COSTCO

COMMERCIAL COMPLEX

Revision II Recirculated Transportation/Traffic Section
Draft Environmental Impact Report

December 2004

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REVISION II RECIRCULATED TRANSPORTATION / TRAFFIC SECTION
DRAFT ENVIRONMENTAL IMPACT REPORT

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Executive Summary

Due to revisions made to the ~~Recirculated~~ September, 2004 Final EIR Transportation/Traffic Section, the list of mitigation measures and residual impacts shown in the Executive Summary of the ~~Draft~~ Final EIR from ~~August~~ September, 2004~~3~~ and the ~~Recirculated~~ Transportation/Traffic Section is changed. The following Table shows the revised mitigation measures and residual impacts. This table revises and replaces the Transportation/Traffic portion of Table ES-1 of the ~~Draft~~ Final EIR from ~~August~~ September 2004~~3 and Table ES-1 of the Recirculated Transportation/Traffic Section from March 2004~~. Revisions are indicated with new language as underlined text and deleted language is shown ~~in bubbles to the right of the text~~as strike-out text.

TABLE ES-1: SUMMARY OF IMPACTS AND MITIGATION FOR THE COSTCO COMMERCIAL COMPLEX

Impact	Significance	Mitigation Measure(s)	Level of Significance After Mitigation
3L. Transportation/Traffic			
3L1. The proposed project would impact local intersections and exceed significance criteria established by the City of San Dimas at nine intersections.	S	**M-3L.1** A traffic signal shall be constructed at the intersection of Lone Hill Avenue and the proposed project site's full access (south driveway). **M-3L.2** The applicant shall make a fair-share contribution, as reasonably determined by the City of San Dimas based on a nexus study, for the implementation of a second eastbound exclusive right turn lane at the intersection of Lone Hill Avenue/Route 66. ~~Northbound U-turns onto southbound Lone Hill Avenue would be prohibited.~~ **M-3L.3** The applicant shall make fair-share contributions, as reasonably determined by the City of San Dimas based on a nexus study, for future improvements at the following intersections: • Lone Hill Avenue and I-210 Westbound Ramps • Lone Hill Avenue and Auto Center Drive **M-3L.4** The applicant shall make a fair-share contribution, as reasonably determined by the City of San Dimas based on a nexus study, for future improvements at the Arrow Highway/Bonita Avenue/SR-57 Northbound Ramps intersection. **M-3L.5** The intersection of Lone Hill Avenue and Gladstone Street shall be improved with an additional northbound left turn lane and an additional southbound left turn lane. M-3L.6 **The applicant shall make a fair-share**	**Significant and Unavoidable** Impacts can be mitigated at ~~eight~~ seven of the nine intersections. However, six of these intersections are outside the jurisdiction of the Lead Agency and mitigation cannot be assured. Therefore, for purposes of this EIR, they are considered to remain significant. **Unmitigable Impact:** • Lone Hill Avenue/Arrow Highway • SR-57 Southbound Off-Ramp/Arrow HIghway **Mitigable but Outside Lead Agency Jurisdiction:** • Lone Hill Avenue/Route 66 • Lone Hill Avenue/I-210 Westbound Ramps • Lone Hill Avenue/Auto Center Drive • Willow Street/Gladstone Street • Valley Center Avenue/Gladstone Street • Lone Hill Avenue/Kenoma Avenue **Mitigable Impacts** Impacts can be mitigated at this intersection, and it lies within the City of

TABLE ES-1: SUMMARY OF IMPACTS AND MITIGATION FOR THE COSTCO COMMERCIAL COMPLEX - (Cont.)

Impact	Significance	Mitigation Measure(s)	Level of Significance After Mitigation
		contribution, as reasonably determined by the City of San Dimas based on a nexus study, for future signalization at the Willow Street/Gladstone Street,, Valley Center Avenue/Gladstone Street, and Lone Hill Avenue/Kenoma Street intersections.	San Dimas. Coordination would be necessary with Caltrans: • Arrow Highway/Bonita Avenue/SR-57 Northbound Ramps/
3L2. The proposed project would have a less than significant impact on residences located west of the proposed project site along Lone Hill Avenue.	LTS	**M-3L.7** It is recommended that Option 3 (Alternative), Option 3/4 or Option 3/4 (Alternative) or other feasible design variations be implemented to provide better access for residences located west of the proposed project site, along Lone Hill Avenue. The City of San Dimas and the applicant shall work directly with these residents to determine the most feasible design option.	Less than significant.
3L3. The proposed project would provide adequate parking supply.	LTS	No mitigation required.	Less than significant.
3L4. The proposed project would not substantially increase hazards due to a design feature or incompatible use.	LTS	**M-3L.8** With the exception of the southerly full access driveway along Lone Hill Avenue, a median shall be constructed fronting access driveways off of Gladstone Street and Lone Hill Avenue to limit the driveways to right turn in/out only. **M-3L.9** The service driveway proposed at the east side of the proposed project site shall be restricted to right-turn only. Furthermore, a fence shall be built between the proposed Costco site and the railroad right-of-way. **M-3L.10** The applicant shall submit a truck routing plan detailing the routes delivery vehicles will take for entering and exiting the proposed commercial complex. **M-3L.11** The proposed project traffic signal at the intersection of the west access driveway and	Less than significant.

TABLE ES-1: SUMMARY OF IMPACTS AND MITIGATION FOR THE COSTCO COMMERCIAL COMPLEX - (Cont.)

Impact	Significance	Mitigation Measure(s)	Level of Significance After Mitigation
		Lone Hill Avenue shall be coordinated with the signal at the intersection of Lone Hill Avenue and Gladstone Street. The final coordination plan will be based on an assessment of traffic operations at these intersections, which should be conducted after the opening of the project.	
3L5. The proposed project would have adequate emergency access.	LTS	No mitigation is required.	Less than significant.
3L6. The proposed project would significantly impact traffic in the vicinity of schools.	S	Refer to mitigation measure **M-3L.6**. **M-3L.12** With the cooperation and approval of the City of Glendora, the applicant shall make a fair share contribution, as reasonably determined by the City of San Dimas based on a nexus study, for the construction of a traffic signal at the Valley Center Avenue/Gladstone Street intersection, as well as for the widening and re-striping of Gladstone Street in the vicinity of Gladstone Elementary School to provide for one through-lane, a left-turn lane and parking along the south side of Gladstone Street.	**Significant and Unavoidable.** Impacts to this intersection can be mitigated. However, this intersection is outside the jurisdiction of the Lead Agency and mitigation cannot be assured. Therefore, for purposes of this EIR they are considered to remain significant.
3L7. With mitigation, the proposed project would not exceed either individually or cumulatively the established LOS standards at CMP facilities in the project area.	S	Refer to mitigation measure **M-3L.4**.	Less than significant.
3L8. Cumulative development would significantly impact area traffic	S	Refer to mitigation measures **M-3L.1** through **M-3L.6** and **M-3L.12.**	**Significant and Unavoidable.** See Impact 3L1. for explanation.

LTS = Less Than Significant Impact
LTS/M = Less Than Significant Impact with Mitigation Incorporation
S = Significant Impact

Transportation/Traffic

INTRODUCTION

This chapter presents the results of a traffic and circulation study prepared for the proposed project in February, ~~and~~ July, and December ~~-~~2004 by Katz, Okitsu & Associates. A traffic study was prepared for the proposed project in February 2001 and updated in July 2003. These two previous studies analyzed a total of eight intersections in the project study area and were summarized in Section 3L of the Draft EIR circulated August 26, 2003 to October 10, 2003. In response to comments received on the Draft EIR, a new traffic study was prepared in February 2004. The February 2004 study reassesses the project for completion in 2005 and updates the cumulative project list based on new information provided by the City of San Dimas and the City of Glendora. The February 2004 study includes traffic counts taken in January 2004 at the same eight intersections in San Dimas, as well as thirteen additional intersections in and near the City of Glendora. These counts reflect existing conditions since the opening of the eastward extension of the Interstate 210 Freeway from San Dimas to Fontana in 2003.

Comments received on the March 5, 2004 Recirculated Transportation/Traffic Section required that further minor changes and clarifications be made, and a revised version of the traffic study was prepared in July 2004. ~~The following~~That analysis summarized~~s~~ the July 2004 traffic study and amend~~s~~ed and clarified~~s~~ the analysis presented in the March 5, 2004 Recirculated Transportation/Traffic Section. Primarily, changes consist of corrections and changing the significance of impacts to one signalized intersection and three non-signalized intersections from less than significant to significant.

