

5.10 TRANSPORTATION AND CIRCULATION

SUMMARY

At buildout, the master plan and 54 condominium unit project components would generate an additional 1,884 average daily trips (ADT) to the college campus. The project components consisting of the proposed extension of Dockweiler Drive and Deputy Jake Drive, parkland/open space dedication and water tank replacement would not generate vehicle trips though the roadway extensions would modify the circulation pattern in the project area. The Master's College Master Plan Traffic Impact Analysis prepared for the project, using both the City of Santa Clarita performance standards and Congestion Management Program standards, found that the project at buildout would significantly impact the intersection at

- *Sierra Highway and Placerita Canyon Road.*

To mitigate the impact at the intersection of Sierra Highway and Placerita Canyon Road to level of less than significant, the project shall fund its calculated fair share of improvements to augment the capacities of affected roadways. The proposed project is located within the Via Princessa Bridge and Thoroughfare District. This district is considered a full-mitigation district, that is, traffic improvements identified in the district mitigate traffic impacts created by planned growth within the district. In summary, the district has been designed to accommodate the needs of future development anticipated by the City and County general plans.

Mitigation recommended in this draft EIR would reduce the impact at the intersection of Sierra Highway and Placerita Canyon Road to a level of less than significant. These mitigation measures include adding a separate northbound right-turn lane to Sierra Highway, reconfiguring the two westbound (Placerita Canyon Road) through lanes to a shared through/left-/right-turn lane and adding a dedicated right-turn lane, modifying the traffic signal for split phasing for Placerita Canyon Road approaches and providing right-turn overlap phasing for northbound (Sierra Highway) right turns.

The master plan proposes a total of 1,254 parking spaces, 261 more spaces than are required by the Santa Clarita Unified Development Code (UDC). A parking analysis was prepared for the proposed project by Linscott, Law, & Greenspan that included an analysis of the parking code requirements imposed by other jurisdictions with university campuses. According to that comparative parking analysis, a total of 1,241 spaces would be required to adequately serve the proposed campus expansion, or 13 fewer than are proposed. As the number of parking spaces proposed exceeds the UDC requirement and that identified in the parking analysis prepared for the project, parking impacts on The Master's College campus would be less than significant. Parking provided for the proposed 54 condominium units would comply with UDC requirements. The proposed extension of Dockweiler and Deputy Jake Drives, parkland/open space dedication, and water tank replacement would not generate a parking demand. Parking impacts would be less than significant.

The Master's College Master Plan and TTM 66503 would be reviewed by City Transportation and Engineering staff for hazards and emergency access issues and required to comply with relevant UDC requirements and staff recommendations. This review process would assure that the project would not result in a hazardous design feature, inadequate emergency access, or cause a hazard or barrier for pedestrians or bicyclists. Impacts would be less than significant.

The proposed project would generate approximately 90 new total daily transit trips and approximately 8 new peak hour transit trips. The City of Santa Clarita Transit Division has determined that with transit provisions designed into the project and with the payment of fees, the project will not have a significant transit impact. Additionally, the project does not propose any major disruptions to alternative transportation usage around the project area. Impacts to alternative transportation would be less than significant.

INTRODUCTION AND METHODOLOGY

This section of the EIR summarizes the findings of The Master's College Master Plan Traffic Impact Analysis prepared by Austin-Foust Associates, Inc., in June 2008. Additionally, the parking impact analysis summarizes the findings of the Parking Analysis, Master's College Master Plan, prepared by Linscott, Law, & Greenspan in March 2008. These reports are provided in **Appendix 5.10** of this EIR.

Project Study Area

The project study area, illustrated in **Figure 5.10-1, Project Study Area**, includes the roadways and intersections near the project site and those locations where project-generated traffic could be reasonably expected to cause a significant impact. The study area was determined based on standard City criteria which requires analysis when 50 or more new trips would be added to the peak travel direction as well as input from City Transportation and Engineering staff and the project traffic consultant.

The project study area generally extends to Sierra Highway to the west; Newhall Avenue, Sierra Highway and State Route 14 (SR-14) to the south; Newhall Avenue and Lyons Avenue to the east; and Railroad Avenue and 13th Street to the north. Future extensions through the project study area include the extension of Dockweiler Drive and the extension of Deputy Jake Drive. All of these roadways are consistent with the City's Circulation Element.

Santa Clarita Valley Consolidated Traffic Model

Traffic forecast data for the project traffic impact analysis were derived from the Santa Clarita Valley Consolidated Traffic Model (SCVCTM). The SCVCTM is a traffic planning computer model and the principal tool for transportation planning in the Santa Clarita Valley. It was developed jointly by the City

of Santa Clarita and the County of Los Angeles Public Works Department to provide traffic forecasts for transportation planning in the Valley.¹ Specifically, the model analyzes expected or possible projects based on actual development applications and general plan provisions, and predicts traffic impacts based on various assumptions for different time periods as the Valley builds out. The model is regularly updated (2004) to include any City or County general plan amendments in the Valley that may alter buildout numbers. Therefore, for any given Future Land Use Scenario for the Santa Clarita Valley area, the model can forecast future traffic volumes on the future roadways in the area under evaluation.

In the following analysis, the Interim Year version of the SCVCTM was used to analyze the traffic and circulation conditions. The Interim Year setting includes roadway improvements and future infrastructure consistent with the cumulative projects included within the horizon years 2018 to 2020. The horizon years used do not coincide specifically with project buildout, but it does represent the best timeframe for planning purposes since it includes a comprehensive set of cumulative development projects that have been incorporated into the SCVCTM.

Major roadway projects that are part of the Interim Year setting include the Cross Valley Connector gap closures, the Golden Valley Road extension, the Via Princessa gap closure, and Dockweiler Drive to Lyons Avenue extension. In this particular analysis, the project has been evaluated both with and without the Dockweiler Drive extension.

Interim Year land use is based on data provided by the City of Santa Clarita and Los Angeles County and includes approved, pending, and planned development projects.

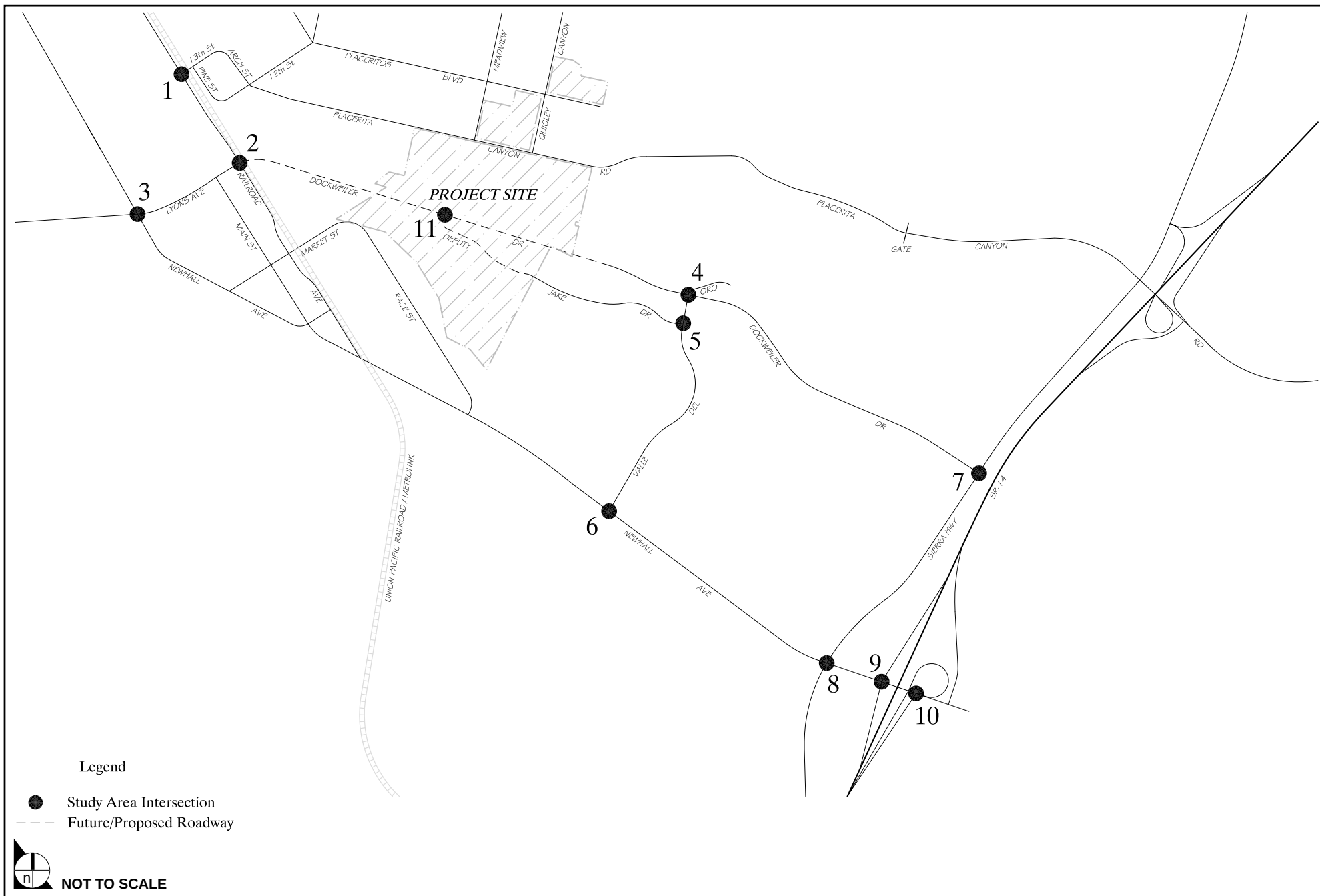
Furthermore, the SCVCTM is developed from regional models prepared by the Southern California Association of Governments (SCAG) and it also forecasts traffic in a regional context. This means that not only are trips to and from the Santa Clarita Valley included in the forecasts, but trips that pass through the Valley are also included.

¹ The Santa Clarita Valley extends from the Ventura County line east to where the Antelope Freeway (SR-14) passes out of the Santa Clarita Valley near Vasquez Rocks Park. Its northern boundary is the Grapevine area north of Castaic and its southern boundary extends to the confluence of Interstate 5 and SR-14 freeways south of Newhall Pass (this is the area that is the subject of the County's Santa Clarita Valley Area Plan).

