. Based on the analysis provided in the TIA, project-related traffic would result in significant direct impacts to two study areas (one intersection and one roadway segment) and significant cumulative impacts to three study areas (two intersections and one roadway segment). Mitigation measure **M-TR-1** would reduce direct and cumulative significant impacts at the intersection of Lake Jennings Park Road/El Monte Road/Julian Avenue; Mitigation measure **M-TR-2** would reduce direct and cumulative significant impacts along Lake Jennings Park Road, between Blossom Valley Road and I-8 roadway segment; and mitigation measure **M-TR-3** would reduce cumulative significant impacts at the intersection of Lake Jennings Park Road/I-8 WB Ramps. With the implementation of the identified mitigation measures, potential traffic impacts related to LOS standards and congestion management would be reduced to a level **less than significant with mitigation**. Development of the proposed project would result in **less than significant** impacts related to hazardous design features, and alternative transportation.

Table 2.10-1: Existing Traffic Volumes

Street Segment	ADT[a]
SR-67	
North of Mapleview Street	26,550
South of Mapleview Street	39,750
Mapleview Street/Lake Jennings Park Road	
West of SR-67	5,470
SR-67 to Maine Avenue	24,710
Maine Avenue to Vine Street	22,040
Vine Street to Ashwood Street	23,750
Ashwood Street to El Monte Road	10,540
El Monte Road to Blossom Valley Road	13,060
Blossom Valley Road to I-8	21,000
El Monte Road	
East of Lake Jennings Park Road	2,500

a. Average Daily Traffic (ADT) Volumes counts were conducted by LLG on March 17, 2015.
Source: LLG 2018.

Table 2.10-2: Existing Intersection Operations

Intersection	Control Type	Peak Hour	Existing	
			Delay[a]	LOS[b]
1. Mapleview St/SR-67	Signal	AM	49.1	D
		PM	158.8	**F**
2. Mapleview St/Maine Ave	Signal	AM	41.6	D
		PM	117.2	**F**
3. Mapleview St/Vine St	TWSC[c]	AM	11.9	B
		PM	15.5	C
4. Mapleview St/Ashwood St	Signal	AM	80.5	**F**
		PM	54.4	D
5. Lake Jennings Park Rd/El Monte Rd/ Julian Ave	AWSC[d]	AM	34.2	D
		PM	22.9	C
6. El Monte Rd/Project Driveway #1	TWSC[c]	AM	DNE	–
		PM	DNE	–
7. El Monte Rd/Project Driveway #2	TWSC[c]	AM	DNE	–
		PM	DNE	–
8. Lake Jennings Park Rd/Blossom Valley Rd	Signal	AM	35.7	D
		PM	22.7	C
9. Lake Jennings Park Rd/I-8 WB Ramps	TWSC[c]	AM	16.6	C
		PM	25.0	D
10. Lake Jennings Park Rd/I-8 EB Off-Ramp/ Olde Hwy 80	AWSC[d]	AM	32.5	D
		PM	57.6	**F**

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. TWSC – Two-Way Stop-Controlled intersection. Minor street delay reported.
d. AWSC – All-Way Stop-Controlled intersection. Overall intersection delay reported.

DNE = does not exist.
Source: LLG 2018.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	**E**	35.1 to 50.0	**E**
≥ 80.1	**F**	≥ 50.1	**F**

Table 2.10-3: Existing Street Segment Operations

Street Segment	Functional Classification	Capacity (LOS E) [a]	ADT [b]	LOS [c]
SR-67				
North of Mapleview Street	Two-lane Prime Arterial [d]	20,000	26,550	**F**
South of Mapleview Street	Four-lane Expressway [e]	53,000	39,750	C
Mapleview Street/Lake Jennings Park Road				
West of SR-67	2.1E Community Collector *no Median*	16,200	5,470	C
SR-67 to Maine Avenue	4.1B Major Road *with Intermittent Turn Lanes*	34,200	24,710	C
Maine Avenue to Vine Street	4.1B Major Road *with Intermittent Turn Lanes*	34,200	22,040	B
Vine Street to Ashwood Street	4.1B Major Road *with Intermittent Turn Lanes*	34,200	23,750	C
Ashwood Street to El Monte Road	4.1B Major Road *with Intermittent Turn Lanes*	34,200	10,540	A
El Monte Road to Blossom Valley Road	Three-lane Community Collector *with Intermittent Turn Lanes*[f]	23,500	13,060	C
Blossom Valley Road to I-8	2.2C Light Collector *with Intermittent Turn Lanes*	19,000	21,000	**F**
El Monte Road				
East of Lake Jennings Park Road	2.3C Minor Collector *no Median*	8,000	2,500	B

a. Capacities based on County of San Diego Roadway Classification Table.
b. Average Daily Traffic Volumes.
c. Level of Service.
d. Two-lane Prime Arterial capacity of 20,000 interpolated from six-lane Prime Arterial based on SANTEC roadway classifications.
e. Four-lane Expressway capacity of 53,000 interpolated from six-lane Expressway at 80,000 based on SANTEC roadway classifications.
f. Three-lane Community Collector capacity of 23,500 interpolated between four-lane Boulevard with intermittent turn lanes and two-lane Community Collector with intermittent turn lanes based on County of San Diego roadway classifications.

Source: LLG 2018.

Table 2.10-4: Measures of Significant Project Impacts to Congestion on Mobility Element 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

1. By adding proposed project trips to all other trips from a list of projects, this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes additional trips must mitigate a share of the cumulative impacts.
2. 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.

Source: San Diego County, 2011a.

Table 2.10-5: 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 or less	20 or less peak hour trips on a critical movement
LOS F	Either a Delay of 1 second, or 5 peak hour trips or less on a critical movement	5 or less peak hour trips on a critical movement

1. A critical movement is an intersection movement (right-turn, left-turn, and through-movement) that experiences excessive queues, which typically operate at LOS F.
2. By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project is responsible for mitigating its share of the cumulative impact.
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 LOS, when such traffic uses a significant amount of remaining road capacity.
4. For determining significance at signalized intersections with LOS F conditions, the analysis must evaluate both the delay ***and*** the number of trips on a critical movement; exceedance of either criteria results in a significant impact.

San Diego County, 2011a.

Table 2.10-6: Project Trip Generation

			Daily Trips		AM Peak Hour				PM Peak Hour				
						Split		Volume			Split		Volume
Use	**Quantity**	**PCE**	**Rate**	**ADT[a]**	**% of ADT**	**In : Out**		**In**	**Out**	**% of ADT**	**In : Out**		**In**	**Out**
Heavy Veh (trucks)[b]	157	2.5	2.0/vehicle	785	15%[c]	50%	: 50%	59	59	15%[c]	50%	: 50%	59	59
Light Veh (Employees)	12	1	2.0/vehicle	24	40%[d]	90%	: 10%	9	1	40%[d]	10%	: 90%	1	9
Light Veh (Vendors/Misc.)[e]	2	1	2.0/vehicle	4	50%	50%	: 50%	1	1	50%	50%	: 50%	1	1
Subtotal				***813***				***69***	***61***				***61***	***69***

a. ADT – Average daily traffic.
b. Heavy vehicle traffic includes trucks carrying loads of construction aggregate, fuel, parts, etc.
c. The assumed percent of ADT to occur during the peak hour for truck traffic is 15 percent.
d. 40 percent of employee trips are anticipated to enter and 40 percent to exit the site during the peak periods.
e. Light vehicle traffic includes vehicles used by employees and vendors, and miscellaneous visitors such as small service vehicles for fuel, supplies, and miscellaneous services.

Source: LLG 2018.