Comments received after the October 6, 2004 Planning Commission meeting required that further traffic analysis be conducted. The following analysis corrects a data analysis error found by a commentor. This analysis error was an incorrect value for the "clearance time" within the Intersection Capacity Utilization (ICU) method utilized to analyze study intersections within the traffic analysis. The analysis was conducted without the proper value of 10 seconds which should be utilized. This 10 seconds represents a delay (for yellow and all-red signal indications and inherent vehicle delay between cycles) within an assumed signal cycle length time of 100 seconds.

The revised analysis is also based on updated trip generation rates (Trip Generation, 7th Edition) and the use of internal trip capture rates. Such internal trip capture rates – defined by the ITE Trip Generation Handbook – had not been utilized previously, but were included in this analysis to provide a more accurate trip generation definition for the project. The internal trip capture methodology acknowledges that different land uses will "attract" trips to and from each other. Therefore, trip generation calculations that consider the project discount store, retail uses, and gas station as single uses can overstate the number of trips that would be present on the surrounding roadway network.

An additional analysis, utilizing fixes to the ICU methodology, no changes to project trip generation, and ITE 6th Edition trip generation rates (as in the July, 2004 FEIR), is summarized

in the Appendix to this document. New language is underlined and deleted language is shown ~~in bubbles to the right of the original~~ as ~~strike-out~~ text.

~~The July 2004 traffic study performed by Katz, Okitsu & Associates is included in the recirculated materials at the end of this document and replaces Appendix E of the Draft EIR.~~ Full sets of ~~T~~technical appendices to the Revision II Transportation/Traffic section, and the alternate analysis provided in Appendix B, ~~traffic study~~ are available for review at City of San Dimas City Hall.

SETTING

The proposed project site consists of 22.83 acres spread over 47 separate parcels. West 5th Street, to be removed as part of the proposed project, extends through the southern portion of the project site east of Lone Hill Avenue. The proposed project site is currently occupied by open land with scattered trees and vegetation and vacant lots. The majority of the previous site uses, including single family residential and commercial/light industrial, have either been abandoned or demolished.[i]

Existing Area Transportation Network

57 Freeway (former Interstate 210) is a major east-west freeway that traverses the Los Angeles metropolitan area. Interstate 210 was recently extended (via the SR-210 designation) eastward from San Dimas to Interstate 15 in San Bernardino County. The freeway previously had an eastern terminus at Interstate 10 and State Route 57, south of the Project site. The north-south portion of the I-210 freeway between San Dimas and Interstate 10 has now been renamed as part of the SR-57 (Orange) freeway. This portion of the freeway is located approximately ¼-mile east of the proposed project site. The 57 Freeway is generally a north-south freeway that extends from Interstate 5 from the south and terminates at Interstate 210 to the north. Freeway interchanges in the project vicinity are located at Covina Boulevard southeast of the proposed project site and at West Arrow Highway and Auto Centre Drive.

Interstate 210 is an eight-lane east-west freeway that connects San Dimas and Glendora on the east with Interstate 5 to the west. The Interstate 210 was recently extended from its previous terminus in San Dimas (via the State Route 210 designation) from its interchange with the SR-57 freeway to the Interstate 15 freeway in Fontana. Construction is currently underway to extend the Interstate 210 further eastward from the terminus in Fontana to Interstate 215 in San Bernardino. Interstate 210 has a freeway interchange north of the proposed project site at Lone Hill Avenue and northwest of the project site at Sunflower Avenue. Interstate 210 is located approximately one mile north of the proposed project site.

Interstate 10 is a transcontinental freeway located approximately 3 miles south of the proposed project site. Interstate 10 provides regional access to the proposed project site from the Cities of West Covina, Covina, Walnut, Pomona, Chino and Ontario.

Sunflower Avenue is a four-lane secondary roadway that provides north-south access within western San Dimas and southwestern Glendora. In the vicinity of Gladstone Street, the roadway

has four travel lanes with a striped centerline. The northern terminus of the roadway is at a full interchange with the I-210 freeway. Near this northern terminus, the roadway's four travel lanes transition into two travel lanes with a striped centerline.

Lone Hill Avenue is a four-lane north arterial roadway that provides north-south access between Route 66 and the Glendora foothills on the north to southern San Dimas. The roadway is predominantly divided with a center raised median and turn pockets at intersections. The two nearest signalized intersections are Gladstone Street north of the proposed project site and Arrow Highway south of the proposed project site. Lone Hill Avenue terminates as an arterial roadway at Covina Boulevard to the south and at Alosta Avenue to the north. Lone Hill Avenue has a full diamond interchange with Interstate 210 north of the proposed project site.

Amelia Avenue is a two-lane east-west secondary roadway that is located on the eastern end of the site. The roadway has a striped centerline and serves residential, light industrial and commercial uses. On-street parking is allowed.

Route 66 and Foothill Boulevard constitute a four-lane regional arterial that provides east-west access across both the San Gabriel Valley and western San Bernardino County. West of Amelia Avenue, the roadway lies within Glendora as Route 66. East of Amelia Avenue, the roadway lies within San Dimas and is named Foothill Boulevard. The western continuation of Foothill Boulevard from Amelia Avenue begins at a point further north of the Route 66-Foothill Boulevard intersection. Within the study area, the roadway is primarily divided by a landscaped raised median, with turn pockets at major intersections.

Auto Centre Drive is a two-lane east-west roadway that provides access to the San Dimas auto dealers and the Walmart development, in the area west of the SR-57 freeway. Immediately east of Amelia Avenue, the roadway name transitions into Allen Avenue.

Gladstone Street is a two-lane roadway that provides east-west access across San Dimas and to La Verne on the east and southern Azusa on the west. The roadway defines the northern boundary of the Project site, and serves both light industrial and residential uses. Parking is allowed along most segments of the roadway. In the vicinity of Lone Hill Avenue, the roadway provides left turn pockets at intersections and a continuous left turn lane. Parking is prohibited to the west of Lone Hill Avenue.

Arrow Highway is a six-lane east-west regional arterial that provides access across the eastern San Gabriel Valley and western San Bernardino County. It is located approximately ½-mile south of the proposed project site. Along most portions of the route within San Dimas, the roadway is divided by a landscaped/raised median and parking is prohibited. Turn pockets are provided at major intersections. The intersection of Lone Hill Avenue with Arrow Highway is controlled by a traffic signal that provides protected left-turn phasing in all directions

Existing Area Transit Service

The Project study area is served by bus transit lines operated by Foothill Transit. There is no major transit access point, such as a transfer center, within ¼-mile walking distance of the Project site. Therefore, no trip reduction credits were taken for the Project for potential transit use. The following individual transit lines provide service adjacent to the Project site, or within

the study area:

Foothill Transit Line 187: This line provides service along Foothill Boulevard-Route 66, on its route between downtown Claremont/Montclair and Pasadena. This line runs from approximately 4:00 a.m. to 12:00 a.m. on weekdays at an approximate peak frequency of 15 minutes. The line also provides service on Saturdays, Sundays, and holidays.

Foothill Transit Line 189: This line provides service along Foothill Boulevard-Route 66, as a weekday deviation from Line 187, on its route between downtown Claremont/Montclair and Pasadena. The deviation provides service on portions of Gladstone Street, Lone Hill Avenue, and Arrow Highway.

Foothill Transit Line 492: This line provides service along Arrow Highway and Bonita Avenue on its route between downtown Claremont/Montclair and El Monte/Los Angeles. This line runs from approximately 5:00 a.m. to 9:00 a.m. on weekdays at an approximate peak frequency of 30 minutes. The line also provides service on Saturdays, Sundays, and holidays.

Foothill Transit Line 494: This line provides local service within the study area (although it utilizes freeways to reach Los Angeles along the western portion of the route), along portions of Lone Hill Avenue and Arrow Highway. The line's eastern terminus is at the San Dimas Park & Ride, east of the study area limits. This line runs on weekdays at a frequency of 30 minutes during the peak a.m. and p.m. commute periods.

Foothill Transit Line 690: This line provides express service along the I-210 and Foothill Boulevard corridor between Montclair/Claremont and Pasadena. The line does not serve local streets within the Project study area, but provides direct service to the Lone Hill Park & Ride facility at Lone Hill Avenue and the I-210 freeway. This line runs on weekdays during the peak a.m. and p.m. commute periods.

Planned Transit Service

Phase II of the Metro Gold Line is currently planned for completion between East Pasadena and Claremont by 2009. Initial planned segments of Phase II would extend the line to Irwindale from Pasadena. Phase I of this light rail transit line was completed between downtown Los Angeles and East Pasadena in Summer 2003. Phase II would be constructed by the Pasadena Blue Line Construction Authority, and handed over to the MTA for operation and maintenance upon completion of construction and testing. An EIR is currently being conducted for Phase II.

The nearest stations to the project site on the Gold Line would be at the Santa Fe Depot in San Dimas, near the intersection of Cataract Avenue/Bonita Avenue, and in Glendora near the intersection of Glendora Avenue/Route 66. The San Dimas station would be located approximately 1.5 miles from the project site, and the Glendora station would be approximately 3.0 miles from the project site.