Definitions

For convenience, certain terms used throughout this EIR section are defined below to clarify their intended meaning:

ADT	Average Daily Traffic. Generally used to measure the total two-directional traffic volumes passing a given point on a roadway.
CMP	Congestion Management Program. A state mandated program administered by the Los Angeles County Metropolitan Transportation Authority (MTA) that provides a mechanism for coordinating land use and development decisions.
DU	Dwelling Unit. Used in quantifying residential land use.
ICU	Intersection Capacity Utilization. A measure of the volume-to-capacity ratio for an intersection. Typically used to determine the peak hour level of service for a given set of intersection volumes.
LOS	Level of Service. A scale used to evaluate circulation system performance based on intersection ICU values or volume-to-capacity ratios of arterial segments.
Peak Hour	This refers to the hour during the AM peak period (typically 7:00 AM to 9:00 AM) or the PM peak period (typically 3:00 PM to 6:00 PM) in which the greatest number of vehicle trips are generated by a given land use or are traveling on a given roadway.
Trip	A trip has tripends that are a starting point and an end point.
Tripend	A trip generation measure that represents the total trips entering and leaving a location.
TSF	Thousand Square Feet. Used in quantifying non-residential land uses, and refers to building floor area.
V/C	Volume-to-Capacity Ratio. This is typically used to describe the percentage of capacity utilized by existing or projected traffic on a segment of an arterial or intersection.
VPD	Vehicles Per Day. Similar to ADT, but more typically applied to trip generation (i.e., the amount of traffic generated by a given amount of land use).



SOURCE: Austin-Foust Associates, Inc. - June 2008

FIGURE 5.10-1

Project Study Area

VPH	Vehicles Per Hour. Used for roadway volumes (counts or forecasts) and trip generation estimates. Measures the number of vehicles in a 1-hour period, typically the AM or PM peak hour.
VPHPL	Vehicles Per Hour Per Lane. Similar to VPH but with the roadway volume averaged to the total number of roadway lanes.

Levels of Service Descriptions

Defined performance criteria are utilized to determine if a proposed project causes a significant impact. Performance criteria are based on two primary measures: “capacity” and “volume.” Capacity establishes the vehicle carrying ability of a roadway and the volume measure is either a traffic count (in the case of existing volumes) or a forecast for a future point in time. The ratio between the volume and the capacity gives a V/C ratio and based on the V/C ratio, a corresponding LOS is defined. Traffic LOS is designated A through F with LOS A representing free flow conditions and LOS F representing severe traffic congestion. Traffic flow quality for each LOS is described in **Table 5.10-1, Level of Service Description**.

Land Use and Trip Generation

Trip generation for a project is based upon the amount and type of future land use proposed in an area and requires that future land use projections be broken down into specific units, such as square feet of floor area, number of dwelling units, etc. The Institute of Transportation Engineers (ITE) Trip Generation Manual was used, particularly Category 550, which includes trip generation factors for universities and colleges that have been derived from case studies of seven different institutions. The Master’s College requires all unmarried students who are not living with their parents to live on campus. Six of the seven dormitory buildings are located on the main campus site and the seventh dormitory is located in nearby downtown Newhall. Many colleges and universities require the freshman class to live on campus, but it is less common for virtually all students to live on campus in this manner. While Master’s College students are allowed to have their own automobiles (currently there is approximately 654 total according to the master plan), it is nonetheless reasonable to consider that this required living arrangement may result in trip generation rates that are lower than the “average” college or university. Due to the unique features of The Master’s College facility, a detailed trip generation evaluation was undertaken for the purpose of determining appropriate rates for use in the impact analysis.

The way that The Master’s College facilities are distributed within the Placerita Canyon community makes it infeasible to take a direct measurement of the traffic volumes currently being generated by the school. Given the layout of the campus, college traffic is mixed in with the traffic generated by the adjacent community. In order to estimate Master’s College trip generation, traffic counts were collected

on roadways and intersections within and immediately around the campus. Counts were collected on two different occasions, in November 2006 when school was in session and again in January 2007 while school was in winter recess.

Table 5.10-1
Level of Service Description

LOS	Arterial Roads	Freeway Segments
A	Describes primarily free-flow operations at average travel speeds, usually about 90% of free-flow speed for the given street class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.	Describes free-flow operations. Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The effects of incidents or point breakdowns are easily absorbed at this level.
B	Describes reasonably unimpeded operations at average travel speeds, usually about 70% of the free-flow speed for the street class. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.	Represents reasonably free flow, and free-flow speeds are maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.
C	Describes stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50% of the free-flow speed for street class.	Provides for flow with speeds at or near the free-flow speed of the freeway. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. Minor incidents may still be absorbed, but the local deterioration in services will be substantial. Queues may be expected to and from behind any significant blockage.
D	Border on the range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors. Average travel speeds are about 40% of free-flow speed.	The level at which speeds begin to decline slightly with increasing flows and density begins to increase somewhat more quickly. Freedom to maneuver within the traffic stream is more noticeably limited, and driver experiences reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions.

LOS	Arterial Roads	Freeway Segments
E	Characterized by significant delays and average travel speeds of 33% or less of the free flow speed. Such operations are caused by a combination of adverse signal progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.	At its highest density value, LOS E describes operations at capacity. Operations at this level are volatile, because they are virtually no usable gaps in the traffic stream. Vehicles are closely spaced, leaving little room to maneuver within the traffic stream at speeds that still exceed 49 miles per hour. Any disruption of the traffic stream, such as vehicles entering from a ramp or a vehicle changing lanes, can establish a disruption wave that propagates throughout the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate even the most minor disruption, and any incident can be expected to produce a serious breakdown with extensive queuing. Maneuverability within the traffic stream is extremely limited, and the level of physical and psychological comfort afforded the driver is poor.
F	Characterized by urban street flow at extremely low speeds, typically one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.	Describes breakdowns in vehicular flow. Such conditions generally exist within queues forming behind breakdown points. LOS F operations within a queue are the result of a breakdown or bottleneck at a downstream point. LOS F is also used to describe conditions at the point of the breakdown or bottleneck and the queue discharge flow that occurs at speeds lower than the lowest speed for LOS E, as well as the operations within the queue that forms upstream. Whenever LOS F conditions exist, they have the potential to extend upstream for significant distances.

Source: *Highway Capacity Manual 2000 (HCM 2000)*, Transportation Research Board, National Research Council.

By defining a cordon boundary around the campus area and collecting counts at each intersecting roadway, an indication of college trip generation can be derived by comparing the volumes entering and exiting the cordoned area. In addition to the college, several residential homes and a church are within the cordon boundary and the college trip generation estimate was adjusted accordingly to account for the other land uses. The ITE rates are not utilized in producing the trip generation numbers since the unique features of the campus, differentiate it from the “average” college or university represented by the ITE rates. Instead, the SCVCTM rates are utilized since they are closer to the field survey estimates that were gathered.

The SCVCTM estimates college trip generation with rates that are generally less than ITE average rates. The SCVCTM rates are closer to the field survey estimates of a peak hour, peak direction rate but are lower than the estimated field survey ADT rate. **Table 5.10-2, Trip Rate Comparison - Master’s College** compares the field survey estimates of trip generation rates to the ITE and the SCVCTM rates. The trip generation rates that were selected consist of a combination of the trip rates used by the SCVCTM and the

rates derived from the survey of the existing conditions of the project area. The ITE rates are not utilized in this analysis since the unique features of the campus, differentiate it from the “average” college or university represented by the ITE rates.

Table 5.10-2
Trip Rate Comparison - Master’s College

	AM Peak Hour			PM Peak Hour			ADT
	IB	OB	Total	IB	OB	Total	
Field Survey Estimate	0.14	0.01	0.15	0.09	0.12	0.21	2.44
ITE Average Rate	0.17	0.04	0.21	0.06	0.15	0.21	2.38
SCVCTM Rate	0.13	0.01	0.14	0.07	0.14	0.21	1.54
Trip Rate Utilized for Traffic Study	0.14	0.01	0.15	0.07	0.14	0.21	2.44

Source: Master’s College Master Plan, Traffic Impact Analysis, Austin-Foust Associates, Inc., June 2008.

The proposed project also includes a tentative tract map to allow, in part, for the future development of 54 condominium units. The townhome/condominium trip generation rates from the SCVCTM were also utilized for accurate analysis. Other project components, including the extension of Dockweiler and Deputy Jake Drives and the dedication of 20.5 acres of vacant land for future parkland/open space purposes would not generate trips though the roadway extensions would modify the circulation pattern in the project area.

Trip Distribution

The geographic distribution of project generated trips was determined using the Santa Clarita Valley Consolidated Traffic Model, which takes into account the specific type of land uses proposed for the site and how those land uses would interact with the other land uses in the City of Santa Clarita.

Los Angeles County Congestion Management Program

The Los Angeles County CMP requires that a proposed development address two major subject areas with respect to traffic impacts. According to the CMP guidelines, the geographical area examined in a CMP traffic impact analysis (TIA) consists of the CMP monitoring locations that meet the following criteria:

- CMP intersections where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours (of adjacent street traffic).

- Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during the AM or PM weekday peak hours.

The nearest CMP intersections to the project site are Main Street at Lyons Avenue, Newhall Avenue at Sierra Highway, and Sierra Highway at Placerita Canyon Road. Of these three intersections, one (Sierra Highway at Placerita Canyon Road) meets the CMP criteria. The CMP freeway monitoring location nearest to the project is SR-14 between Newhall Avenue and I-5.

CMP methodology also states that a significant project impact occurs when the proposed project increases traffic demand at the CMP monitoring location by 2 percent of capacity ($V/C \geq .02$), causing or worsening LOS F.

Another component of the CMP transportation impact analysis is a review of transit impacts. This traffic study considered comments made to the proposed project with responses to the Notice of Preparation submitted by transit operators. The traffic study identifies existing transit services near the project, estimation of the number of project trips assigned to transit, and information on facilities and/or programs that will encourage public transit use, and an analysis of project impacts on transit services.

EXISTING CONDITIONS

Existing Roadway System

Major arterial streets near to the project site include Dockweiler Drive, Newhall Avenue, Railroad Avenue, and Sierra Highway. Future roadways proposed by project include the Dockweiler Drive extension to the proposed North Newhall Specific Plan connection and the extension of Deputy Jake Drive to the Dockweiler Drive extension.

The SR-14 and the I-5 freeways provide regional access to the site. The SR-14 freeway is located approximately 1.5 miles east of the project site and can be accessed via interchanges at Newhall Avenue and Placerita Canyon Road. The I-5 freeway is located approximately 2.5 miles west of the project site and can be accessed via the Pico Canyon Road/Lyons Canyon Road interchange. **Figure 5.10-1, Project Study Area**, illustrates the existing roadway system within the project study area. Each number on the roadway segments illustrate the intersections that were studied and analyzed.