Table 2.10-7: Cumulative Projects

Project Name	Type of Development	Project Size	ADT
1. Lake Jennings Marketplace (TM 5590)	Shopping Center Gasoline w/Food Mart and Car Wash	76,100 SF 12 pumps	4,683
2. Foothills Christian School (MUP72-650)	Elementary	3,000 SF	40
3. Ashwood II Condo conversion (TM 5356)	Condominium	9 DU	72
4. Greenhills Ranch (TM 5140,TM 5563)	Estate Residential	60 DU	720
5. Adlai Ranch Estates (TM 5186)	Single-Family Detached	21 DU	210
6. Rios Canyon Ranch (TM 5218)	Estate Residential	107 DU	1,284
7. Crest/Dehesa - Lakeside Ranch (TM 5317)	Estate Residential	123 DU	1,476
8. Ashwood I Condo conversion (TM 5376)	Condominium	67 DU	536
9. Settler's Point (TM 5423)	Multi-Family Residential	266 DU	2,128
10. Carroll (TMP 20530)	Multi-Family Residential	35 DU	207
11. 7-11 Inc. (SP00-003)	Convenience Market (with gasoline pumps)	1 space	400
12. Currier (SP03-031)	Office Warehouse	3,000 SF 3,000 SF	66
13. Payton Hardware (SP98-011)	Hardware Store	10 TSF	600
14. Lakeside Tractor Supply Co. (MUP 14-015)	Specialty Store Storage/Display	19,169 SF 17,958 SF	857
15. P&P Saksa (TPM 20128)	Single-Family Detached	4 DU	36
16. Crestlake (TM 5082)	Single-Family Detached	84 DU	840
17. Lakeside Burger King (SP 97-041)	Fastfood (with drive-thru)	3,000 SF	2,080
18. Ortega Construction (SP 98-031)	Office	1,000 SF	28
19. Glenview Glass and Screen (SP 98-019)	Office	3,000 SF	50
20. Rieken (SP 99-035)	Office	7,000 SF	136
21. Magnolia Courts (TM 5541)	Single-Family Detached	21 DU	210
22. High Meadow Ranch (TM 3702)	Single-Family Detached	145 DU	1,450
23. TM 5286	Single-Family Detached	13 DU	130

Table 2.10-7: Cumulative Projects

Project Name	Type of Development	Project Size	ADT
24. TM 5191	Single-Family Detached	32 DU	320
25. Blossom Valley Ranch (TM 5197)	Single-Family Detached	25 DU	250
26. TM 5539	Single-Family Detached	8 DU	80
27. Oakmont II (TM 5421)	Single-Family Detached	20 DU	200
28. Flinn Springs Estates (TM 5470)	Single-Family Detached	15 DU	150
29. Oak Creek RV (MUP 85-079)	Campground/RV Park	84 spaces	336
30. Sunny Ridge Estates (TM 5436)	Single-Family Detached	13 DU	130
31. Eniss Sand Mine	Trucks Staff Vehicles	52 trucks 11 person	251
32. Turner Sand Mine	Trucks Staff Vehicles	61 trucks 8 person	276
33. Fanita Ranch	Residential	3,000 DU	30,000
34. Braverman Drive Residential	Single-Family Detached	83 DU	830

1. LLG coordinated with the County of San Diego in June 2015 regarding the above cumulative project information.
2. DU – dwelling unit.
3. SF – square feet.
4. ADT – average daily traffic

Source: LLG 2018

Table 2.10-8: Existing and Near-Term Intersection Operations

Intersection	Control Type	Peak Hour	Existing		Existing with Project			Impact Type	Near-Term without Project		Near-Term with Project			Impact Type
			Delay[a]	LOS[b]	Delay	LOS	Δ[c]		Delay	LOS	Delay	LOS	Δ	
1. Mapleview St/SR-67	Signal	AM	49.1	D	50.8	D	1.7	None	55.4	E	55.6	E	0.2	None
		PM	158.8	F	159.0	F	0.2	None	197.7	F	197.8	F	0.1	None
2. Mapleview St/Maine Ave	Signal	AM	41.6	D	46.5	D	4.9	None	48.4	D	51.8	D	3.4	None
		PM	117.2	F	117.5	F	0.3	None	136.4	F	136.5	F	0.1	None
3. Mapleview St/Vine Street	TWSC[d]	AM	11.9	B	12.1	B	–[f]	None	12.2	B	12.4	B	–[f]	None
		PM	15.5	C	15.8	C	–[f]	None	16.1	C	16.4	C	–[f]	None
4. Mapleview S/Ashwood St	Signal	AM	80.5	F	80.6	F	0.1	None	83.9	F	84.5	F	0.6	None
		PM	54.4	D	54.7	D	0.3	None	55.9	E	56.0	E	0.1	None
5. Lake Jennings Park Rd/ El Monte Rd/Julian Ave	AWSC[e]	AM	34.2	D	**35.1**	**E**	**30[g]**	**Direct**	**35.5**	**E**	**36.8**	**E**	**30[g]**	**Cumulative**
		PM	22.9	C	32.5	D	–[f]	None	**42.3**	**E**	**45.6**	**E**	**30[g]**	**Cumulative**
6. El Monte Rd/Project Driveway #1	TWSC[d]	AM	DNE	–	11.5	B	–[f]	None	DNE	–	11.5	B	–[f]	None
		PM	DNE	–	11.5	B	–[f]	None	DNE	–	11.5	B	–[f]	None
7. El Monte Rd/Project Driveway #2	TWSC[d]	AM	DNE	–	10.6	B	–[f]	None	DNE	–	10.6	B	–[f]	None
		PM	DNE	–	10.1	B	–[f]	None	DNE	–	10.1	B	–[f]	None
8. Lake Jennings Park Rd/ Blossom Valley Road	Signal	AM	35.7	D	36.0	D	0.3	None	62.4	E	62.7	E	0.3	None
		PM	22.7	C	23.5	C	0.8	None	34.0	C	37.2	D	3.2	None
9. Lake Jennings Park Rd/ I-8 WB Ramps	TWSC[d]	AM	16.4	C	17.9	C	1.3	None	21.5	C	23.6	C	2.1	None
		PM	25.0	D	27.1	D	2.1	None	**67.6**	**F**	**78.2**	**F**	**10.6**	**Cumulative**
10. Lake Jennings Park Rd/ I-8 EB Off-Ramp/Olde Hwy 80	AWSC[e]	AM	32.5	D	34.0	D	1.5	None	50.5	F	51.0	F	0.5	None
		PM	57.6	F	57.8	F	0.2	None	70.0	F	70.1	F	0.1	None

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. "Δ" denotes the project-induced increase in delay for signalized intersections and project traffic added to the critical movement for unsignalized intersections operating at LOS E or F only based on County and Caltrans criteria with the exception of unsignalized Caltrans intersection, intersection delay was used.
d. TWSC – Two-Way Stop-Controlled intersection. Minor street delay reported.
e. AWSC – All-Way Stop-Controlled intersection. Overall intersection delay reported.
f. Project trips added to the critical movement not shown as intersection operates at LOS C or better.
g. Project trips added to the critical movement as intersection operates at LOS E or worse.

BOLD typeface indicates a potentially significant impact.
DNE = does not exist.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

Table 2.10-9: Existing and Near-Term Roadway Segment Operations

Street Segment	Functional Classification	Capacity (LOS E) [a]	Existing		Existing + Project			Impact Type	Near-Term without Project		Near-Term with Project			Impact Type
			ADT [b]	LOS [c]	ADT	LOS	Δ [d]		ADT	LOS	ADT	LOS	Δ	
SR-67														
North of Mapleview Street	Two-lane Prime Arterial [e]	20,000	26,550	F	26,600	F	0.002	None	29,980	F	30,030	F	0.003	None
South of Mapleview Street	Four-lane Expressway [f]	53,000	39,750	C	40,130	D	0.007	None	43,560	D	43,940	D	0.007	None
Mapleview Street/Lake Jennings Park Road														
West of SR-67	2.1E Community Collector *no Median*	16,200	5,470	C	5,470	C	–[g]	None	5,480	C	5,480	C	–[g]	None
SR-67 to Maine Avenue	4.1B Major Road *with Intermittent Turn Lanes*	34,200	24,710	C	25,130	C	–[g]	None	25,810	C	26,230	C	–[g]	None
Maine Avenue to Vine Street	4.1B Major Road *with Intermittent Turn Lanes*	34,200	22,040	B	22,460	B	–[g]	None	22,950	C	23,370	C	–[g]	None
Vine Street to Ashwood Street	4.1B Major Road *with Intermittent Turn Lanes*	34,200	23,750	C	24,170	C	–[g]	None	24,660	C	25,080	C	–[g]	None
Ashwood Street to El Monte Road	4.1B Major Road *with Intermittent Turn Lanes*	34,200	10,540	A	10,960	A	–[g]	None	12,010	A	12,430	A	–[g]	None
El Monte Road to Blossom Valley Road	Three-lane Community Collector *with Intermittent Turn Lanes* [h]	23,500	13,060	C	13,480	C	–[g]	None	15,190	C	15,610	C	–[g]	None
Blossom Valley Road to I-8	2.2C Light Collector *with Intermittent Turn Lanes*	19,000	**21,000**	**F**	**21,420**	**F**	**420**	**Direct**	**25,090**	**F**	**25,510**	**F**	**420**	**Cumulative**
El Monte Road														
East of Lake Jennings Park Road	2.3C Minor Collector *no Median*	8,000	2,500	B	3,320	B	–[g]	None	2,510	B	3,700	B	–[g]	None