As these stations would be located farther than the typical accepted walking distance from a major transit stop (one-quarter to one-half mile), and the nature of the proposed project uses are generally not conducive to transit use, it is assumed that no measurable reductions in trip

generation could be applied due to the potential opening of the light rail line. Furthermore, as development of the line is uncertain at this point due to MTA budget constraints, it is unlikely that service would begin through Glendora and San Dimas before 2009, well beyond the Project Year of 2005. The eastern terminus of the line within that timeframe could be Irwindale (under which scenario no service would run near the Project site) or Claremont, depending upon the final alternative selected during the environmental review process.

It is acknowledged that the Gold Line Project could potentially cause delay at the Lone Hill Avenue and Gladstone Street at-grade railroad crossings. When gates are down and Gold Line trains are crossing in one or both directions, certain movements will be blocked at the intersection of Lone Hill Avenue/Auto Centre Drive, as the tracks cross Lone Hill Avenue immediately south of this intersection. Delay in north-south movements along Lone Hill Avenue, and delay in east-west movements along Gladstone Street, could cause queuing and blocking issues at nearby intersections and driveways. It is not feasible to quantify such potential delay. The traffic section of the Gold Line EIR document does not identify any specific traffic impacts from the Gold Line within the project study area. In any event, there is no evidence that Gold Line operations would adversely affect traffic flows in San Dimas. The Gold Line Draft EIR concluded that there would not be any significant impacts on traffic in San Dimas after implementation of the proposed mitigation measures.

Quantifying corridor delay on Lone Hill Avenue and Gladstone Street would be speculative at this point. The operating frequency of the constructed line will be unknown until final design is initiated. Currently, the environmental process for the Gold Line is based on a number of project alternatives – one of these alternatives is a bus improvement alternative with no rail service. Therefore, it is not reasonably foreseeable that light rail service will be established across the Lone Hill and Gladstone crossings.

Therefore, no analysis was conducted of operation of the Gold Line at the nearby grade crossings on Lone Hill Avenue and Gladstone Street.

Existing Traffic Conditions

LOS Definitions. The efficiency of traffic operations at a location is measured in terms of Level of Service (LOS), which is a description of traffic performance at intersections. The level of service concept is a measure of average operating conditions at intersections during an hour. It is based on volume-to-capacity (V/C) ratio with the ability to carry (the capacity) compared to the level of traffic during the peak hours (volume). This method is also known as the Intersection Capacity Utilization (ICU) technique. Levels range from A to F with A representing excellent (free-flow) conditions and F representing extreme congestion. Table 3L-1 describes the level of service concept and the operating conditions expected under each level of service for signalized intersections.

Figure 3L-1 shows the study area intersection locations and Figure 3L-2 shows the existing number of through lanes and intersection controls.

Project Area LOS. A field inventory was conducted of all study intersection locations. The inventory included review of intersection geometric layout, traffic control, lane configuration, posted speed limits, land use and parking. This information is required for the subsequent traffic

impact analysis. Figure 3L-2 includes the existing number of through lanes and intersection controls. The majority of traffic volumes for the AM and PM peak hours were obtained from traffic counts taken in January 2004. Additional information was provided by the City of Glendora. Counts were conducted weekdays from 7:00 AM to 9:00 AM, and 4:00 PM to 6:00 PM with the highest single hour traffic volumes at each location used for purposes of the impact analysis. Analysis of additional time periods outside the traditional AM and PM peak hours is generally not required since other time periods usually have lesser traffic volumes than during the typical weekday commute periods. Saturday mid-day peak hour counts were conducted from 12:00 PM to 2:00 PM at nine selected intersections. Fewer intersections were analyzed on Saturday because peak hour traffic on Saturday is generally less and project impacts are not anticipated to extend as far from the site as during peak hours on weekdays, i.e. if there are no impacts at a given intersection, it is assumed that the next intersection further out will not be impacted. Therefore, only intersections closer to the site were selected for analysis.

Figure 3L-3 shows the existing weekday AM peak hour traffic volumes at the 21 study intersections. Figure 3L-4 shows the existing weekday PM peak hour traffic volumes at the 21 study intersections. Figure 3L-5 shows the existing Saturday peak hour traffic volumes at the study intersections.

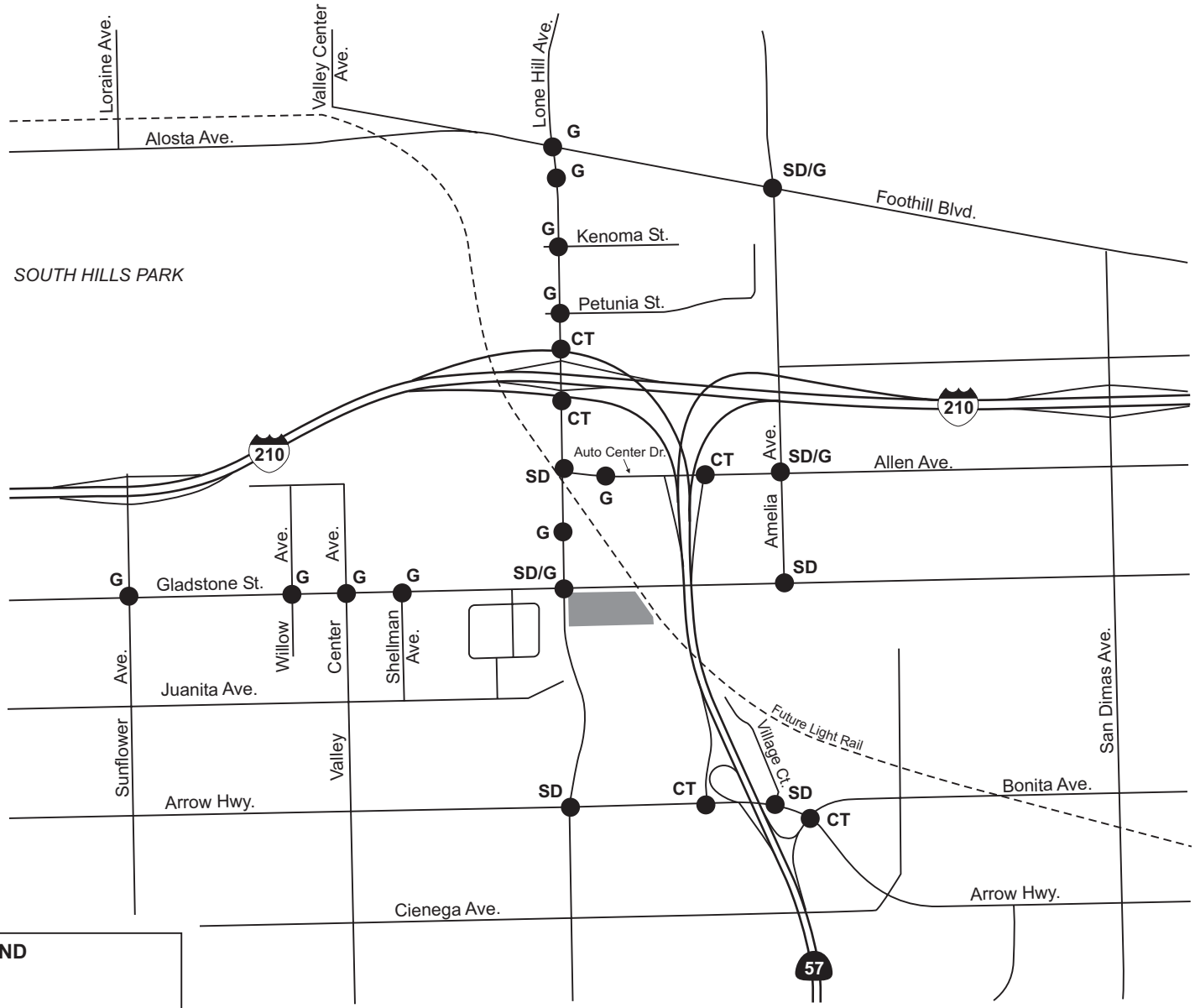
TABLE 3L-1: INTERSECTION LEVEL OF SERVICE DEFINITIONS

LOS	Interpretation	Signalized Intersection Volume to Capacity Ratio (ICU/CMA)	Stop-Controlled Intersection Average Stop Delay (HCM)
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	0.000 - 0.600	≤ 10 seconds
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	0.601 - 0.700	> 10 and ≤ 15 seconds
C	Good operation. Occasionally backups may develop behind turning vehicles. Most drivers felt somewhat restricted.	0.701 – 0.800	> 15 and ≤ 25 seconds
D	Fair operation. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.	0.801 - 0.900	> 25 and ≤ 35 seconds
E	Poor Operations. Some long-standing vehicular queues develop on critical approaches.	0.901 – 1.000	> 35 and ≤ 50 seconds
F	Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may prevent movements of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.	Over 1.000	> 50 seconds

Source: Highway Capacity Manual (HCM), Special Report 209. Transportation Research Board, Washington D.C., 1997.