Existing Traffic Volumes and Levels of Service

Figure 5.10-2, Existing Average Daily Traffic, illustrates the existing average daily traffic volumes on the roadway system in the project study area. The number by each roadway segment is the ADT traffic volume in thousands. Peak hour turning movement volumes for each study area intersection are

represented in **Figure 5.10-3, Existing AM Peak Hour Turning Movement Volumes**, and **Figure 5.10-4, Existing PM Peak Hour Turning Movement Volumes**, for the AM and PM peak hours, respectively. The peak hour counts were collected in late 2006 and early 2007. Some of the location counts from the recent Downtown Newhall Specific Plan EIR (collected in 2006) were utilized together with a three percent annual growth factor to reflect 2008 conditions. The results of the ICU LOS analysis for the project area intersections are shown in **Table 5.10-3, ICU and LOS Summary - Existing 2008 Conditions**. As shown, two intersections do not currently meet the City's performance standard:

- Railroad Avenue and 13th Street (LOS E in PM peak hour) and,
- Sierra Highway and Newhall Avenue (LOS F in PM peak hour).

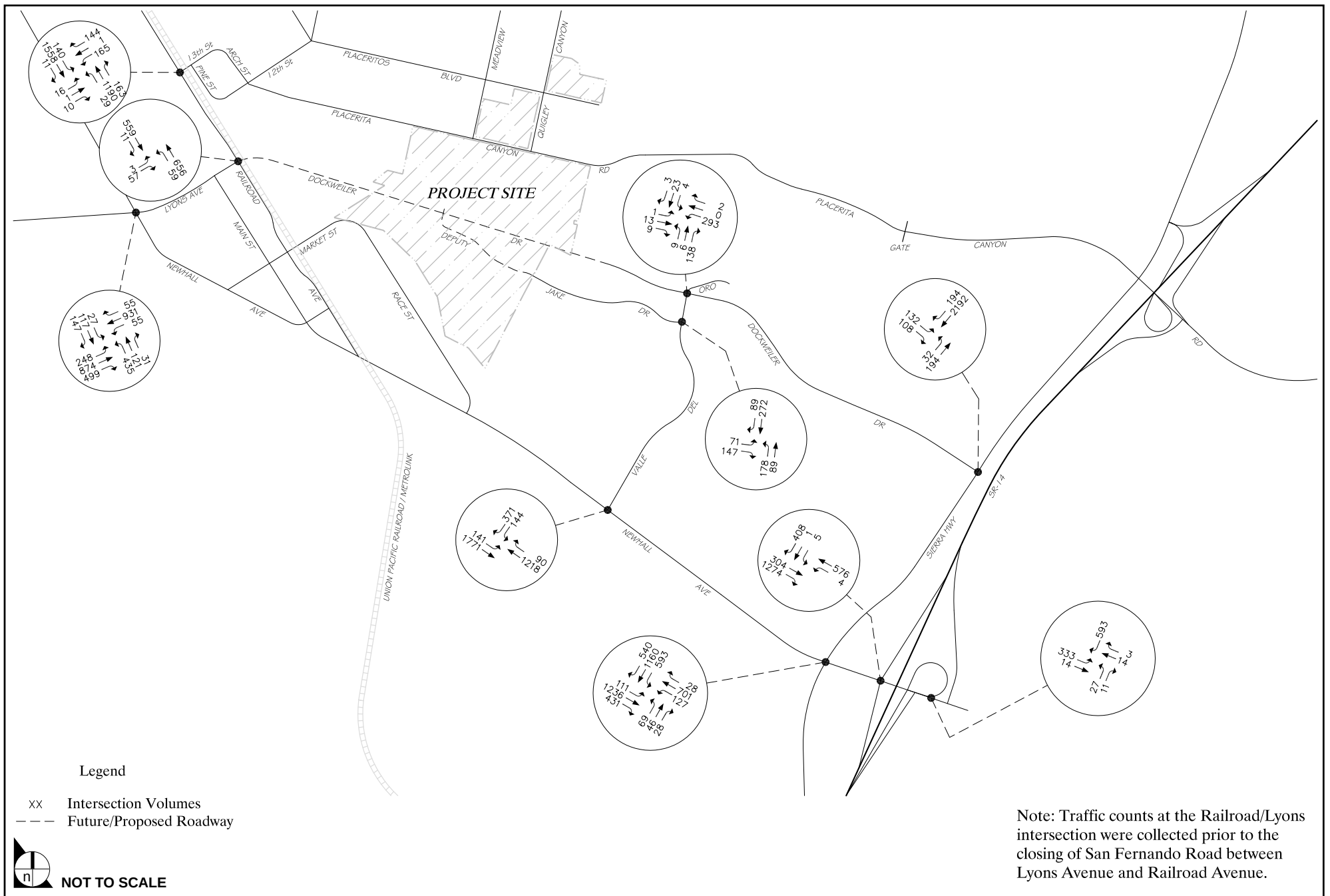
Table 5.10-3
ICU and LOS Summary - Existing 2008 Conditions

Intersection	AM Peak Hour		PM Peak Hour		Count Date
	ICU	LOS	ICU	LOS	
1. Railroad Ave. & 13 th St.	0.63	B	0.94	E	2005
2. Railroad Ave. & Lyons Ave.	0.30	A	0.34	A	2005
3. Newhall Ave. & Lyons Ave.	0.70	B	0.63	B	2005
4. Valle Del Oro & Dockweiler Ave.	0.37	A	0.33	A	Jan. 2007
5. Valle Del Oro & Deputy Jake Dr.	0.45	A	0.23	A	Jan.2007
6. Valle Del Oro & Newhall Ave.	0.58	A	0.62	B	Feb.2007
7. Sierra Hwy & Dockweiler Dr.	0.84	D	0.73	C	Jan. 2007
8. Sierra Hwy & Newhall Ave.	0.85	D	1.06	F	April 2006
9. SR-14 SB Ramps & Newhall Ave.	0.46	A	0.67	B	April 2006
10. SR-14 NB Ramps & Newhall Ave.	0.23	A	0.55	A	April 2006

Source: Master's College Master Plan, Traffic Impact Analysis, Austin-Foust Associates, Inc., June 2008.

Existing Transit Service

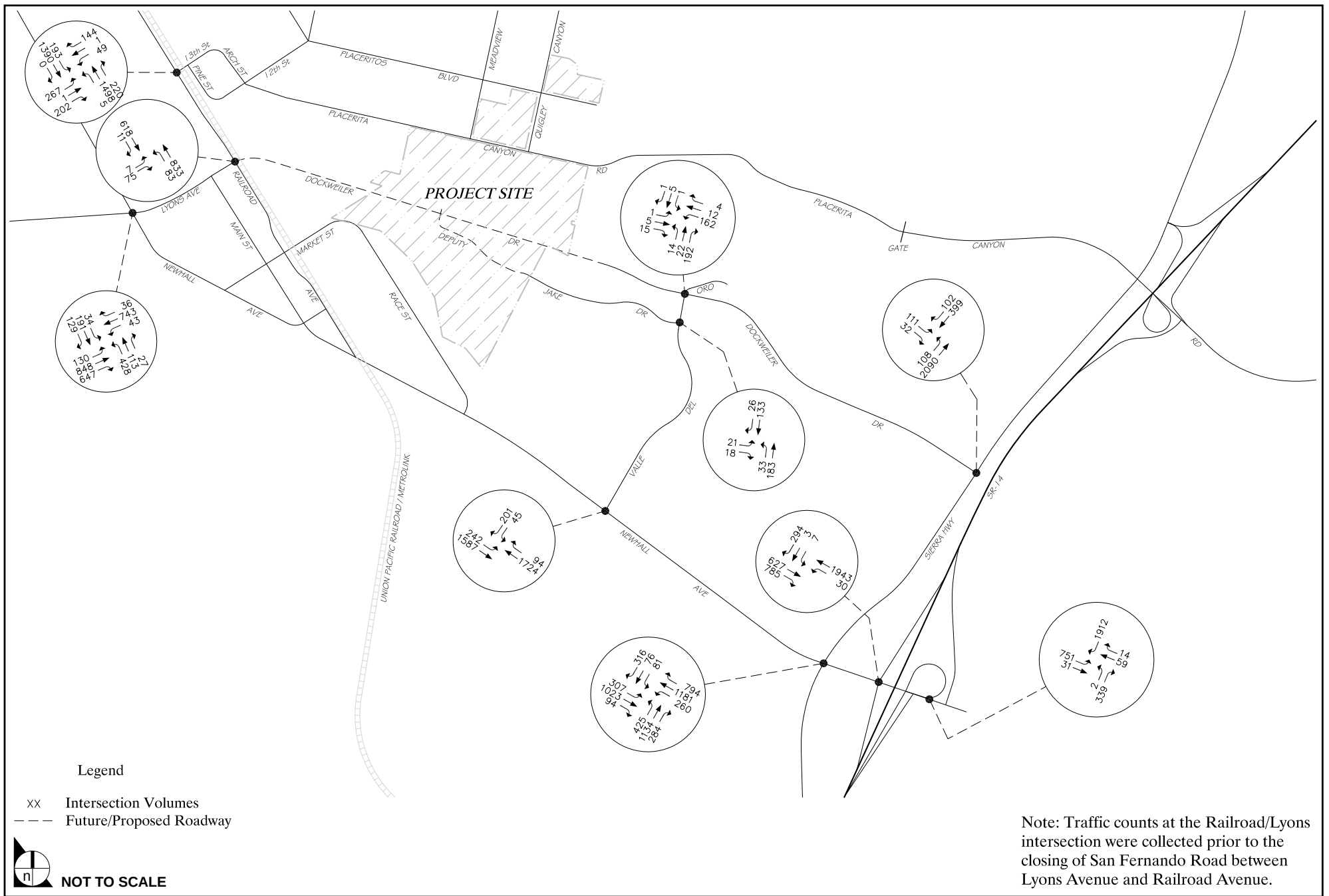
Santa Clarita Transit provides fixed-route transit in the vicinity of the project site via Routes 1, 2, 5, and 6. Routes 1 and 2 provide service between Canyon Country (Whites Canyon) and Castaic/Val Verde via Newhall Avenue and Railroad Avenue. Routes 5 and 6 provide service between Newhall, Stevenson Ranch, and Canyon Country via Lyons Avenue, Newhall Avenue, and Market Street.