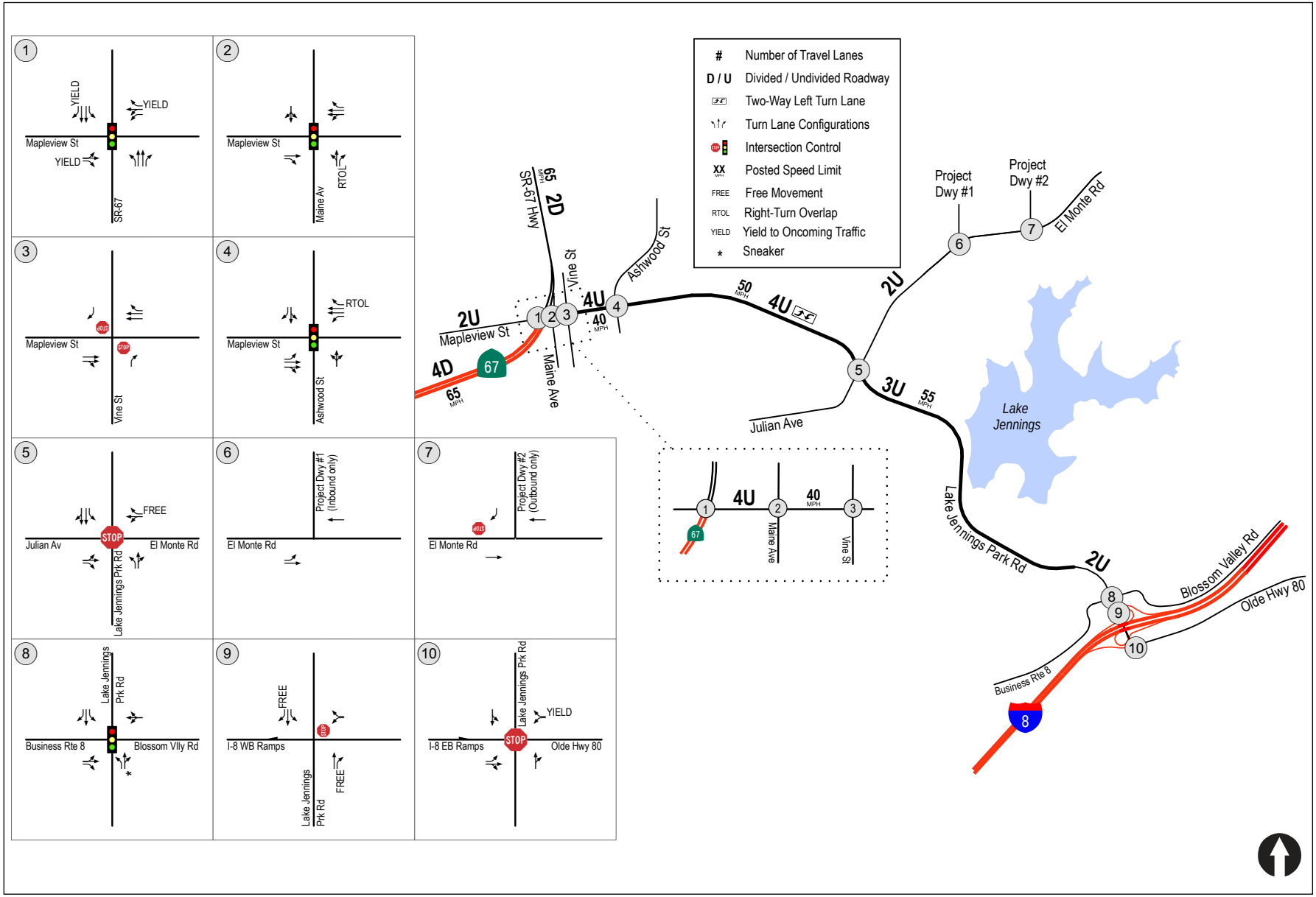
a. Capacities based on County of San Diego Roadway Classification Table.
b. ADT - Average Daily Traffic Volumes.
c. LOS - Level of Service.
d. "Δ" denotes the project-induced increase in ADT or V/C based on County/Caltrans criteria.
e. Two-lane Prime Arterial capacity of 20,000 interpolated from six-lane Prime Arterial based on SANTEC roadway classifications.
f. Four-lane Expressway capacity of 53,000 interpolated from six-lane Expressway at 80,000 based on SANTEC roadway classifications.
g. Project trips added to the street segment not shown as segment operates at LOS C or better.
h. Three-lane Community Collector capacity of 23,500 interpolated between four-lane Boulevard with intermittent turn lanes and two-lane Community Collector with intermittent turn lanes based on County of San Diego roadway classifications.

Bold typeface indicates LOS E or worse.

Table 2.10-10: Traffic Impact Significant Thresholds

	Allowable Increase Due to Project Impacts[b]	
LOS with Project[a]	Roadway Segments V/C[c]	Intersections Delay (sec.)[d]
D/E/F	0.02	2

a. All LOS measurements are based upon HCM procedures for peak-hour conditions. However, V/C ratios for Roadway Segments may be estimated on an ADT/24-hour traffic volume basis. The acceptable LOS for roadways and intersections is generally "D" ("C" for undeveloped or not densely developed locations per jurisdiction definitions).
b. If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are deemed to be significant. These impact changes may be measured from appropriate computer programs or expanded manual spreadsheets. The project applicant shall then identify feasible mitigations (within the Traffic Impact Study [TIS] report) that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note a above), the project applicant shall be responsible for mitigating significant impact changes.
c. V/C = volume to capacity ratio
d. Delay = Average stopped delay per vehicle measured in seconds for intersections.