Level of service D is generally considered to be the lowest acceptable LOS in an urban or suburban area. Level of service E and F are considered to be unacceptable operating conditions, which warrant mitigation. The V/C and LOS results of the study area intersections are summarized below in Table 3L-2. As shown in Table 3L-2, there are four study intersections that currently operate at LOS E or worse during the weekday PM peak period. The following are some highlights of the poorer performing intersections:

Project-related level of service worksheets for the Revision II analysis are provided in Appendix C. Existing and pre-Project scenario worksheets were not included in Appendix C, as only the V/C value was modified by +0.010 and no volumes were modified. Full sets of these worksheet, both for the Revision II Transportation/Traffic section and the alternate analysis summarized in Appendix B, are available at City of San Dimas City Hall.



LEGEND

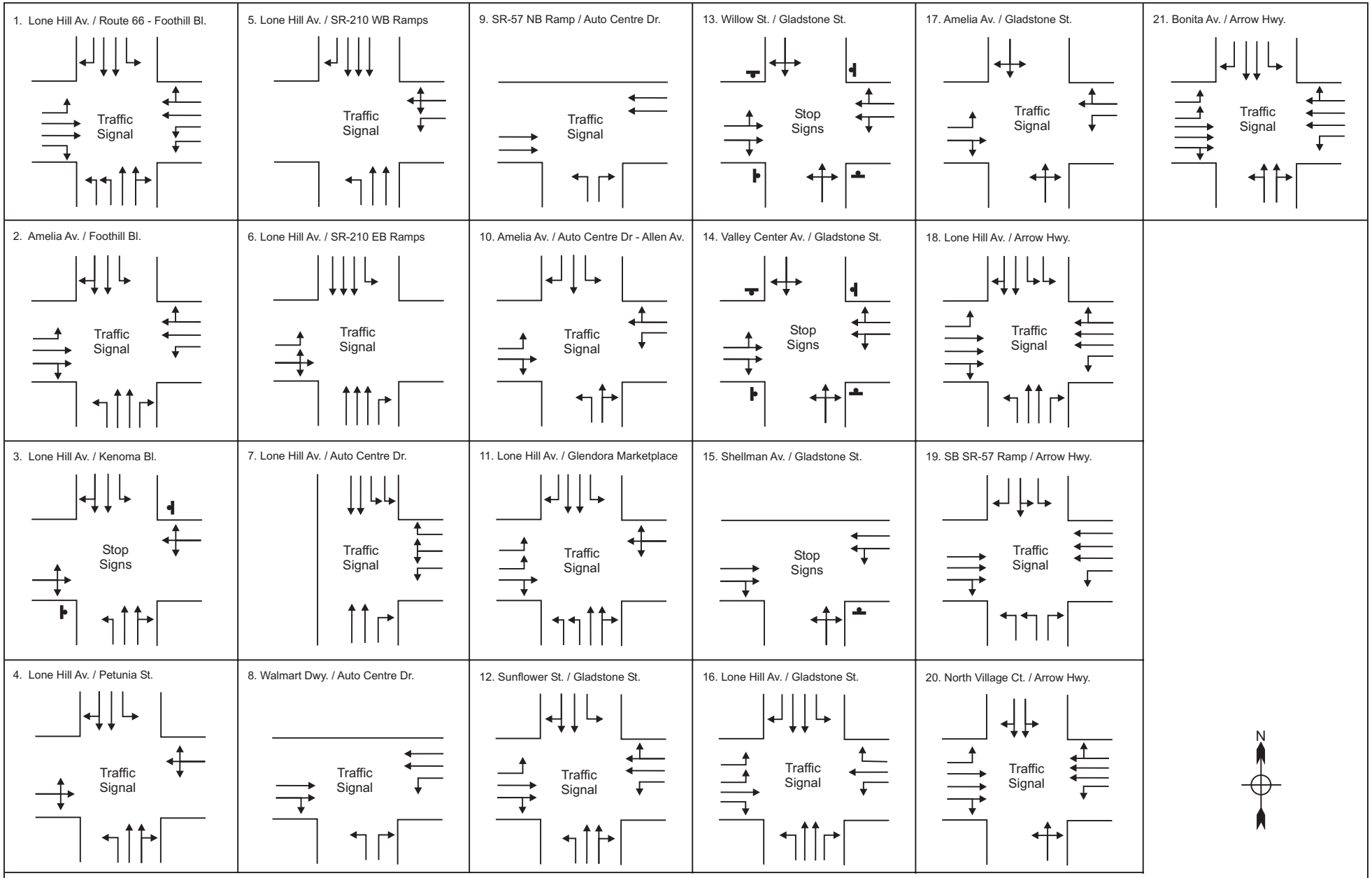
- Project Location
- Study Intersection
- **G, SD** Glendora, San Dimas Jurisdiction
- **CT** Caltrans Jurisdiction

Katz, Okitsu & Associates
Traffic Engineers and Transportation Planners

Costco Commercial Complex, San Dimas, CA., Traffic Study

Figure 3L-1

Study Intersections



Katz, Okitsu & Associates
Traffic Engineers and Transportation Planners

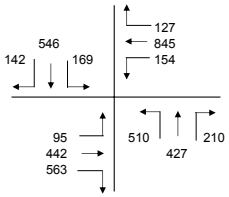
Costco Commercial Complex, San Dimas, CA., Traffic Study

Figure 3L-2

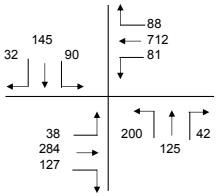
Intersection Lane Configuration and Control

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

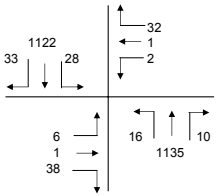
Intersection 1
N/S Lone Hill Ave.
E/W Route 66



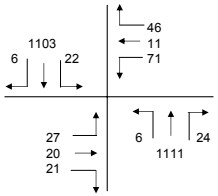
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.



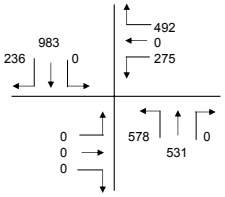
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



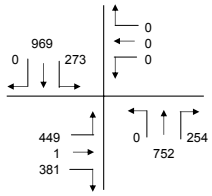
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



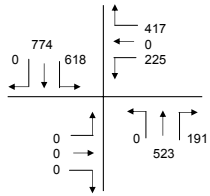
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



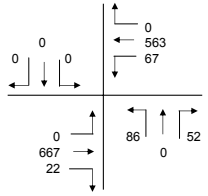
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



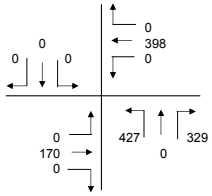
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



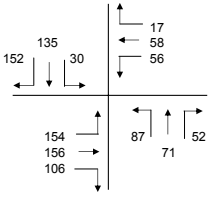
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



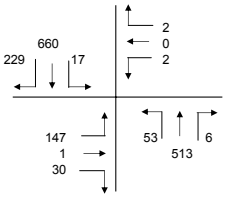
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



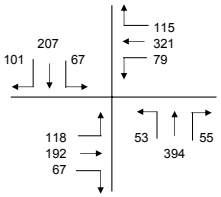
Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



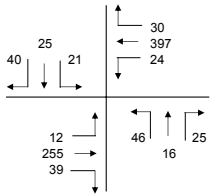
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



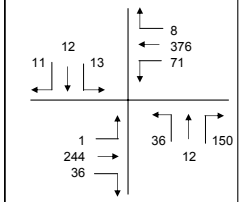
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



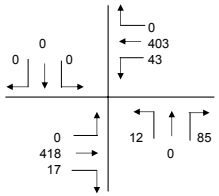
Intersection 13
N/S Willow St.
E/W Gladstone St.



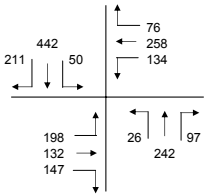
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



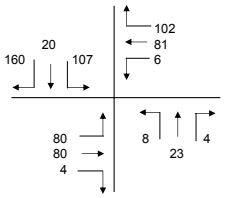
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



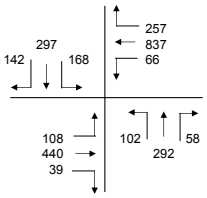
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



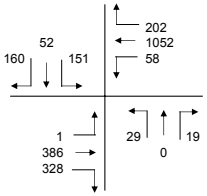
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



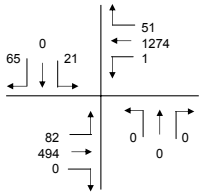
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



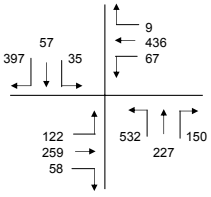
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.