SOURCE: Austin-Foust Associates, Inc. - June 2008

FIGURE 5.10-3

Existing AM Peak Hour Turning Movement Volumes



SOURCE: Austin-Foust Associates, Inc. - June 2008

FIGURE 5.10-4

Existing PM Peak Hour Turning Movement Volumes

It can be anticipated that, over time, the local bus service will expand as additional development occurs within the Valley. Typically, bus route plans are evaluated on an annual basis, and routes are added and/or modified as appropriate and as funding permits; therefore, as the proposed project develops, service to the project area is expected to be added accordingly at the discretion of the City of Santa Clarita. Meanwhile, the current transit arrangement is anticipated to continue to serve local residents of the area, connecting residential areas with employment and commercial centers.

In addition to bus service, the nearest transit center is the Newhall Metrolink Station, which is located just west of the project site near the intersection of Railroad Avenue and Market Street. This Metrolink station provides commuter rail service between the Antelope Valley and Downtown Los Angeles, thereby supplying additional regional transit to the site. Metrolink also links Ventura, Los Angeles, San Bernardino, Riverside, Orange, and San Diego counties with convenient transfer service between the bus and rail systems. The Los Angeles County MTA oversees transit planning in the Los Angeles County area, and has a long-range plan for future rail transit. An eventual Metrolink extension along the State Route 126 corridor to Ventura County is part of the long-range transit plans prepared by Ventura County, City of Santa Clarita, and Southern California Association of Governments.

Bridge and Thoroughfare District Fee

Within the Santa Clarita Valley, the County and City have established Bridge and Thoroughfare (B&T) Districts to manage the many significant transportation infrastructure improvements planned to occur within the Valley. The project site is located within the Via Princessa District and the project will pay fees or construct eligible improvements. The Via Princessa District is a full-mitigation district, meaning that the fee represents a fair share allocation of all of the required highway infrastructure based upon the General Plan buildout projections within the district. Current fees for the Via Princessa District are \$17,080 per dwelling unit for residential uses or gross acreage of the parcels for commercial and industrial uses.

ACCESS

Access to the project site is currently limited to Placerita Canyon Road located north of The Master's College campus. Regional access to the campus is provided by SR-14 located directly east of the campus, Railroad Avenue (Highway 126) located southwest of the campus and I-5 located southwest of the project site. The majority of the existing traffic associated with The Master's College uses Railroad Avenue (Highway 126) to connect with 13th street. Thirteenth street turns into Placerita Canyon Road, and provides a main entrance to The Master's College campus.

PARKING

The Master's College currently has 997 parking spaces that are spread throughout the campus. There are 245 parking spaces on the North Campus, 188 spaces on the Valley Campus, and 564 parking spaces on the Hilltop Campus. Dormitory parking is currently access controlled by 24-hour security personnel.

A parking analysis was conducted for the proposed project that included a detailed survey to determine the existing parking demand on The Master's College campus. A survey of actual parking utilization was conducted from 7:00 AM and 8:00 PM with an additional nighttime survey round at 11:00 PM on Tuesday, December 4, and Wednesday, December 5, 2007. The demand on Wednesday was greater than on Tuesday and peaked at noon with a campus-wide parking demand of 652 spaces in campus lots, or 65 percent of the supply. The demand on Tuesday was approximately 6 percent less at the noon peak time. The nighttime demand was associated with resident students and totaled 339 spaces in the Hillside Campus. On-street parking demand during the surveys was extremely small due to on-street parking prohibitions, college parking regulations that prohibit on-street parking by students and was attributed to other community parking needs.

PROJECT IMPACTS

Significance Threshold Criteria

According to the City of Santa Clarita Environmental Guidelines, a project would have a significant effect on the environment if it would

- cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections);
- exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highways;
- result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- result in inadequate emergency access;
- parking demand exceeds municipal code-required parking capacity.;
- conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks); and/or
- cause a hazard or barrier for pedestrians or bicyclists.

Performance Criteria

Performance criteria are utilized as significance thresholds for this impact analysis. In most traffic studies, performance criteria are based on two primary measures. The first is “capacity,” which establishes the vehicle carrying ability of a roadway and the second is “volume.” The volume measure is either a traffic count (in the case of existing volumes) or a forecast for a future point in time.

The ratio between the volume and the capacity gives a V/C ratio and a corresponding level of service.

Table 5.10-4, Volume-to-Capacity Ratio Level of Service Ranges, summarizes the V/C ranges that correspond to LOS A through F for arterial roads and freeway segments. The V/C ranges listed for arterial roads within the study area are designated in the general plan for the City of Santa Clarita. The V/C ranges listed for freeway segments are based on the V/C and LOS relationships specified in the Highway Capacity Manual (HCM 2000) for basic freeway sections. **Table 5.10-5, Project Trip Generation**, provides the number of AM and PM peak hour trips and the average daily traffic volumes associated with the proposed land uses.

Table 5.10-4
Volume-to-Capacity Ratio Levels of Service Ranges

V/C Range	LOS
Arterial Roads	
0.00–0.60	A
0.61–0.70	B
0.71–0.80	C
0.81–0.90	D
0.91–1.00	E
Above 1.00	F
Freeway Segments	
0.00–0.30	A
0.31–0.50	B
0.51–0.71	C
0.72–0.89	D
0.90–1.00	E
Above 1.00	F

*Source: Master's College Master Plan, Traffic Impact Analysis,
Austin-Foust Associates, Inc., June 2008.*

**Table 5.10-5
Project Trip Generation**

	Units	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Existing College								
College	1,105 STU ¹	155	11	166	77	155	232	2,696
Future College								
College	1,700 STU	238	17	255	119	238	357	4,148
Condominiums	54 DU	5	26	31	25	14	39	432
Total		243	43	286	144	252	396	4,580
New Net Trips		88	32	120	67	97	164	1,884
Trip Rate								
College	STU	0.14	0.01	0.15	0.07	0.14	0.21	2.44
Condominium/Townhouse	DU	0.10	0.48	0.58	0.47	0.26	0.73	8.00

Source: Master's College Master Plan, Traffic Impact Analysis, Austin-Foust Associates, Inc., June 2008.

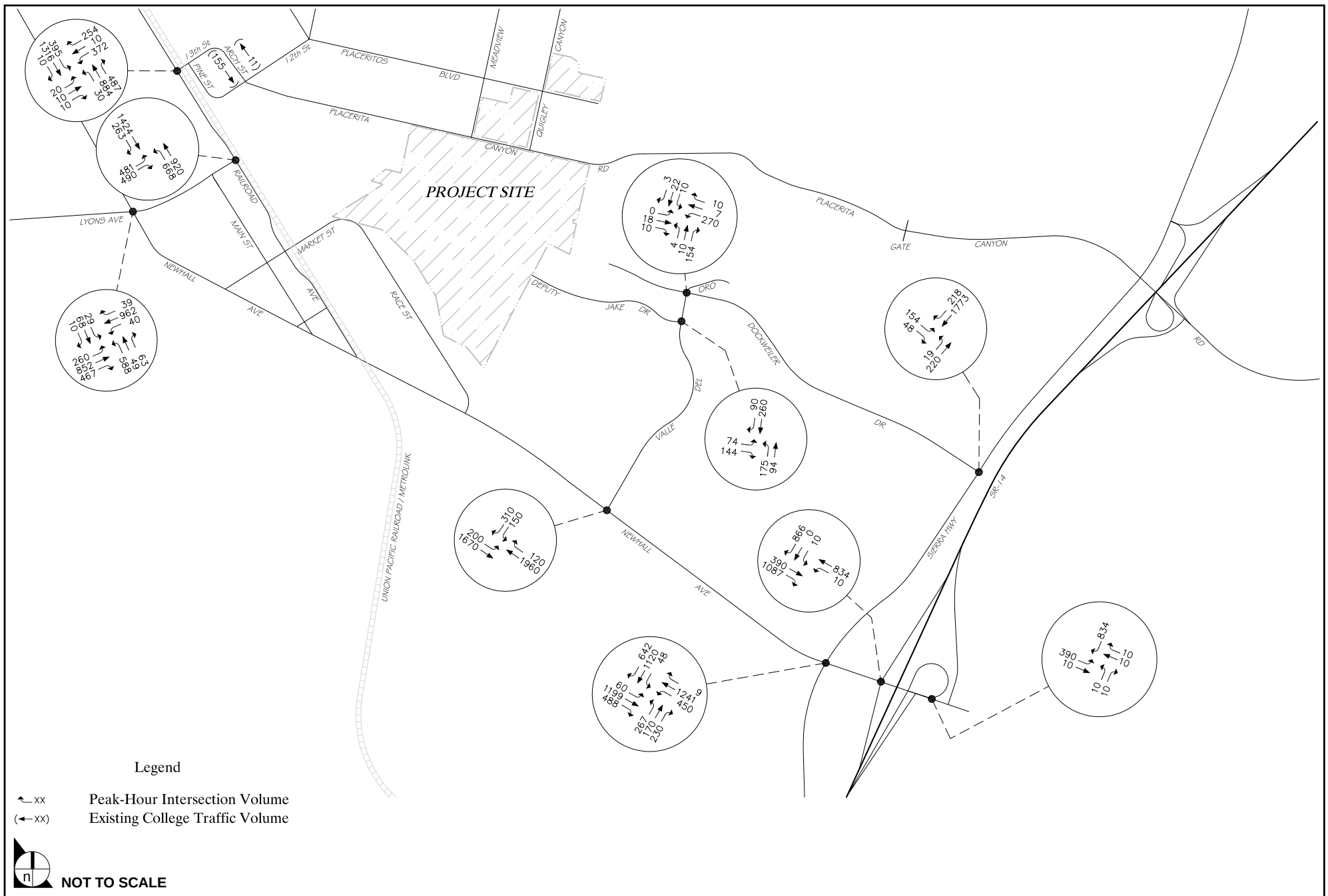
¹ The trip rate used to calculate traffic generated by the proposed master plan includes trips generated by students, faculty, and staff.

Note: STU = student, DU = dwelling unit

Project Trip Distribution

The distribution of trips to and from the project site was calculated by the SCVCTM. **Figure 5.10-5, Project Trip Distribution**, summarizes the general distribution of project traffic based on a 24-hour period, using SCVCTM model runs prepared specifically for this traffic analysis.