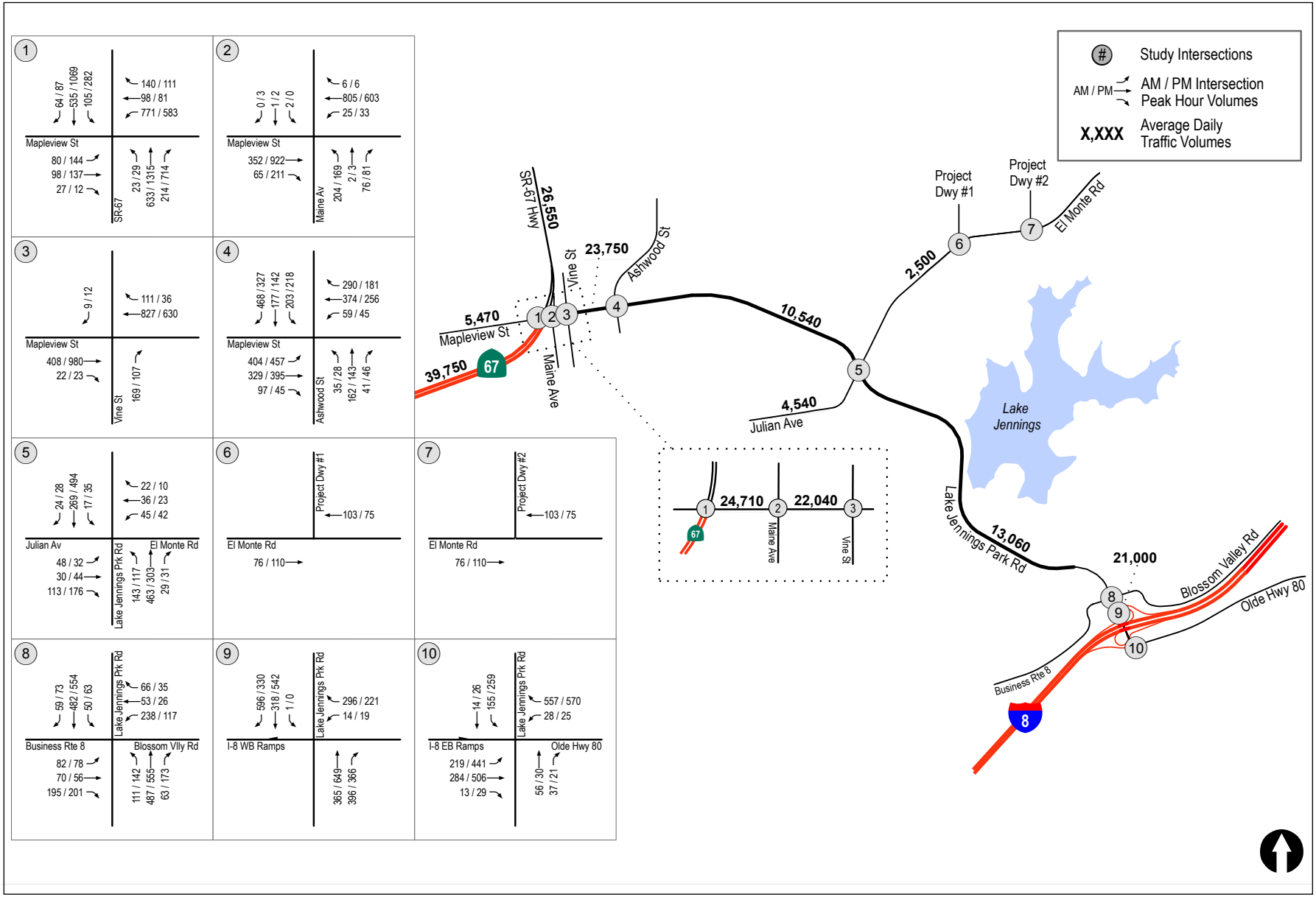


SOURCE: Linscott Law & Greenspan Engineers

El Monte Sand Mining Project . 140957

Figure 2.10-1

Existing Circulation System



SOURCE: Linscott Law & Greenspan Engineers

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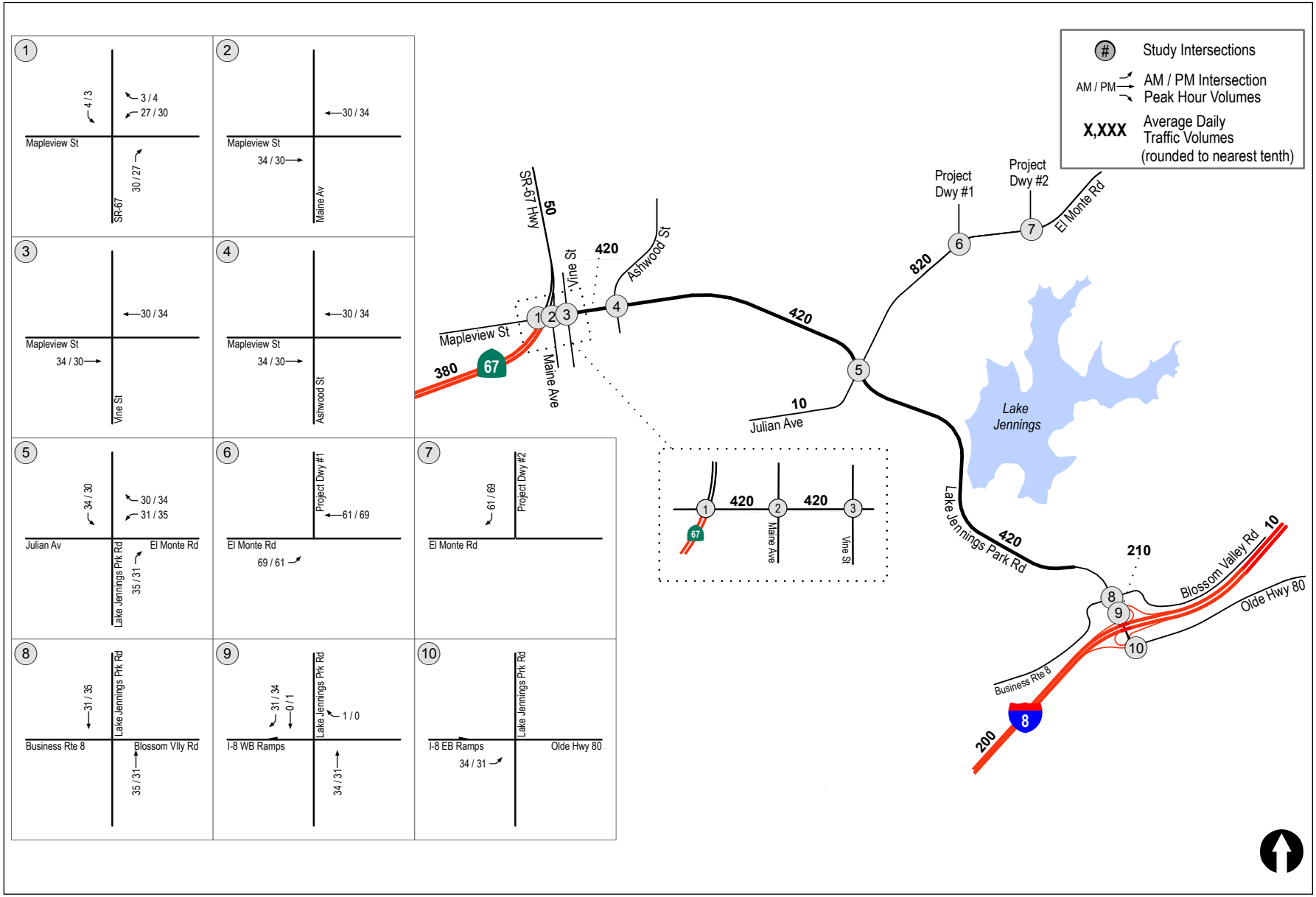
Figure 2.10-2