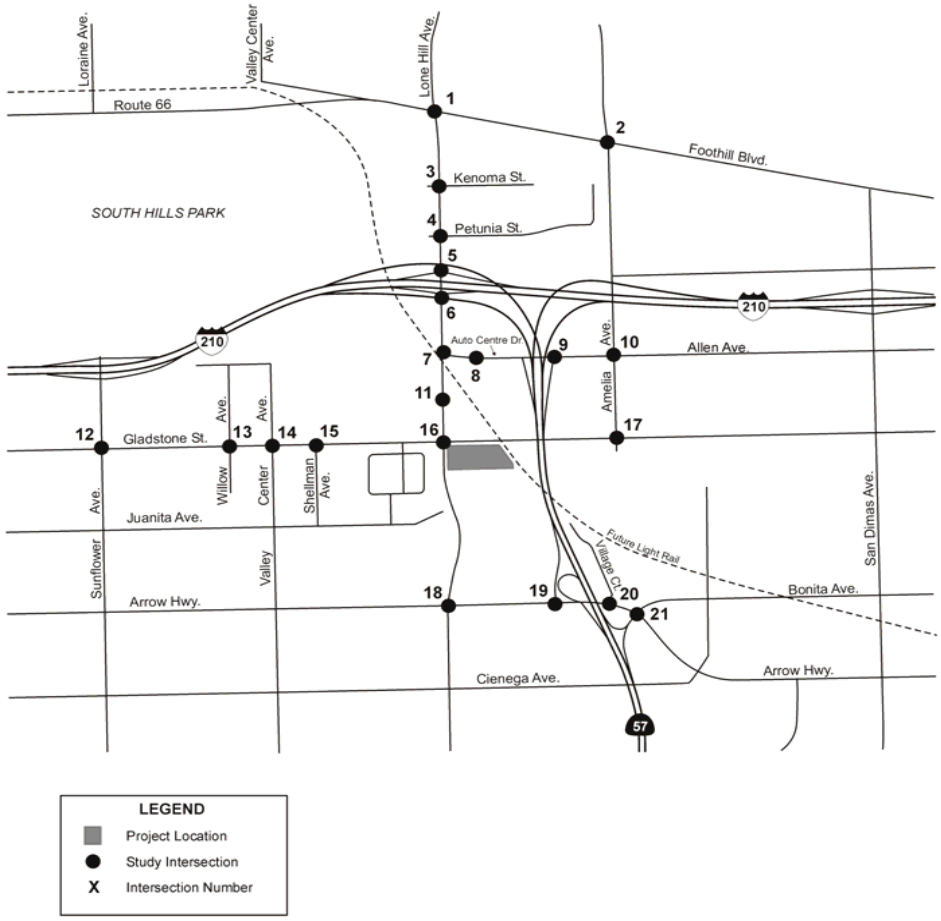


Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





Katz, Okitsu & Associates
Traffic Engineers and Transportation Planners

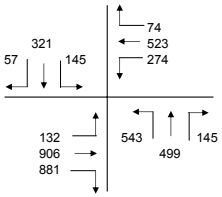
Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-3

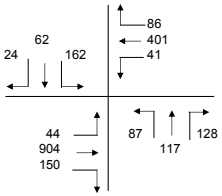
Existing (Year 2004) Weekday AM Peak Hour Traffic Volumes

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

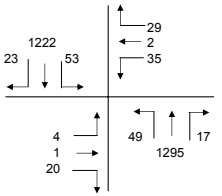
Intersection 1
N/S Lone Hill Ave.
E/W Route 66



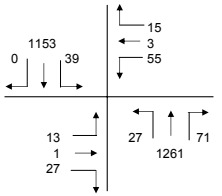
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.



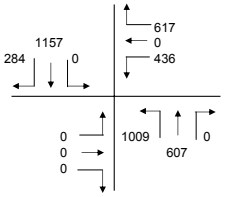
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



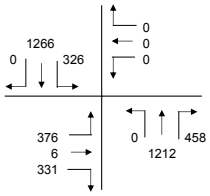
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



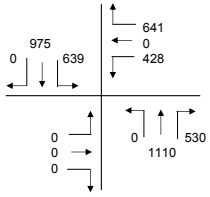
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



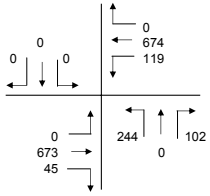
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



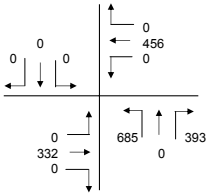
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



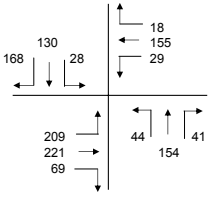
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



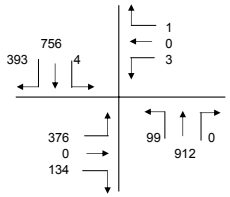
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



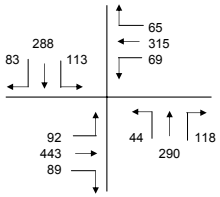
Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



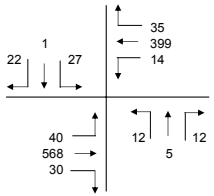
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



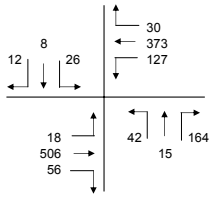
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



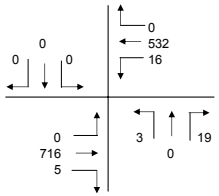
Intersection 13
N/S Willow St.
E/W Gladstone St.



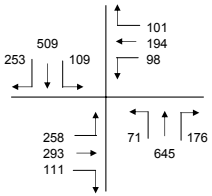
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



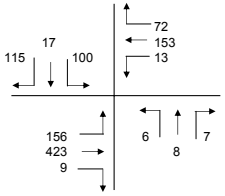
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



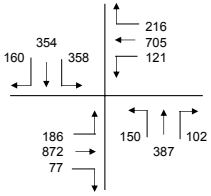
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



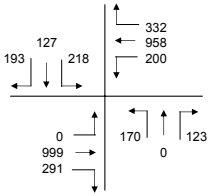
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



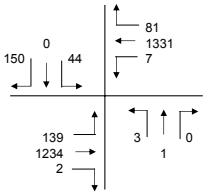
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



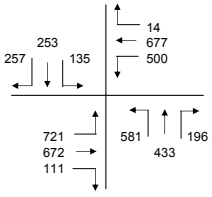
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.

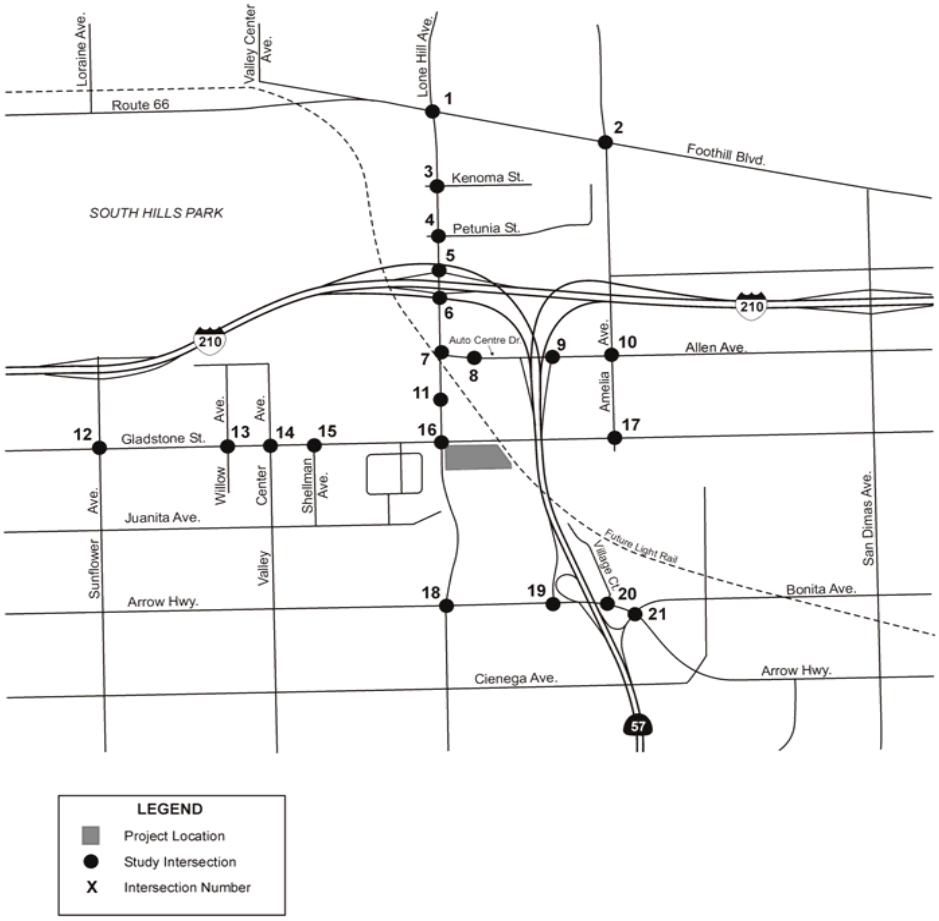


Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





Katz, Okitsu & Associates
Traffic Engineers and Transportation Planners

Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-4

Existing (Year 2004) Weekday PM Peak Hour Traffic Volumes

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

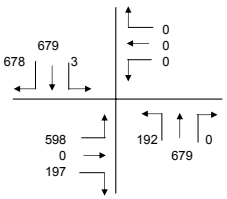
Intersection 1
N/S Lone Hill Ave.
E/W Route 66