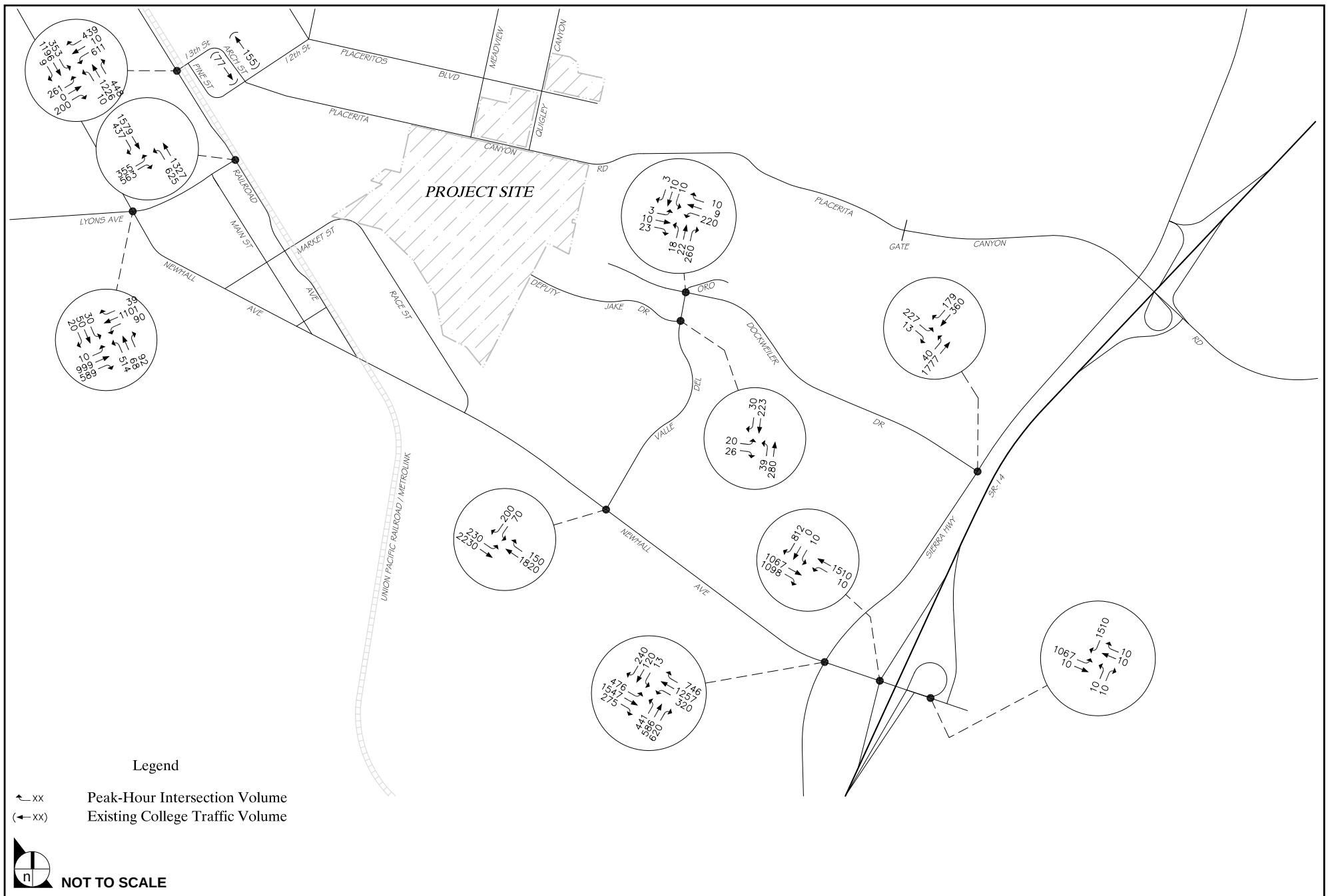
The ADT volumes for Interim Year conditions without the project are provided in **Figure 5.10-6, Average Daily Traffic Volumes, Interim Year Without Project**, with volumes included for conditions with and without the extension of Dockweiler Drive to the proposed North Newhall Specific Plan connection. **Figure 5.10-7, AM Peak Hour Volumes – Without Project, Without Dockweiler Extension**, shows the Interim Year AM peak hour volumes for no project conditions without the extension of Dockweiler Drive. **Figure 5.10-8, AM Peak Hour Volumes – Without Project, With Dockweiler Extension**, illustrates the corresponding set of AM peak hour volumes with the Dockweiler extension, with the proposed project. **Figure 5.10-9, PM Peak Hour Volumes – Without Project, Without Dockweiler Extension**, and **Figure 5.10-10, PM Peak Hour Volumes – Without Project, With Dockweiler Extension**, provide the comparable set of volumes for PM peak hour conditions.



SOURCE: Austin-Foust Associates, Inc. - June 2008

FIGURE 5.10-7

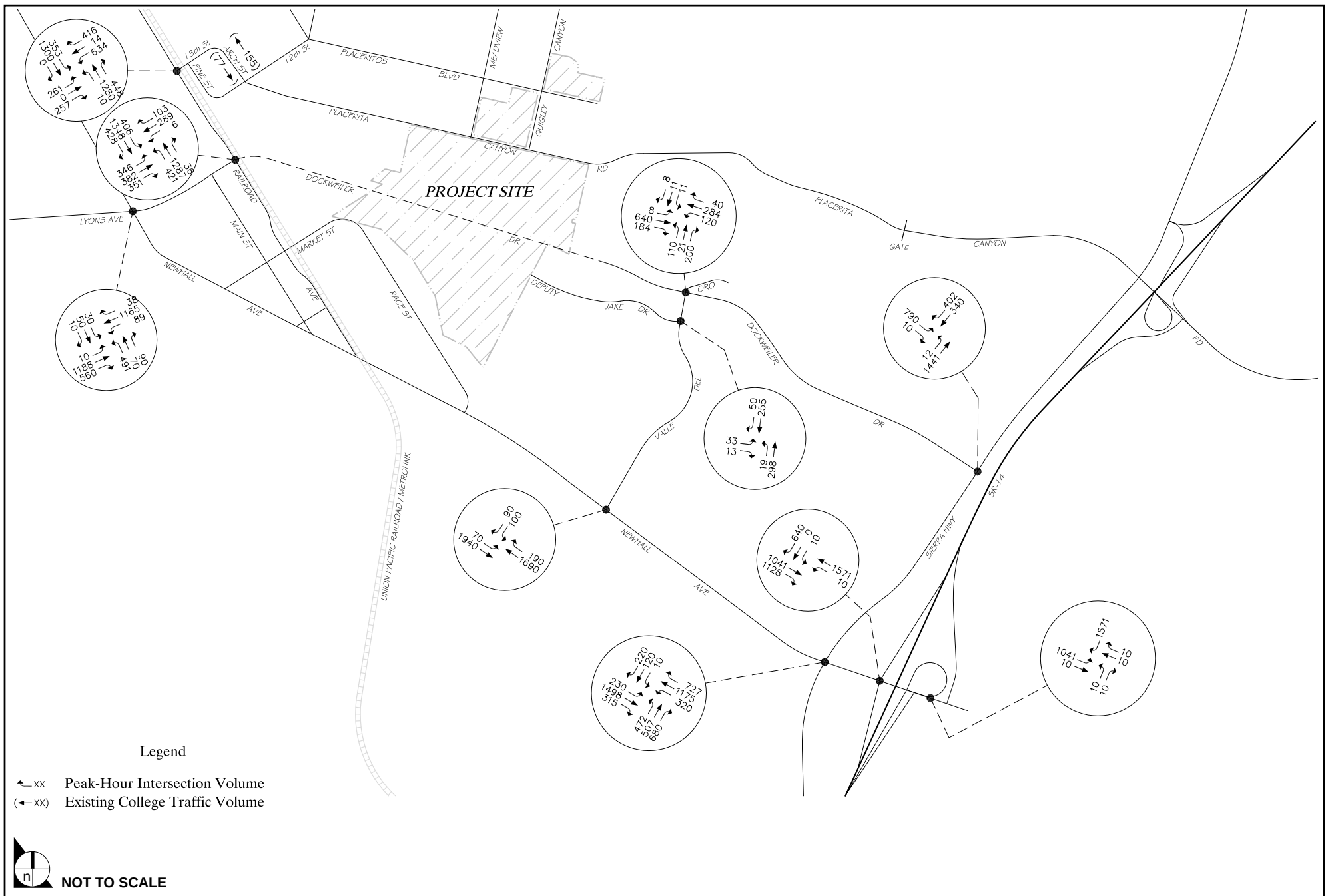
AM Peak Hour Volumes - Without Project, Without Dockweiler Extension



SOURCE: Austin-Foust Associates, Inc. - June 2008

FIGURE 5.10-9

PM Peak Hour Volumes - Without Project, Without Dockweiler Extension



SOURCE: Austin-Foust Associates, Inc. - June 2008

FIGURE 5.10-10

PM Peak Hour Volumes - Without Project, With Dockweiler Extension

Project ADT volumes are shown in **Figure 5.10-11, Average Daily Traffic Volumes – Interim Year With Project**. **Figure 5.10-12, AM Peak Hour Volumes – With Project, Without Dockweiler Extension**, illustrates the Interim Year AM peak hour conditions without the extension of Dockweiler Drive. **Figure 5.10-13, AM Peak Hour Volumes – Without Project, With Dockweiler Extension**, shows the corresponding set of AM peak hour volumes with the Dockweiler Drive extension, with the proposed project. **Figure 5.10-14, PM Peak Hour Volumes – With Project, Without Dockweiler Extension**, and **Figure 5.10-15, PM Peak Hour Volumes – With Project, With Dockweiler Extension**, provide the comparable set of volumes for PM peak hour conditions with the proposed project.

Level of Service Analysis

A LOS analysis was used in order to determine if the proposed project would cause a significant impact to the intersections within the study area. The ICU values were calculated with and without traffic and the impact criteria described in **Table 5.10-1, Levels of Service Description**, above, were used to determine significant impacts.

A matrix of ICU values for conditions with and without the proposed project and with and without the Dockweiler Drive extension is provided in **Table 5.10-6, ICU and LOS Summary – Interim Year With and Without Project**. The ICUs were calculated using the Interim Year traffic volume forecasts and with the intersection lane geometry, which includes improvements anticipated to be in place before development of the proposed project occurs. The improvements correspond with the “2010 Build” as specified in the Downtown Newhall Specific Plan EIR and are utilized for background conditions without the Dockweiler Drive extension to the proposed North Newhall Specific Plan connection. For background conditions with the Dockweiler Drive extension, intersection lanes at the Railroad Avenue/Dockweiler Drive intersection were estimated based on the minimum lane requirements needed to accommodate the anticipated traffic at that location for no-project conditions. As shown, performance at several of the studied intersections improves with the relocation of the project’s main entry point to Dockweiler Drive.

As shown in **Table 5.10-6, ICU and LOS Summary – Interim Year With and Without Project**, the project would not result in the reduction of a LOS at the intersections in the vicinity of the project site. Therefore, project impacts would be less than significant.

Congestion Management Program Analysis

The CMP is a state-mandated program enacted by the state legislature with the passage of various assembly bills. The requirements for the program became effective with voter approval of Proposition 111 in June 1990.