Existing Traffic Volumes



SOURCE: Linscott Law & Greenspan Engineers

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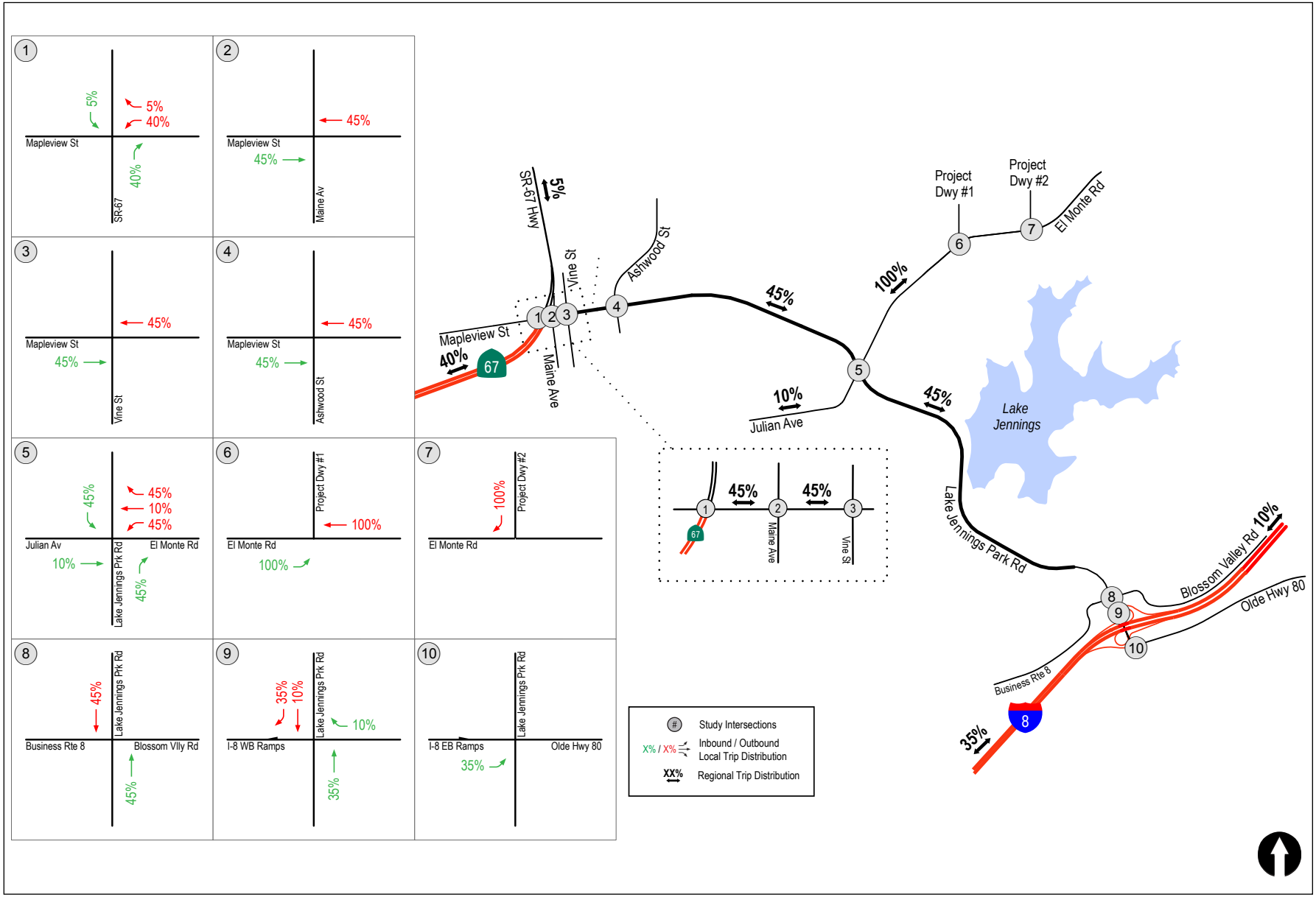
Figure 2.10-3

Project Total Traffic Volumes



SOURCE: Linscott Law & Greenspan Engineers

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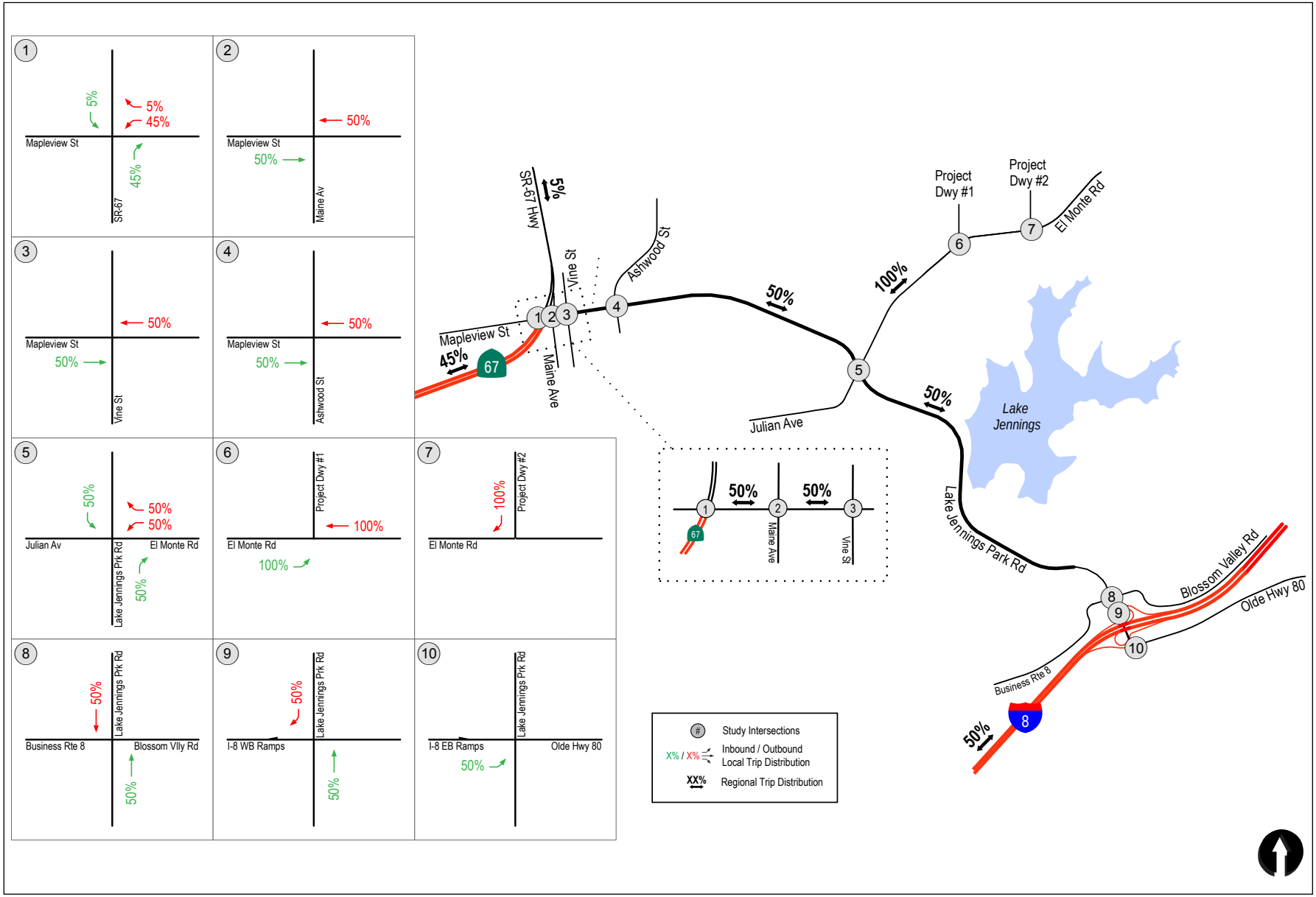
Figure 2.10-4