Not Analyzed for Saturday

Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps

Not Analyzed for Saturday

Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



Intersection 12
N/S Sunflower St.
E/W Gladstone St.

Not Analyzed for Saturday

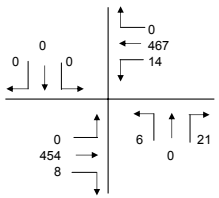
Intersection 13
N/S Willow St.
E/W Gladstone St.

Not Analyzed for Saturday

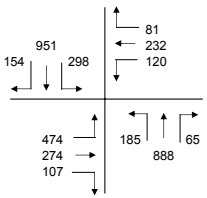
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.

Not Analyzed for Saturday

Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



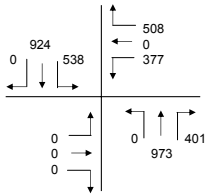
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



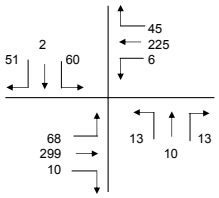
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.

Not Analyzed for Saturday

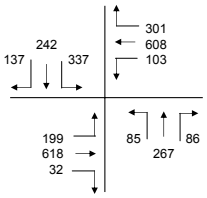
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



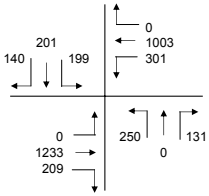
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.

Not Analyzed for Saturday

Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



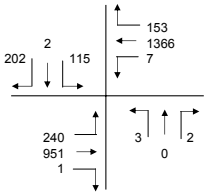
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.

Not Analyzed for Saturday

Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



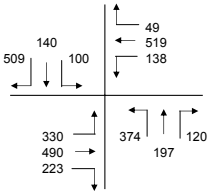
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps

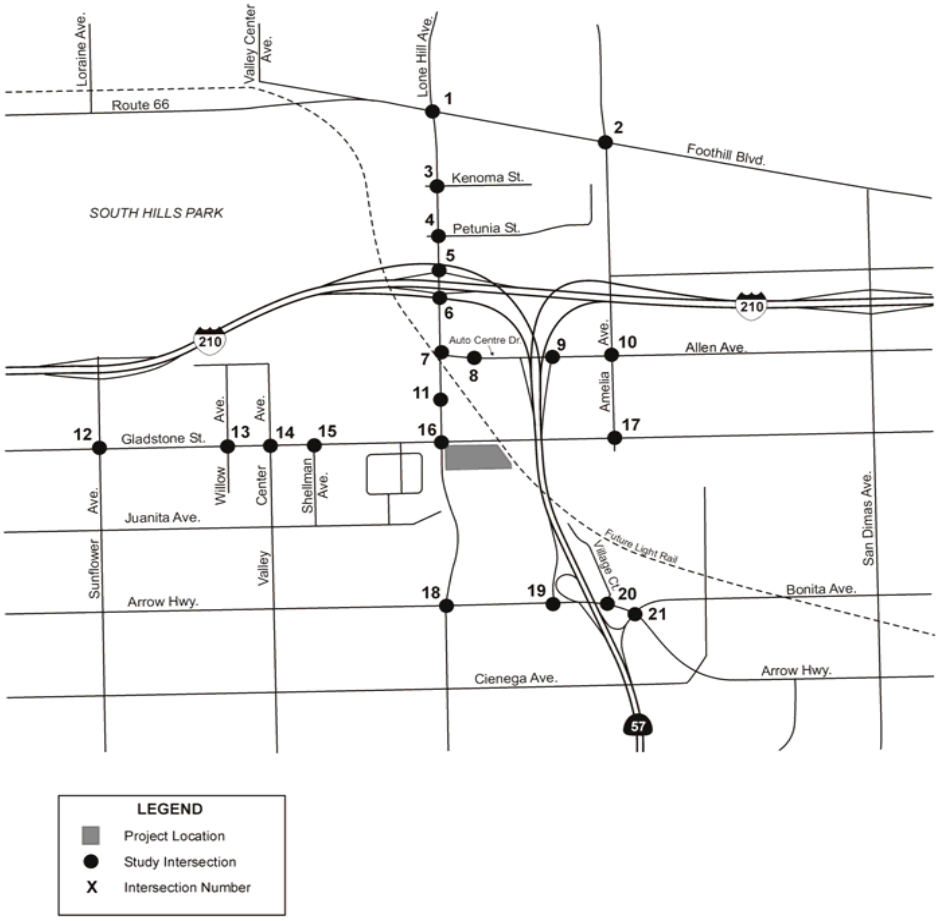
Not Analyzed for Saturday

Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.

Not Analyzed for Saturday

Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





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Katz, Okitsu & Associates
Traffic Engineers and Transportation Planners

Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-5

Existing (Year 2004) Saturday Peak Hour Traffic Volumes

TABLE 3L-2: EXISTING LEVELS OF SERVICE DURING THE PEAK HOURS (2004)

	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak**	
Intersection Location	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Lone Hill Ave./Route 66	~~0.693~~ 0.793	~~B~~C	~~0.758~~ 0.858	~~C~~D	-	-
2. Amelia Ave./Route 66	~~0.454~~ 0.554	A	~~0.489~~ 0.589	A	-	-
3. Lone Hill Ave./Kenoma St. *	31.1 sec.	D	>100 s.	F	-	-
4. Lone Hill Ave./Petunia St.	~~0.465~~ 0.565	A	~~0.494~~ 0.594	A	-	-
5. Lone Hill Ave./I-210 Wb ramps	~~0.874~~ 0.974	~~D~~E	~~1.257~~ 1.357	F	-	-
6. Lone Hill Ave./I-210 Eb ramps	~~0.608~~ 0.708	~~B~~C	~~0.725~~ 0.825	~~C~~D	-	-
7. Lone Hill Ave./Auto Centre Dr.	~~0.490~~ 0.590	A	~~0.769~~ 0.869	~~C~~D	~~0.657~~ 0.757	~~B~~C
8. Walmart Dwy./Auto Centre Dr.	~~0.311~~ 0.411	A	~~0.451~~ 0.551	A	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	~~0.391~~ 0.491	A	~~0.571~~ 0.671	~~A~~B	-	-
10. Amelia Ave./Auto Centre Dr.-Allen	~~0.348~~ 0.448	A	~~0.378~~ 0.478	A	-	-
11. Lone Hill Ave./Gl. Marketplace Dwy.	~~0.271~~ 0.371	A	~~0.408~~ 0.508	A	~~0.484~~ 0.584	A
12. Sunflower St./Gladstone St.	~~0.392~~ 0.492	A	~~0.408~~ 0.508	A	-	-
13. Willow St./Gladstone St. *	10.0 sec.	B	11.4 sec.	B	-	-
14. Valley Center Ave./Gladstone St. *	10.5 sec.	B	13.5 sec.	B	-	-
15. Shellman Ave. /Gladstone St. *	11.1 sec.	B	12.2 sec.	B	11.1 sec.	B
16. Lone Hill Ave./Gladstone St.	~~0.378~~ 0.478	A	~~0.514~~ 0.614	~~A~~B	~~0.757~~ 0.857	~~C~~D
17. Amelia Ave.-Pearlanna/Gladstone St.	~~0.349~~ 0.449	A	~~0.427~~ 0.527	A	~~0.290~~ 0.390	A
18. Lone Hill Ave./Arrow Hwy.	~~0.496~~ 0.596	A	~~0.563~~ 0.663	~~A~~B	~~0.502~~ 0.502	A
19. Arrow Hwy./Sb SR-57 Off-Ramp	~~0.494~~ 0.594	A	~~0.591~~ 0.691	~~A~~B	~~0.696~~ 0.796	~~B~~C
20. Arrow Hwy./North Village Ct.	~~0.368~~ 0.468	A	~~0.477~~ 0.577	A	~~0.595~~ 0.695	~~A~~B
21. Arrow Hwy./Bonita Ave./SR-57 Nb ramps	~~0.717~~ 0.817	~~C~~D	~~0.938~~ 1.038	~~E~~F	~~0.714~~ 0.814	~~C~~D

** Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion.*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004.~~ December 2004.