Table 5.10-7, ICU and LOS Summary – With Mitigation, summarizes the intersection ICUs and LOS with the implementation of the recommended mitigation measures and shows that the measures would fully mitigate the impacts of the proposed project.

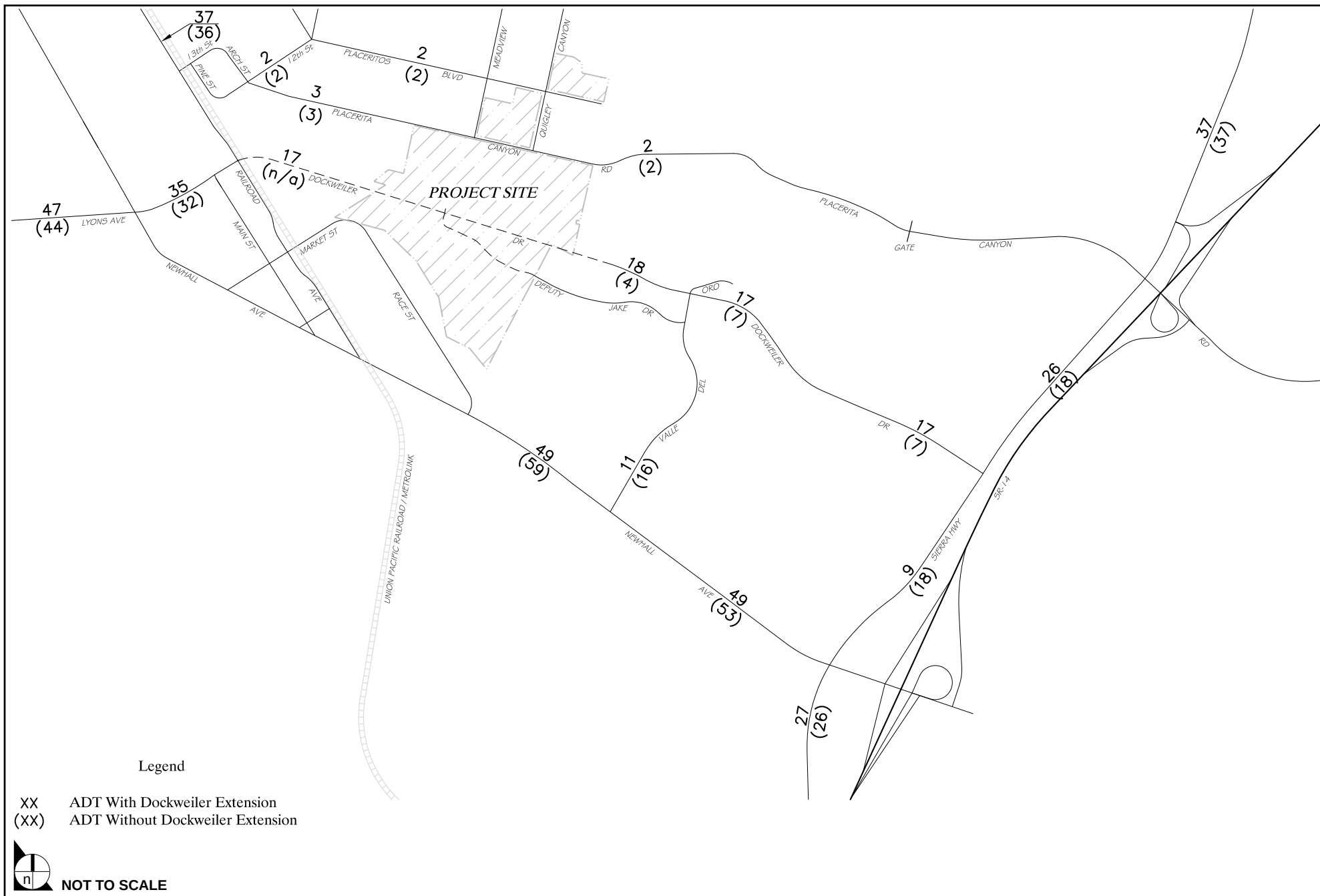
The CMP highway network, which is evaluated in this analysis, consists of all state highways (both freeways and arterials) and principal arterials that meet the criteria established by the Metropolitan Transportation Authority (MTA). Impacts are evaluated by monitoring LOS performance standards for specific highway segments and key roadway intersections on the CMP highway network, as designated by the MTA.

The Los Angeles County CMP requires that two major subject areas with respect to traffic impacts are addressed. According to the CMP guidelines, the geographical area examined consists of the CMP monitoring locations that meet the criteria below:

- CMP intersections where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours (of the adjacent street traffic).
- Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

The nearest CMP intersections to the project site are Main Street at Lyons Avenue, Newhall Avenue at Sierra Highway, and Sierra Highway at Placerita Canyon Road. Of these three intersections, Sierra Highway at Placerita Canyon road is the only one that meets the CMP criteria listed above. The net amount of new traffic added to the Sierra Highway at Placerita Canyon Road intersection is 55 vehicles in the AM peak hour and 97 in the PM peak hour, without the completion of the Dockweiler Drive extension. When the Dockweiler extension is completed, the net amount of new traffic added to the intersection is 40 vehicles in the AM peak hour and 97 in the PM peak hour.²

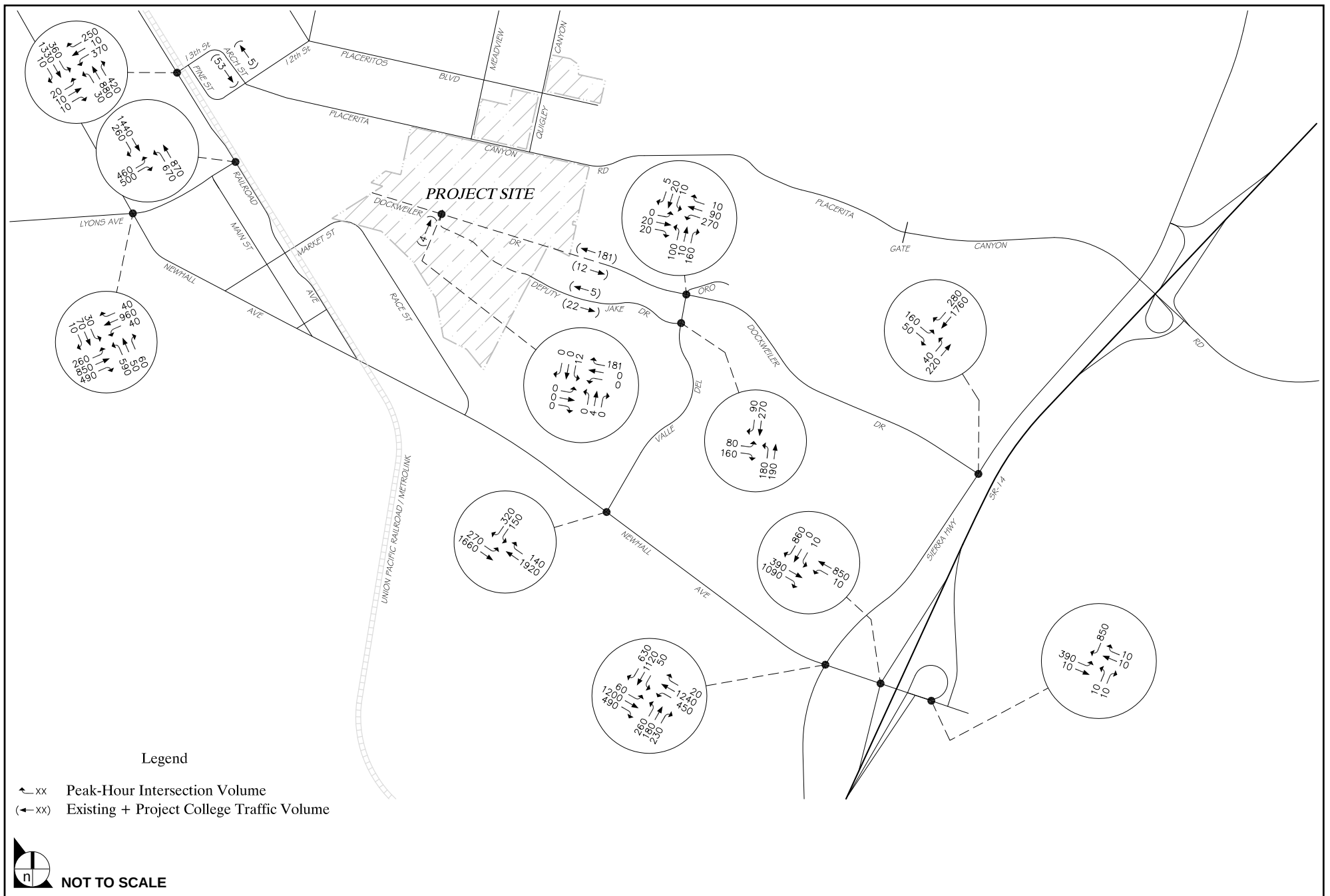
² The traffic increases include both the new traffic generated by the project and the redistribution of existing Master's College traffic that occurs with the proposed new main entry on Dockweiler Road.