Project Traffic Distribution for Light Vehicles

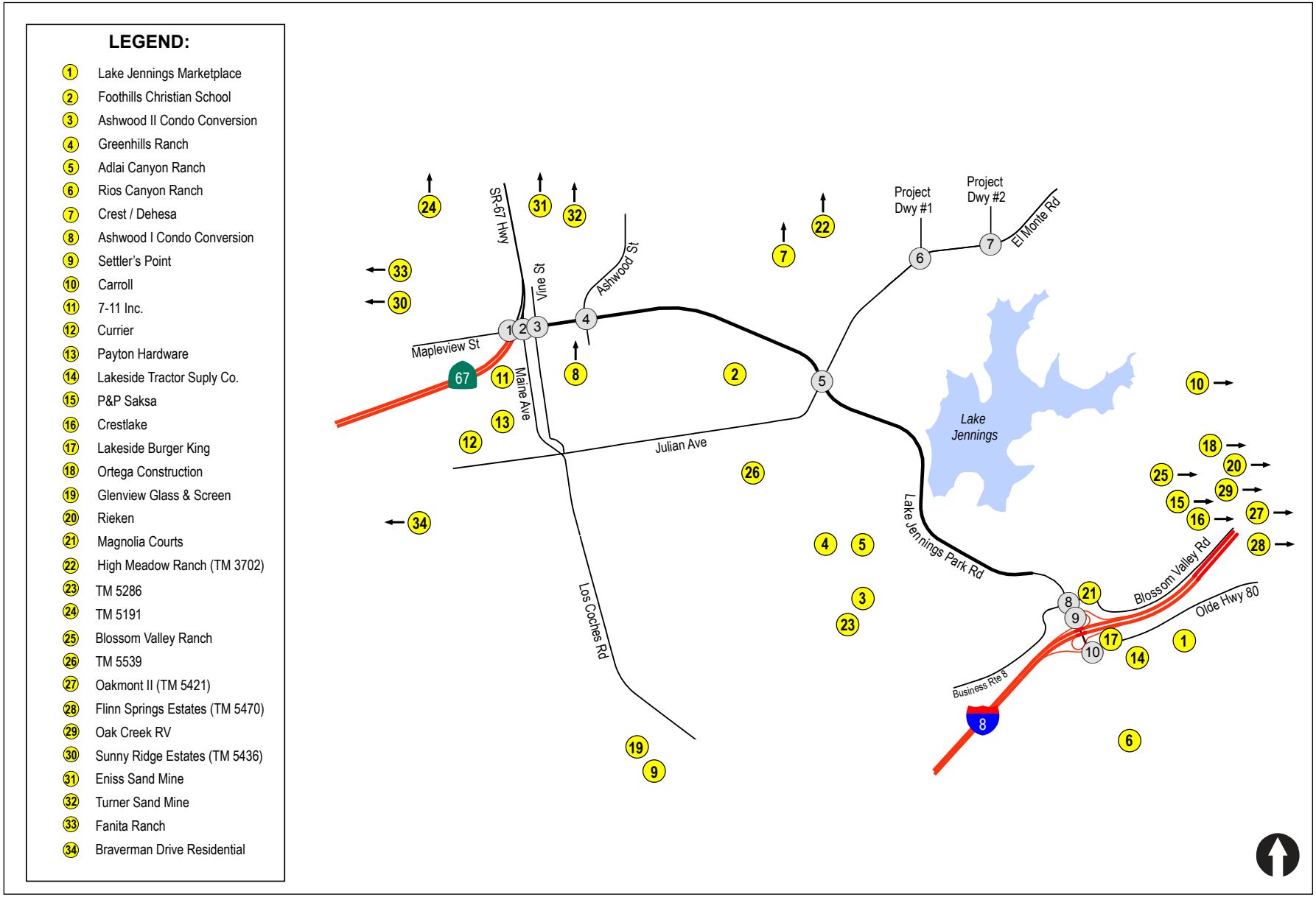


SOURCE: Linscott Law & Greenspan Engineers

El Monte Sand Mining Project . 140957

Figure 2.10-5

Project Traffic Distribution for Heavy Vehicles



SOURCE: Linscott Law & Greenspan Engineers

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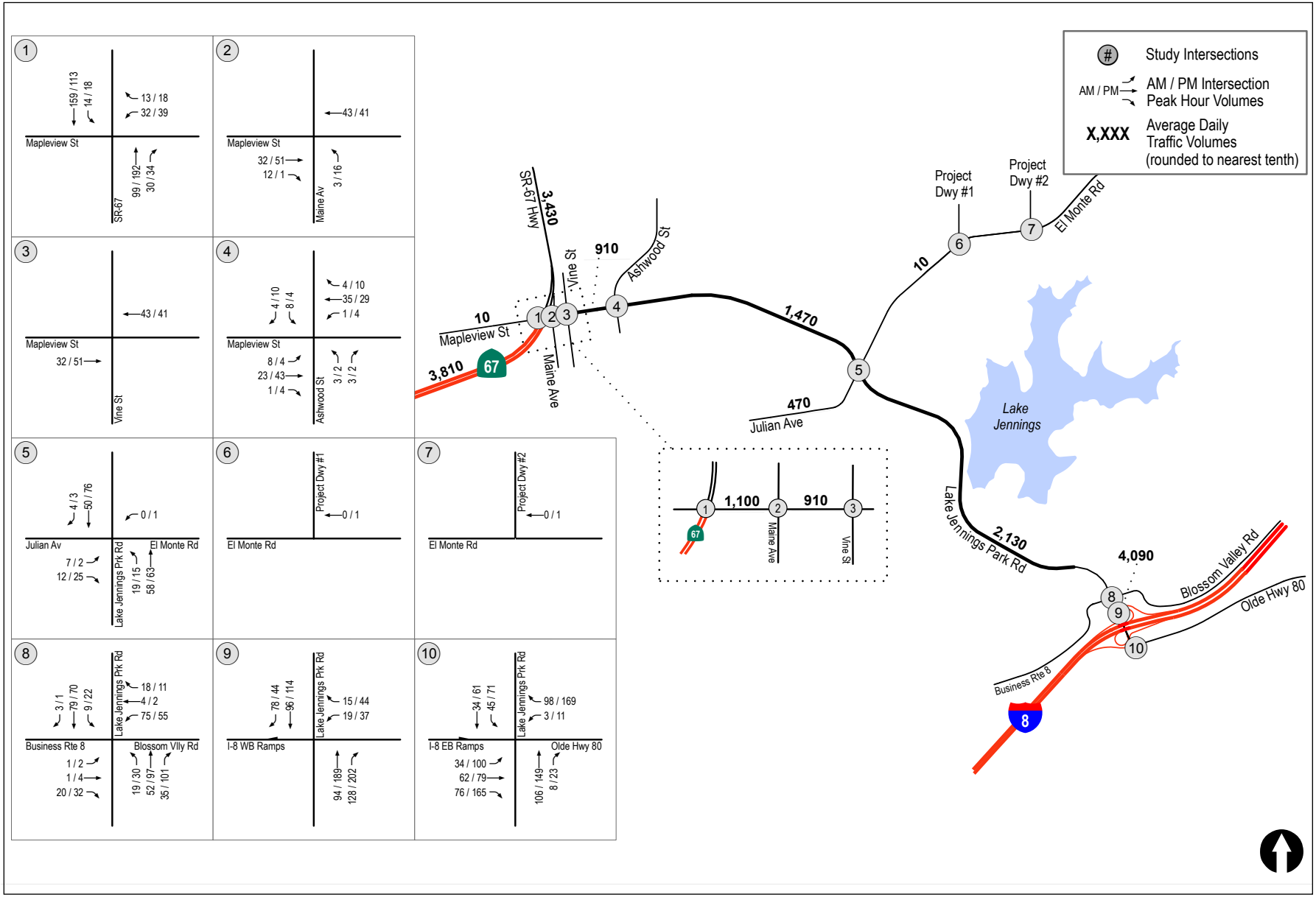
Figure 2.10-6
Cumulative Projects