- Poor LOS at the Lone Hill Avenue/Route 66-Foothill Blvd. intersection is the result of high eastbound right turn volumes and high northbound left turn volumes.

- Poor LOS at the Lone Hill Avenue/Kenoma Avenue intersection is the result of delay experienced by motorists attempting to cross or enter traffic flows on Lone Hill Avenue from Kenoma Avenue. This intersection is not signalized, but has stop sign control for the Kenoma Avenue approaches.

- Poor LOS at the Lone Hill Avenue/I-210 westbound ramps intersection is due to high westbound right turn movements (from the off-ramp) and high northbound left turn volumes (onto the on-ramp).

- Poor LOS at the Lone Hill Avenue/I-210 eastbound ramps intersection is due to high northbound right turn movements and high southbound left turn volumes (both onto the on-ramp).

- Poor LOS at the Lone Hill Avenue/Gladstone Street intersection is due to high northbound and southbound left turn volumes.

- Poor LOS at the Bonita Avenue/Arrow Highway/SR-57 Northbound Ramps intersection is caused by high volumes at the northbound approach (off-ramp) and high left turn volumes at the eastbound (Arrow Highway) and southbound (Bonita Avenue) approaches.

There are two school sites located in the vicinity of the proposed project site. The closest school is Gladstone Elementary School located a little over ¼-mile west of the proposed project site, south of Gladstone Street. This elementary school serves residential areas located primarily to the west of the proposed project site. A second school site is located at the southwest corner of Auto Centre Drive and Allen Avenue at Amelia Avenue.

APPLICABLE REGULATIONS

County of Los Angeles

New projects within the County must comply with the Congestion Management Program (CMP) for Los Angeles County, which was adopted by the Los Angeles County Metropolitan Transportation Authority (LACMTA) in November 1995 pursuant to state law. The CMP involves monitoring traffic conditions on the designated transportation network, performance measures, analysis of the impact of land use decisions on the transportation network, and mitigation to reduce impacts of the network.

Appendix D of the CMP includes Transportation Impact Assessment (TIA) guidelines. The TIA guidelines require analysis at monitored street intersections and segments, including freeway on- or off-ramp intersections, at which a project is expected to add 50 or more peak hour vehicle

trips, and mainline freeway or ramp monitoring locations where the project will add 150 or more peak hour trips. If a project does not add, but merely shifts trips at a given monitoring location, the CMP analysis is not required.

An evaluation of transit impacts is required by the CMP for all projects for which an EIR will otherwise be prepared. The CMP also requires that transit system operators receive the NOP for all EIRs to evaluate the potential impacts on existing transit systems, and establishes evaluation procedures. Transit corridors and centers subject to CMP requirements are identified in Appendix F of the CMP. [1]

City of San Dimas

The City of San Dimas Planning Department is responsible for transportation issues within the City boundaries. The proposed project would comply with the goals, objectives and policies outlined in the City of San Dimas General Plan's Circulation Element.[2] The Circulation Element identifies the general location and extent of the existing and proposed major roads, highways, trails, railroads, public transit routes and stations, and other public utilities and public facilities.

City of Glendora

The City of Glendora was consulted for information regarding intersections and cumulative projects near the proposed project site. The City of Glendora reviewed the Draft EIR and provided comments. This revised section incorporates responses to those comments concerning traffic.

IMPACTS AND MITIGATION

Methodology

The intersection analysis was performed utilizing the Intersection Capacity Utilization (ICU) Methodology for signalized intersections. County of Los Angeles standards for traffic studies were applied to all of the study intersections. The TRAFFIX software was used to perform the analysis for the surface street network. The Institute of Traffic Engineer's *Trip Generation Manual, ~~Sixth~~ Seventh Edition* was used to estimate project-generated trips.

The intersections studied are listed below. These intersections were selected in consultation with City of San Dimas and the City of Glendora. They were analyzed for the weekday AM and PM peak hours. Nine of the intersections (noted with asterisks) were also analyzed during the Saturday mid-day peak period.

1 Los Angeles County MTA, *Congestion Management Plan*, 2002.
2 City of San Dimas, *General Plan – Circulation Element*, 1991.

1. Lone Hill Avenue (NS)/Route 66 (EW)
2. Amelia Avenue (NS)/Route 66 (EW)
3. Lone Hill Avenue (NS)/Kenoma Street (EW)
4. Lone Hill Avenue (NS)/Petunia Street (EW)
5. Lone Hill Avenue (NS)/I-210 Westbound Ramps (EW)
6. Lone Hill Avenue (NS)/I-210 Eastbound Ramps (EW)
7. Lone Hill Avenue (NS)/Auto Centre Drive (EW)*
8. Walmart Driveway (NS)/Auto Centre Drive (EW)
9. SR-57 Northbound Off-Ramp (NS)/Auto Centre Drive (EW)
10. Amelia Avenue (NS)/Auto Centre Drive-Allen Avenue (EW)
11. Lone Hill Avenue (NS)/Glendora Marketplace Driveway (EW) *
12. Sunflower Street (NS)/Gladstone Street (EW)
13. Willow Street (NS)/Gladstone Street (EW)
14. Valley Center Avenue (NS)/Gladstone Street (EW)
15. Shellman Avenue (NS)/Gladstone Street (EW) *
16. Lone Hill Avenue (NS)/Gladstone Street (EW) *
17. Amelia Avenue-Pearlanna (NS)/Gladstone Street (EW) *
18. Lone Hill Avenue (NS)/Arrow Highway (EW) *
19. Arrow Highway (EW)/SR-57 Southbound Off-Ramp (NS) *
20. Arrow Highway (EW)/North Village Court (NS) *
21. Arrow Highway (EW)/Bonita Avenue/SR-57 Northbound Ramps (NS) *

The analysis of peak hour intersection Level of Service (LOS) is the primary indicator of circulation system performance. The level of service during the peak hour at intersections ranges from LOS A (optimal conditions, little congestion) to LOS F (stop-and-go traffic, very heavy congestion). Traffic operating conditions at intersections near the proposed project site were analyzed using the Intersection Capacity Utilization (ICU) method. The ICU method for evaluating signalized intersection involves the computation of volume-to-capacity (V/C) ratios for each critical movement. Capacity, or saturation flow rate, is defined as the maximum rate of flow that can pass through a given intersection approach under prevailing traffic and roadway conditions. The sum of all critical movement V/C ratios, plus an efficiency lost factor of 0.1 to account for the effect of change intervals, is used to determine the total intersection capacity utilization and corresponding level of service from Table 3L-1.

Criteria for Determining Significant Impacts

Significant impacts for the proposed project were determined by comparing V/C for traffic conditions for the year 2005 with cumulative projects and the proposed project to traffic conditions for the year 2005 with cumulative projects only. The County of Los Angeles Traffic Impact Analysis Report Guidelines define the following project-related increases in v/c (or ICU value) at a signalized intersection as significant:

Pre-Project LOS & v/c	Project Related v/c increase
C: 0.71– 0.80	Equal to or greater than 0.04
D: 0.81 – 0.90	Equal to or greater than 0.02
E: 0.91 or more	Equal to or greater than 0.01

As an example of how this methodology is applied, if an intersection operates at LOS A in a pre-project scenario and worsens to LOS C in a post-project scenario, there would be no significant impact. The impact threshold utilized is based on the *pre-project* LOS, not post-project LOS.

The County of Los Angeles does not define significant impact standards for unsignalized intersections. At these locations, peak-hour traffic signal warrant analyses were conducted for this study, for pre-project and post-project conditions. The peak-hour signal warrant analyses conducted for the unsignalized study intersections examined intersection approach and total turn movement volumes. The warrant analyses determined if traffic signal installation would be justified based on these volumes. These warrants were originally developed by Caltrans, and are now part of the Manual of Uniform Traffic Control Devices (MUTCD). If such warrants are not met, municipalities generally do not install traffic signals at the analyzed location. Beyond the significant impact analysis utilized in the traffic report for this project, signal warrant analyses are provided for all unsignalized study intersections. Impacts at unsignalized intersections were determined to be significant where 1) project traffic would result in LOS degradation from "E" or better to "F" or within LOS "F", and/or 2) project traffic would contribute to conditions under which traffic signal warrant analyses would be met.