SOURCE: Austin-Foust Associates, Inc. - June 2008

FIGURE 5.10-11

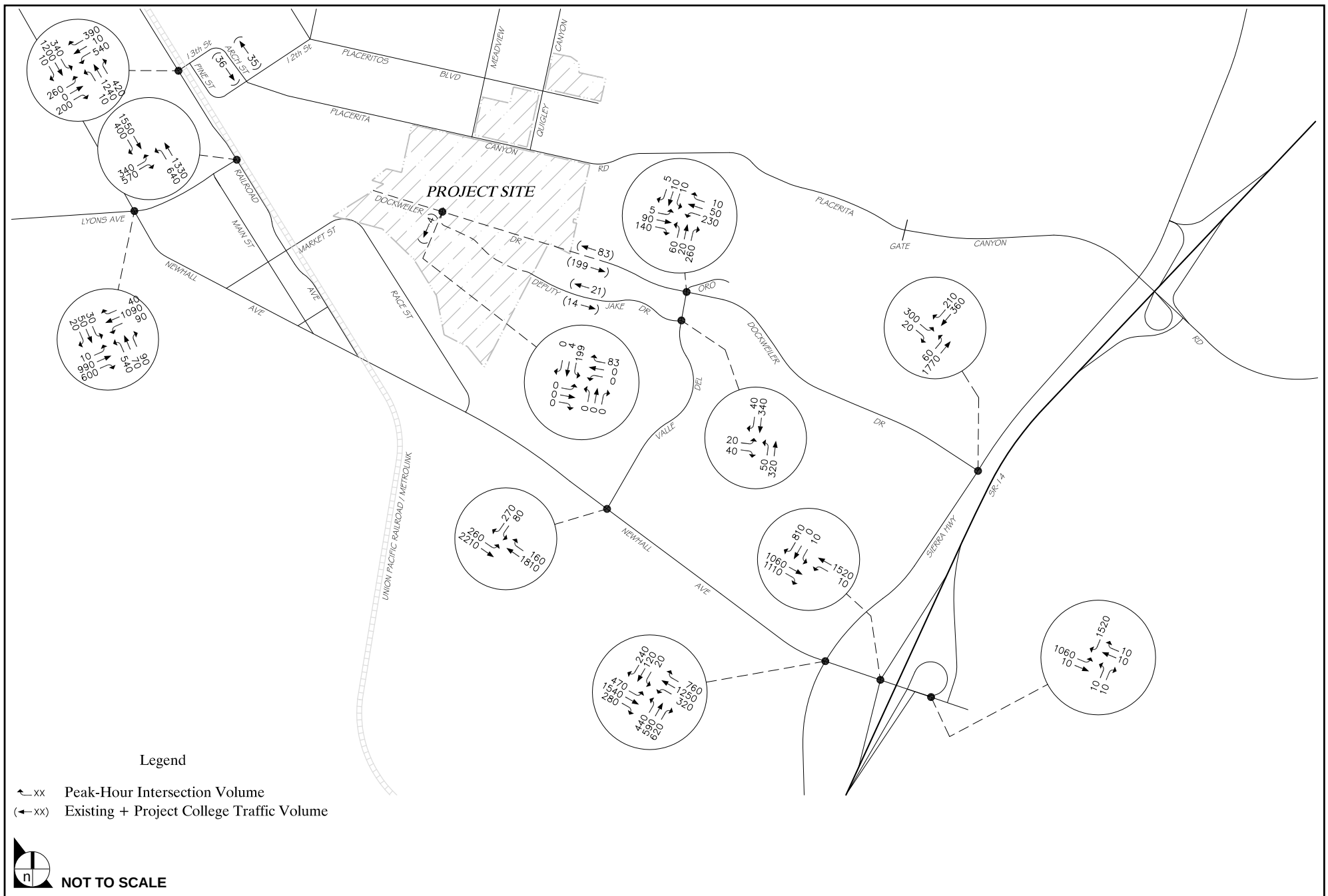
Average Daily Traffic Volumes - Interim Year With Project



SOURCE: Austin-Foust Associates, Inc. - June 2008

FIGURE 5.10-12

AM Peak Hour Volumes - With Project, Without Dockweiler Extension



SOURCE: Austin-Foust Associates, Inc. - June 2008

FIGURE 5.10-14

PM Peak Hour Volumes - With Project, Without Dockweiler Extension

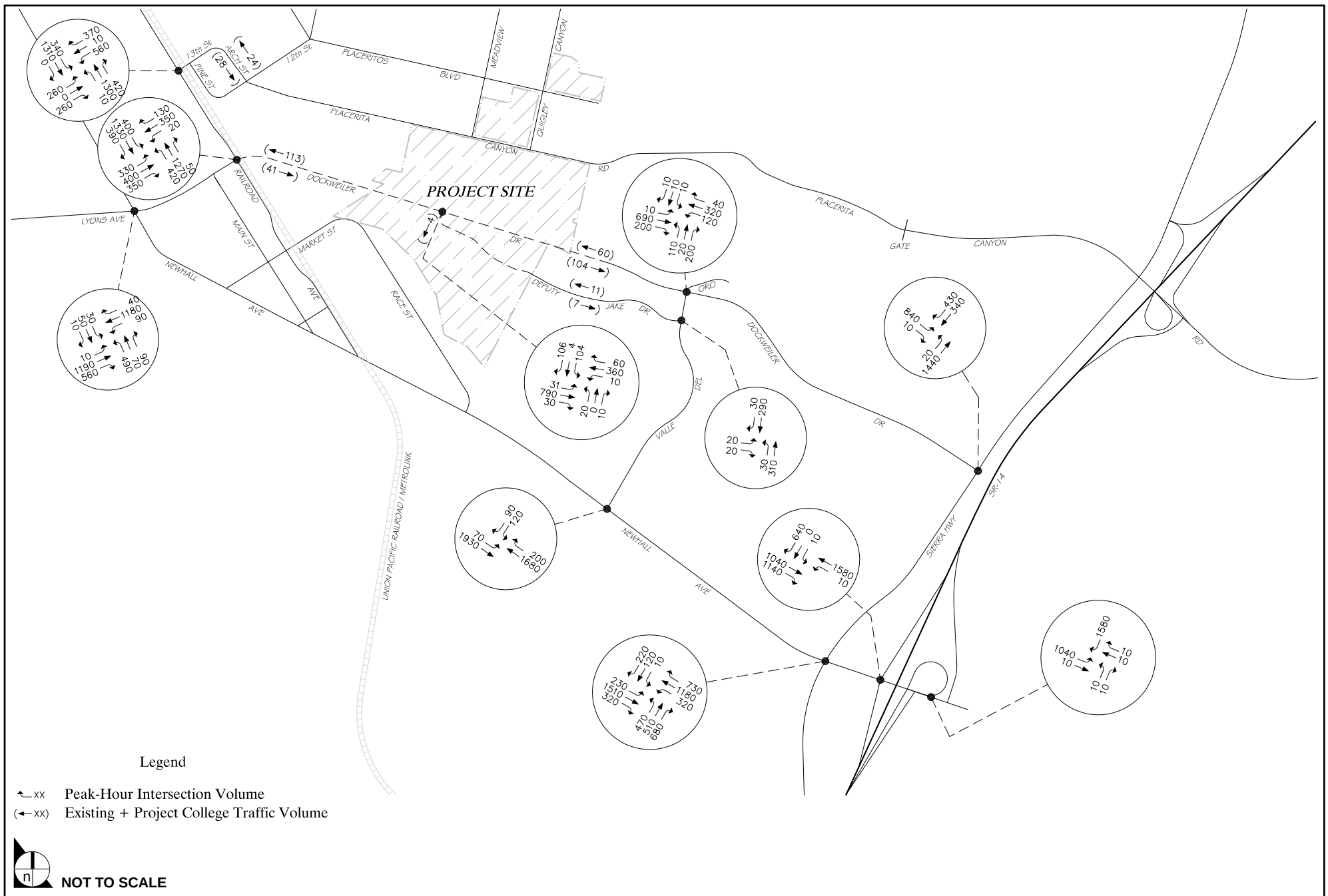


FIGURE 5.10-15

PM Peak Hour Volumes - With Project, With Dockweiler Extension

Table 5.10-6
ICU and LOS Summary – Interim Year With and Without Project

Location	Without Dockweiler Drive Extension					With Dockweiler Drive Extension ¹				
	No Project		With Project		Change	No Project		With Project		Change
	ICU	LOS	ICU	LOS		ICU	LOS	ICU	LOS	
AM Peak Hour										
1. Railroad Ave. & 13 th St.	0.81	D	0.79	C	-0.02	0.84	D	0.81	D	-0.03
2. Railroad Ave. & Lyons Ave.	1.03	F	1.02	F	-0.01	0.87	D	0.87	D	0.00
3. Newhall Ave. & Lyons Ave.	0.73	C	0.73	C	0.00	0.79	C	0.79	C	0.00
4. Valle Del Oro & Dockweiler Dr.	0.38	A	0.43	A	0.05	0.45	A	0.45	A	0.00
5. Valle Del Oro & Deputy Jake Dr.	0.44	A	0.46	A	0.02	0.36	A	0.34	A	0.02
6. Valle Del Oro & Newhall Ave.	0.71	C	0.73	C	0.02	0.55	A	0.55	A	0.00
7. Sierra Hwy & Dockweiler Dr.	0.72	C	0.75	C	0.03	0.79	C	0.80	C	0.01
8. Sierra Hwy & Newhall Ave.	1.08	F	1.07	F	-0.01	1.03	F	1.03	F	0.00
9. SR-14 SB ramps & Newhall Ave.	0.43	A	0.43	A	0.00	0.43	A	0.43	A	0.00
10. SR-14 NB ramps & Newhall Ave.	0.23	A	0.23	A	0.00	0.21	A	0.21	A	0.00
11. Master’s College & Dockweiler Dr.	--	--	0.16	A	--	--	--	0.46	A	--
PM Peak Hour										
1. Railroad Ave. & 13 th St.	1.26	F	1.21	F	-0.05	1.33	F	1.28	F	-0.05
2. Railroad Ave. & Lyons Ave.	1.01	F	1.01	F	0.00	0.82	D	0.82	D	0.00
3. Newhall Ave. & Lyons Ave.	0.62	B	0.61	B	-0.01	0.66	B	0.66	B	0.00
4. Valle Del Oro & Dockweiler Dr.	0.43	A	0.56	A	0.13	0.61	B	0.62	B	0.01
5. Valle Del Oro & Deputy Jake Dr.	0.29	A	0.36	A	0.07	0.30	A	0.31	A	0.01
6. Valle Del Oro & Newhall Ave.	0.65	B	0.68	B	0.03	0.56	A	0.57	A	0.01
7. Sierra Hwy & Dockweiler Ave.	0.67	B	0.70	B	0.03	0.74	C	0.75	C	0.01

Location	Without Dockweiler Drive Extension					With Dockweiler Drive Extension ¹				
	No Project		With Project		Change	No Project		With Project		Change
	ICU	LOS	ICU	LOS		ICU	LOS	ICU	LOS	
8. Sierra Hwy & Newhall Ave.	1.00	E	1.00	E	0.00	0.93	E	0.93	E	0.00
9. SR-14 SB ramps & Newhall Ave.	0.54	A	0.54	A	0.00	0.56	A	0.56	A	0.00
10. SR-14 NB ramps & S. Newhall Ave.	0.43	A	0.43	A	0.00	0.42	A	0.42	A	0.00
11. Master's College & Dockweiler Dr.	--	--	0.23	A	--	--	--	0.42	A	--

Source: Master's College Master Plan, Traffic Impact Analysis, Austin-Foust Associates, Inc. June 2008.

¹ The analysis considered the extension of Dockweiler Drive to the proposed North Newhall Specific Plan.