SOURCE: Linscott Law & Greenspan Engineers

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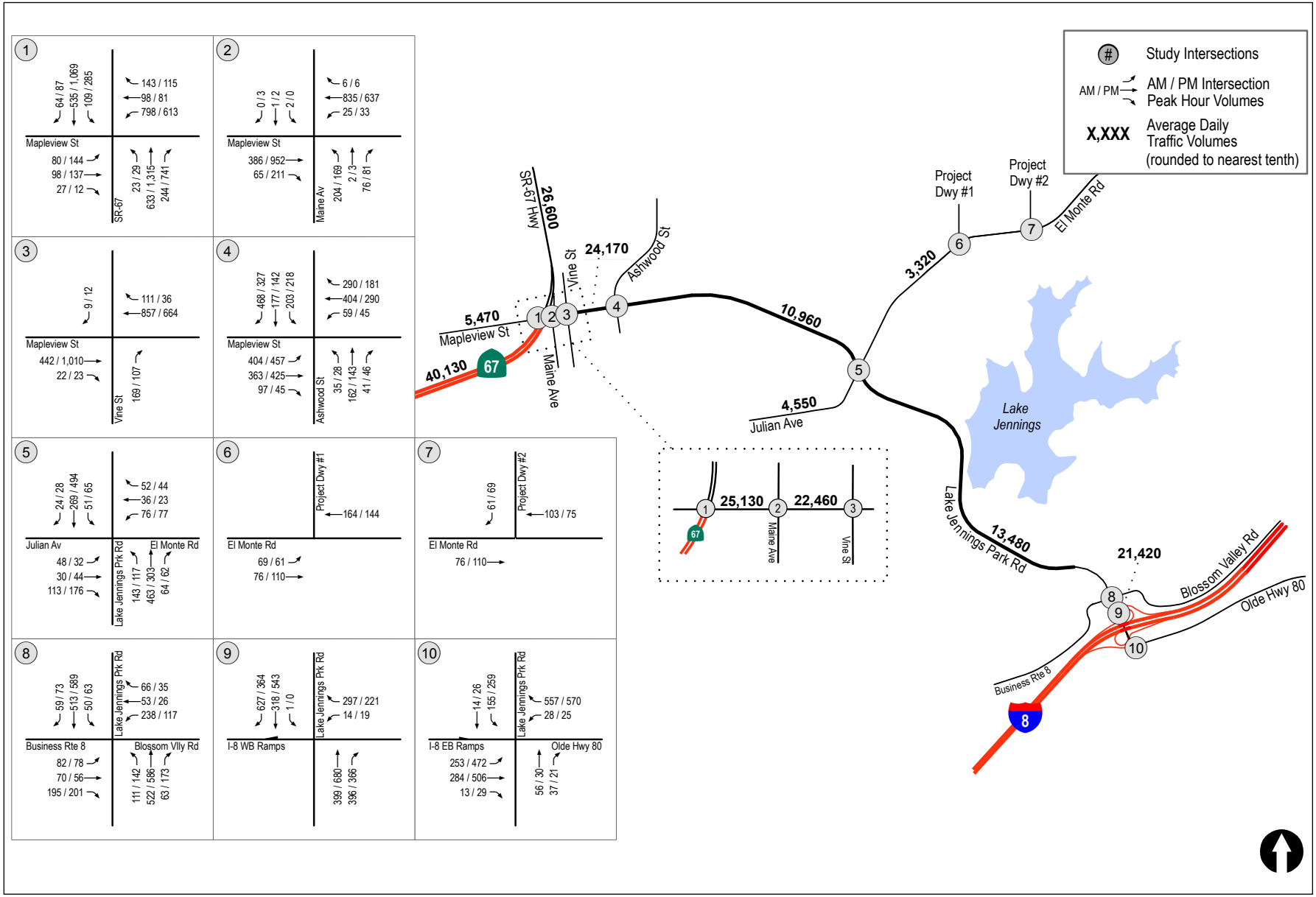
Figure 2.10-7

Cumulative Projects Traffic Volumes

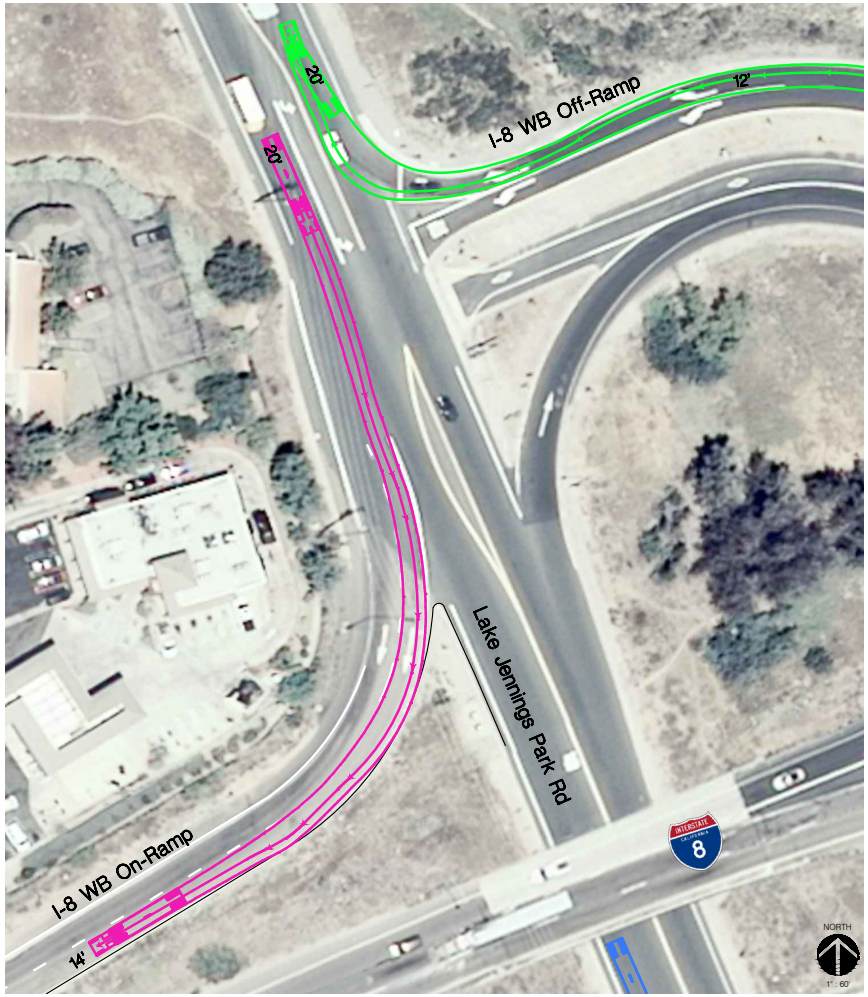


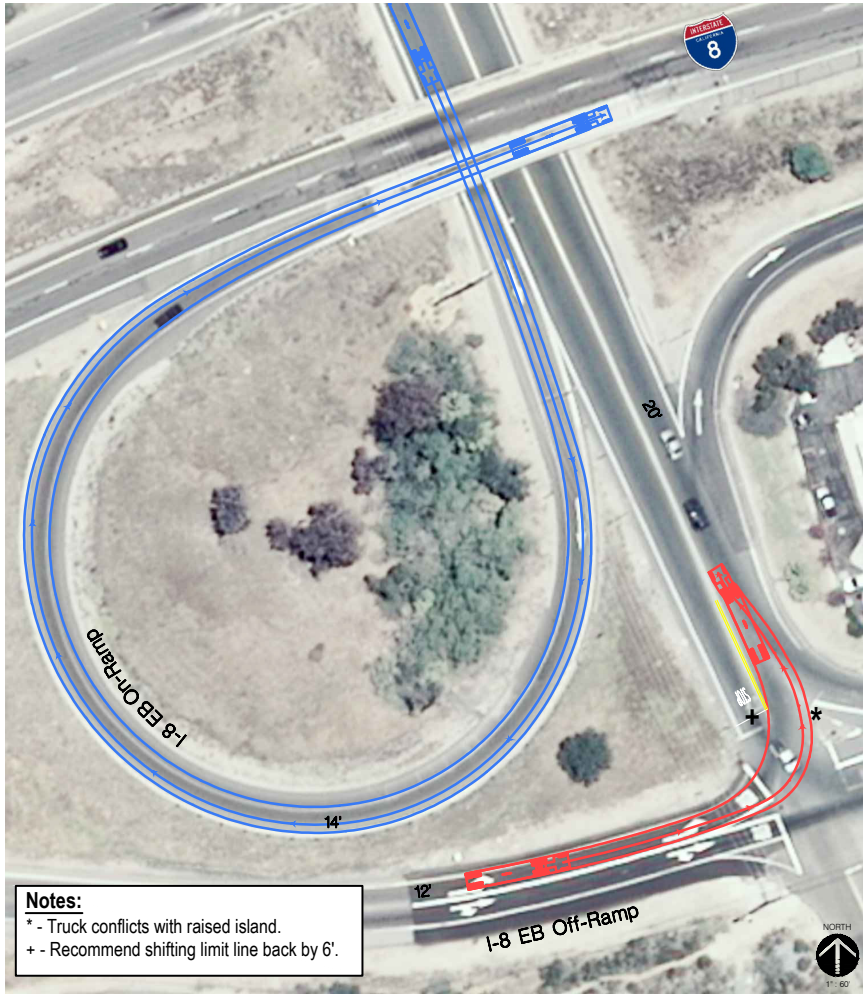
SOURCE: Linscott Law & Greenspan Engineers

El Monte Sand Mining Project . 140957

Figure 2.10-8

Existing + Project Traffic Volumes

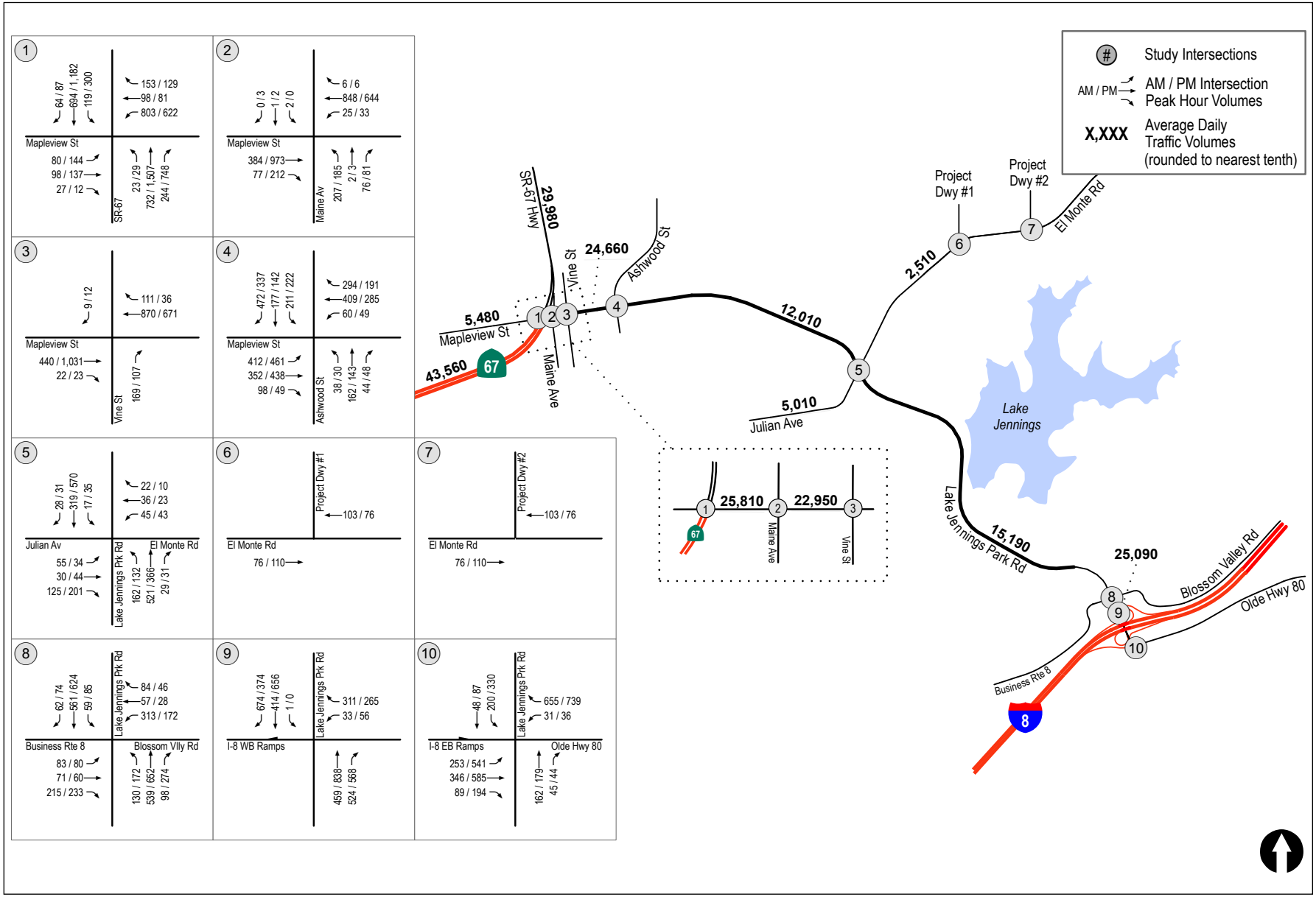




SOURCE: Linscott Law & Greenspan Engineers

Figure 2.10-9

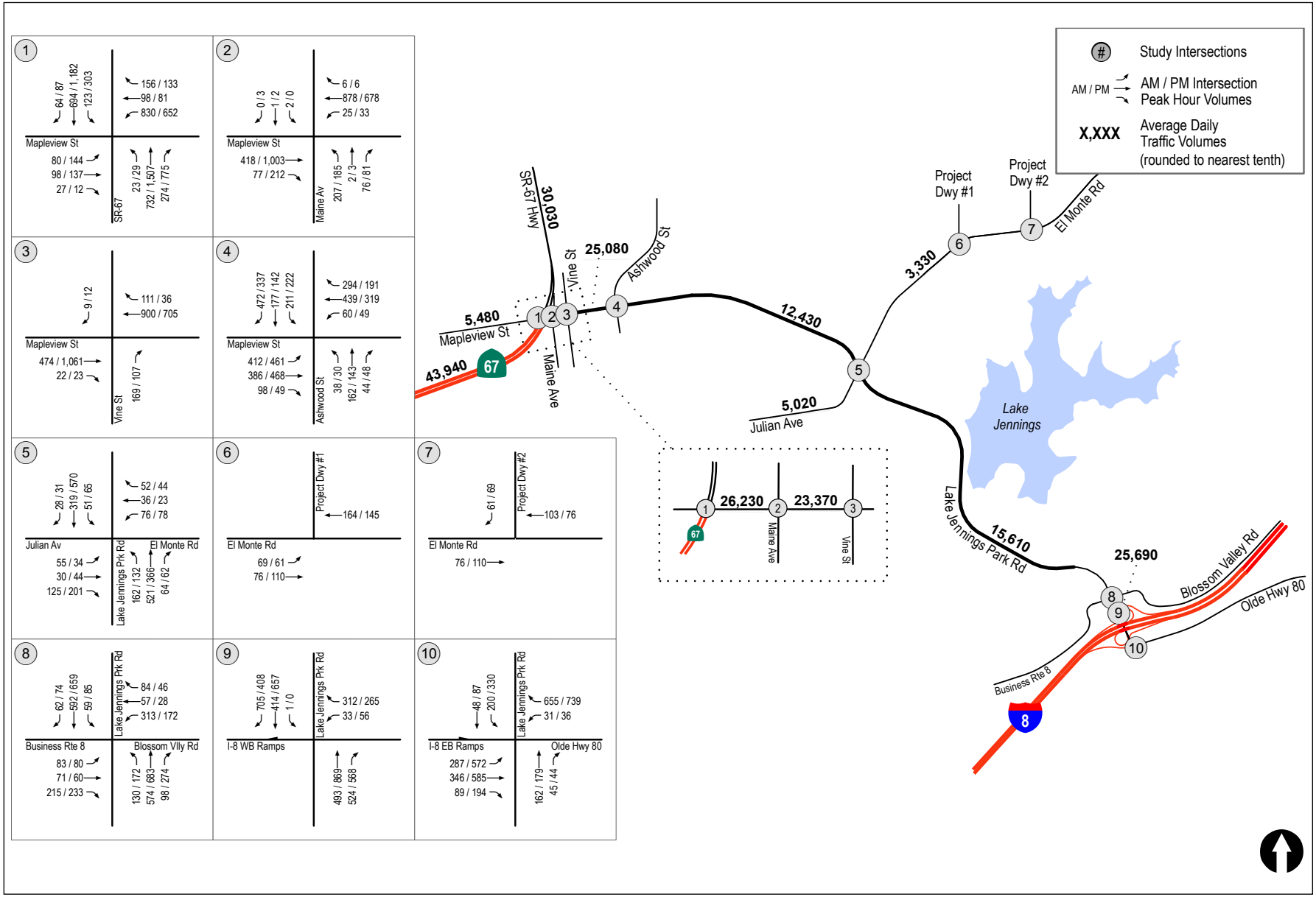
Existing Conditions – Conflict at Lake Jennings Park Road/
I-8 Eastbound off-ramp/Olde Highway 80 Intersection



SOURCE: Linscott Law & Greenspan Engineers

Figure 2.10-10

Near-Term without Project Traffic Volumes



SOURCE: Linscott Law & Greenspan Engineers

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Figure 2.10-11

Near-Term with Project Traffic Volumes

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