Table 5.10-7
ICU and LOS Summary – With Mitigation

Location	Without Dockweiler Drive Extension					With Dockweiler Drive Extension				
	No Project		With Project		Change	No Project		With Project		Change
	ICU	LOS	ICU	LOS		ICU	LOS	ICU	LOS	
AM Peak Hour										
12. Sierra Hwy & Placerita Canyon Rd.										
with CMP methodology	0.97	E	0.89	D	-0.08	1.02	F	0.92	E	-0.05/-0.10
with City methodology	0.90	D	0.83	D	-0.07	0.94	F	0.85	D	-0.05/-0.09
PM Peak Hour										
12. Sierra Hwy & Placerita Canyon										
with CMP methodology	1.23	F	0.94	E	-0.29	1.27	F	0.93	E	-0.30/-0.34
with City methodology	1.13	F	0.87	D	-0.26	1.17	F	0.86	D	-0.27/-0.31

Source: Master's College Master Plan, Traffic Impact Analysis, Austin-Foust Associates, Inc., June 2008.

The CMP methodology standards state that a significant project impact occurs when the proposed project increases traffic demand at a CMP monitoring location by two percent capacity ($V/C \geq .02$), causing or worsening LOS F. As shown in **Table 5.10-8, ICU and LOS Summary – CMP Intersection Analysis**, the proposed project would have a significant impact at the intersection of Sierra Highway and Placerita Canyon Road. The implementation of the mitigation measures recommended below would reduce the significant impact to a less than significant level.

Table 5.10-8
ICU and LOS Summary - CMP Intersection Analysis

Location	Without Dockweiler Drive Extension					With Dockweiler Drive Extension				
	No Project		With Project		Change	No Project		With Project		Change
	ICU	LOS	ICU	LOS		ICU	LOS	ICU	LOS	
AM Peak Hour										
12. Sierra Hwy & Placerita Canyon Rd.										
with CMP methodology	0.97	E	0.98	E	0.01	1.02	F	1.03	F	0.01
with City methodology	0.90	D	0.91	E	0.01	0.94	E	0.95	E	0.01
PM Peak Hour										
12. Sierra Hwy & Placerita Canyon Rd.										
with CMP methodology	1.23	F	1.25	F	0.02	1.27	F	1.29	F	0.02
with City methodology	1.13	F	1.15	F	0.02	1.17	F	1.18	F	0.01

Source: Master's College Master Plan, Traffic Impact Analysis, Austin-Foust Associates, Inc., June 2008.

The CMP freeway monitoring nearest to the project site is SR-14 between Newhall Avenue and I-5. The net amount of traffic that would be added to the freeway monitoring location is 16 vehicles in the AM peak hour and 12 in the PM peak hour. The project does not meet the CMP criteria for a freeway analysis; therefore, there is not a significant impact.

Access and Hazards

Placerita Canyon Road is currently the only road that provides access to the project site. Dockweiler Drive would be extended to the proposed North Newhall Specific Plan connection and would provide a new access point for The Master's College campus. The extension of Dockweiler Drive would alleviate the traffic on Placerita Canyon Road, and would serve as the primary access point for the campus. College access via Placerita Canyon Road would remain, but the majority of the college campus traffic

will utilize the Dockweiler Drive access point due to the proposed master plan orientation of the campus. In addition, Deputy Jake Drive would be connected to the extension of Dockweiler Drive. Deputy Jake Drive would alleviate the congestion on Dockweiler Drive, and provide easier egress and ingress to the new access point for The Master's College campus.

The project site is not in the vicinity of an airport and would not have any affect on air traffic patterns. No impact would occur.

Chapter 3.0, Development Plan, of The Master's College Master Plan includes a circulation and pedestrian plan. Tentative Tract Map (TTM) No. 66503 depicts circulation and access associated with the proposed extensions of Dockweiler and Deputy Jake Drives and the 54 condominium units. The Master's College Master Plan and TTM No. 66503 would be reviewed by City Transportation and Engineering staff for hazards and emergency access and required to comply with relevant UDC requirements and staff recommendations. This review process would assure that the project would not result in a hazardous design feature, inadequate emergency access, or cause a hazard or barrier for pedestrians or bicyclists. Impacts would be less than significant. Additionally, as the proposed extension of Dockweiler and Deputy Jake Drives, parkland/open space dedication, and water tank replacement would not generate a hazard impact, associated impacts would be less than significant.

Parking

The proposed master plan would provide a total 1,254 parking spaces, including 868 spaces (471 dormitory spaces and 397 spaces for others) on the Hillside Campus, 160 spaces on the Valley Campus, and 226 spaces on the North Campus. All of the new parking and the existing dormitory parking would be accessed from the new campus entry at Dockweiler Drive. The dormitory parking areas would be expanded and continue to be restricted via a new security station located off the new entry. A new parking area would be provided near the new campus center to serve the new classroom buildings and the chapel.

Based on the Santa Clarita Unified Development Code (UDC), future campus parking requirements were calculated based on the proposed chapel and dormitory capacities. The chapel parking requirement is based on the City of Santa Clarita's Community Assembly requirement of four fixed seats plus one space per 28 square feet of assembly area without fixed seats. Based on the design, the chapel would require an estimated 313 stalls. The campus currently houses a total of 706 students with the addition of 200 students once the proposed expansion occurs. Based on the requirement of 0.75 parking stall per person, a total of 680 stalls would be required for the dormitories at master plan buildout.

A parking study was prepared for the proposed project that included an analysis of the parking code requirements imposed by other jurisdictions. Parking requirements for college campuses from 20 jurisdictions within Southern California were reviewed. In order to calculate a “code-like” parking requirement for The Master’s College and to evaluate whether a significant parking impact would occur, dormitories and total student enrollment were considered. The study found that a common student enrollment parking ratio is 0.33 space per student. The study also found that the requirement of 0.75 parking space per dormitory bed is an appropriate ratio. According to that comparative parking analysis, a total of 1,241 spaces would be required to adequately serve the proposed campus expansion, including 561 spaces based on a full- and part-time student enrollment of 1700 and 680 spaces based on a total of 906 dormitory beds.

A summary of the existing parking supply, UDC requirements, and the code-like requirements associated with the proposed master plan is summarized in **Table 5.10-9, Master Plan Parking Summary**. As the master plan would provide an additional 261 spaces in excess of UDC requirements and 13 spaces above the calculated code-like requirements, the proposed master plan would not result in a significant parking impact.

Parking for the 54 condominium units proposed within TTM 66503 would be provided on site and in accordance with the UDC. The lots would be sold to a home development company and subsequent development plans will be reviewed by the Planning Division to ensure consistency with approvals and the UDC. As such, parking impacts would be less than significant. Additionally, as the proposed extension of Dockweiler and Deputy Jake Drives, parkland/open space dedication, and water tank replacement would not generate a parking demand; associated impacts would be less than significant.

**Table 5.10-9
Master Plan Parking Summary**

Land Use	Stalls
UDC Requirements	
Chapel	313
Dormitory Beds	680
Total Required	993
Code-Like Parking Requirements	
Dormitory Beds	680
Student Enrollment of 1700 (full- and part-time)	561
Total Required	1,241

Land Use	Stalls
Current Supply	997
Net Additions	257
Total Proposed	1,254
Surplus Parking Stalls	
Per UDC Requirements	261
Per Code-Like Requirements	13

Source: Parking Analysis, Master's College Master Plan, June 2008.

Alternative Transportation

The proposed project is forecast to generate 1,884 ADT. The conversion to person trips is accomplished by using the CMP guidelines (multiplying the ADT by an occupancy factor of 1.4) that result in a total of 2,660 average daily person trips. Applying the MTA's factor for converting total person trips to transit trips (0.035) results in approximately 90 new total daily transit trips and approximately 8 new peak hour transit trips due to the proposed project.

The proposed project incorporates bus standards and design features that support and facilitate transit use. The City of Santa Clarita Transit Division has determined that with transit provisions designed into the project and with the payment of fees, the project will not have a significant transit impact.³ Transit service is evaluated on an as-needed basis. If additional fixed route service will be needed near the project site in the future, the project would coordinate with the transit provider to identify appropriate bus stop/turn out locations.

The project does not propose any major disruptions to alternative transportation usage around the project area. Existing bus turnouts and bicycle racks will not be removed or demolished. As a result, impacts to alternative transportation would be less than significant.

MITIGATION MEASURES ALREADY INCORPORATED INTO THE PROJECT

No mitigation measures pertaining to transportation and circulation have been incorporated into the project.

³ Cori Hill, City of Santa Clarita Transit Division, personal communication with Impact Sciences, Inc., on February 12, 2007.

MITIGATION MEASURES PROPOSED BY THIS EIR

At the CMP monitoring intersection of Sierra Highway at Placerita Canyon Road, the project has been shown to cause a significant impact. The following mitigation measures are recommended to minimize the Sierra Highway at Placerita Canyon Road intersection to a less than significant level:

- 5.10-1:** Sierra Highway shall be restriped to include a northbound right-turn lane at the intersection of Sierra Highway and Placerita Canyon Road.
- 5.10-2:** The two westbound through lanes of Placerita Canyon Road at Sierra Highway shall be reconfigured to a shared through/left-/right-turn lane and a designated right-turn lane through striping.
- 5.10-3:** The traffic signal at Placerita Canyon Road and Sierra Highway shall be modified for split phasing for Placerita Canyon Road approaches and provide right-turn overlap phasing for northbound (Sierra Highway) right-turn lanes.

CUMULATIVE IMPACTS

The above analysis used the updated SCVCTM Interim Year horizon as the basis for background traffic conditions, which included cumulative development within the City through a general horizon year of 2018 to 2020. Cumulative projects were incorporated into the impact analysis from the outset and have therefore, been addressed in the analysis above.

Within the Santa Clarita Valley, the County and the City have established B&T Districts to manage the many significant infrastructure improvements planned to occur within the Valley. The project site is located within the Via Princessa District and the project will pay fees or construct eligible improvements.

The Via Princessa B&T District has recently been updated and is considered a full improvement district. The implication of this is that the B&T fees collected within the district have been calculated to cover all anticipated improvements necessary to build out the arterial roadway network as outlined in the City's General Plan Circulation Element. **Mitigation Measure 5.10-4** is proposed based on the Santa Clarita Valley Cumulative Buildout Scenario in order to reduce traffic related impacts of the cumulative projects to below a level of significance.

CUMULATIVE MITIGATION MEASURES

5.10-4: The project shall fund its calculated fair share of improvements to augment the capacities of affected roadways.

UNAVOIDABLE SIGNIFICANT IMPACTS

Project-Specific Impacts

The impact identified at the intersection of Placerita Canyon Road and Sierra Highway would be less than significant with implementation of **Mitigation Measures 5.10-1** through **5.10-3**.

Cumulative Impacts

Implementation of **Mitigation Measure 5.10-4** would result in a less than significant cumulative impact.