Study Hours of Analysis

In order to capture the peak hours during the peak periods, traffic counts were performed for the following times at the study intersections:

Weekday	AM Period	7 AM to 9AM
	PM Period	4 PM to 6 PM
Saturday	Mid-Day	12 PM to 2 PM (9 selected intersections)

Project Impacts

Impact 3L1: The proposed project would impact local intersections and exceed significance criteria established by the City of San Dimas at nine intersections.

The project site is located in a developed area of the City of San Dimas just south of the border of Glendora. To evaluate the potential impact of the proposed project on local traffic conditions, existing traffic volumes in the study area were first assessed without consideration of the proposed project. This provides a basis against which to measure the proposed project traffic impacts.

There are currently ~~four~~ three intersections in the project study area that operate at LOS E or worse during the weekday PM peak period, as shown in Table 3L-2. Level of service D is generally considered to be the lowest acceptable LOS in an urban or suburban area. ~~None~~ One of the study intersections operates at LOS E or worse during the weekday AM peak period. ~~-~~No study intersections operate at LOS E or worse during ~~or~~ the Saturday mid-day peak period.

Signalized Intersections

Future (Year 2005) Growth-Only Traffic Conditions

Completion of the proposed project is anticipated for the year 2005. To calculate base traffic conditions for 2005, existing peak hour conditions were increased by a factor of 1.01. This represents a 1% annual rate of growth for one year. Table 3L-3 provides the V/C ratios or delay and LOS values for each study intersection for future (2005) ambient growth conditions. Figures 3L-6 and 3L-7 provide 2005 weekday ambient AM and PM peak hour traffic volumes, respectively. Figure 3L-8 provides 2005 ambient Saturday mid-day peak hour traffic volumes.

TABLE 3L-3: YEAR 2005 AMBIENT GROWTH TRAFFIC CONDITIONS

	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak**	
Intersection Location	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Lone Hill Ave./Route 66	~~0.700~~ 0.800	~~C~~D	~~0.766~~ 0.866	~~C~~D	-	-
2. Amelia Ave./Route 66	~~0.459~~ 0.559	A	~~0.494~~ 0.594	A	-	-
3. Lone Hill Ave./Kenoma St. *	32.1 sec.	D	>100 sec.	F	-	-
4. Lone Hill Ave./Petunia St.	~~0.470~~ 0.570	A	~~0.499~~ 0.599	A	-	-
5. Lone Hill Ave./I-210 Wb ramps	~~0.882~~ 0.982	~~D~~E	~~1.270~~ 1.370	F	-	-
6. Lone Hill Ave./I-210 Eb ramps	~~0.614~~ 0.714	~~B~~C	~~0.732~~ 0.832	~~C~~D	-	-
7. Lone Hill Ave./Auto Centre Dr.	~~0.495~~ 0.595	A	~~0.777~~ 0.877	~~C~~D	~~0.663~~ 0.763	~~B~~C
8. Walmart Dwy./Auto Centre Dr.	~~0.314~~ 0.414	A	~~0.456~~ 0.556	A	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	~~0.395~~ 0.495	A	~~0.576~~ 0.676	~~A~~B	-	-
10. Amelia Ave./Auto Centre Dr.-Allen	~~0.352~~ 0.452	A	~~0.378~~ 0.478	A	-	-
11. Lone Hill Ave./Gl. Marketplace Dwy.	~~0.274~~ 0.374	A	~~0.412~~ 0.512	A	~~0.489~~ 0.589	~~B~~A
12. Sunflower St./Gladstone St.	~~0.396~~ 0.496	A	~~0.412~~ 0.512	~~B~~A	-	-
13. Willow St./Gladstone St. *	10.1 sec.	B	11.5 sec.	B	-	-
14. Valley Center Ave./Gladstone St. *	10.5 sec.	B	13.6 sec.	B	-	-
15. Shellman Ave. /Gladstone St. *	11.1 sec.	B	12.3 sec.	A	11.1 sec.	B
16. Lone Hill Ave./Gladstone St.	~~0.381~~ 0.481	A	~~0.519~~ 0.619	~~A~~B	~~0.764~~ 0.864	~~C~~D
17. Amelia Ave.-Pearlanna/Gladstone St.	~~0.352~~ 0.452	A	~~0.431~~ 0.531	A	~~0.293~~ 0.393	A
18. Lone Hill Ave./Arrow Hwy.	~~0.501~~ 0.601	~~A~~B	~~0.568~~ 0.668	~~A~~B	~~0.508~~ 0.608	~~A~~B
19. Arrow Hwy./Sb SR-57 Off-Ramp	~~0.499~~ 0.599	A	~~0.597~~ 0.697	~~A~~B	~~0.703~~ 0.803	~~C~~D
20. Arrow Hwy./North Village Ct.	~~0.372~~ 0.472	A	~~0.481~~ 0.581	A	~~0.601~~ 0.701	~~B~~C
21. Arrow Hwy./Bonita Ave.	~~0.724~~ 0.824	~~C~~D	~~0.948~~ 1.048	~~E~~F	~~0.721~~ 0.821	~~C~~D

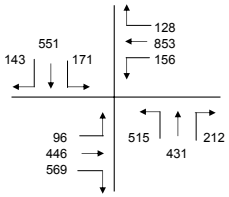
** Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

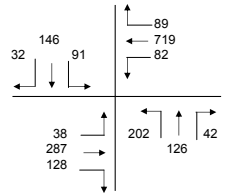
Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004.~~December 2004.

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

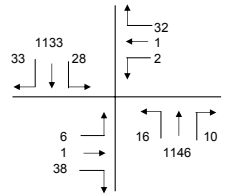
Intersection 1
N/S Lone Hill Ave.
E/W Route 66



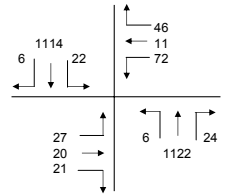
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.



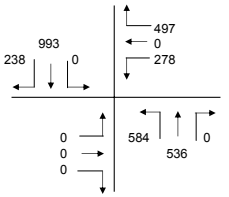
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



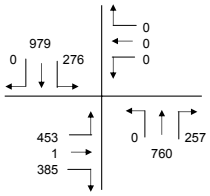
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



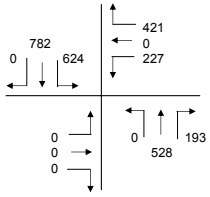
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



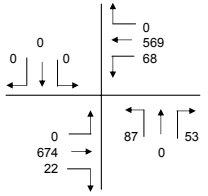
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



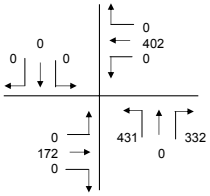
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



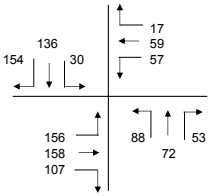
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



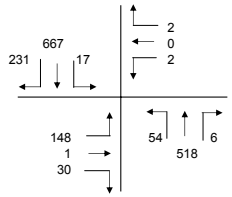
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



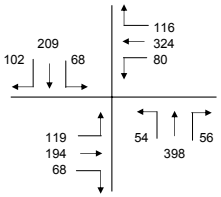
Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



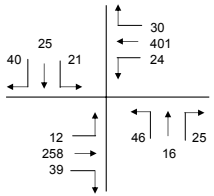
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



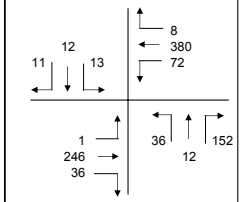
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



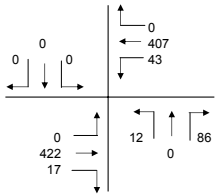
Intersection 13
N/S Willow St.
E/W Gladstone St.



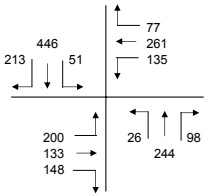
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



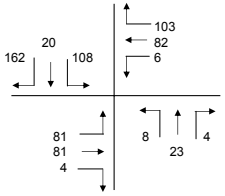
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



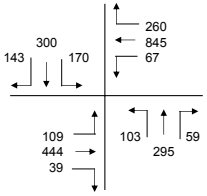
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



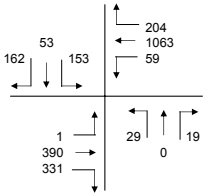
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



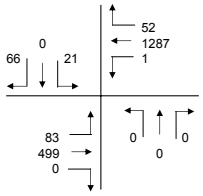
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



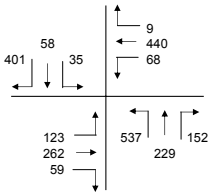
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.

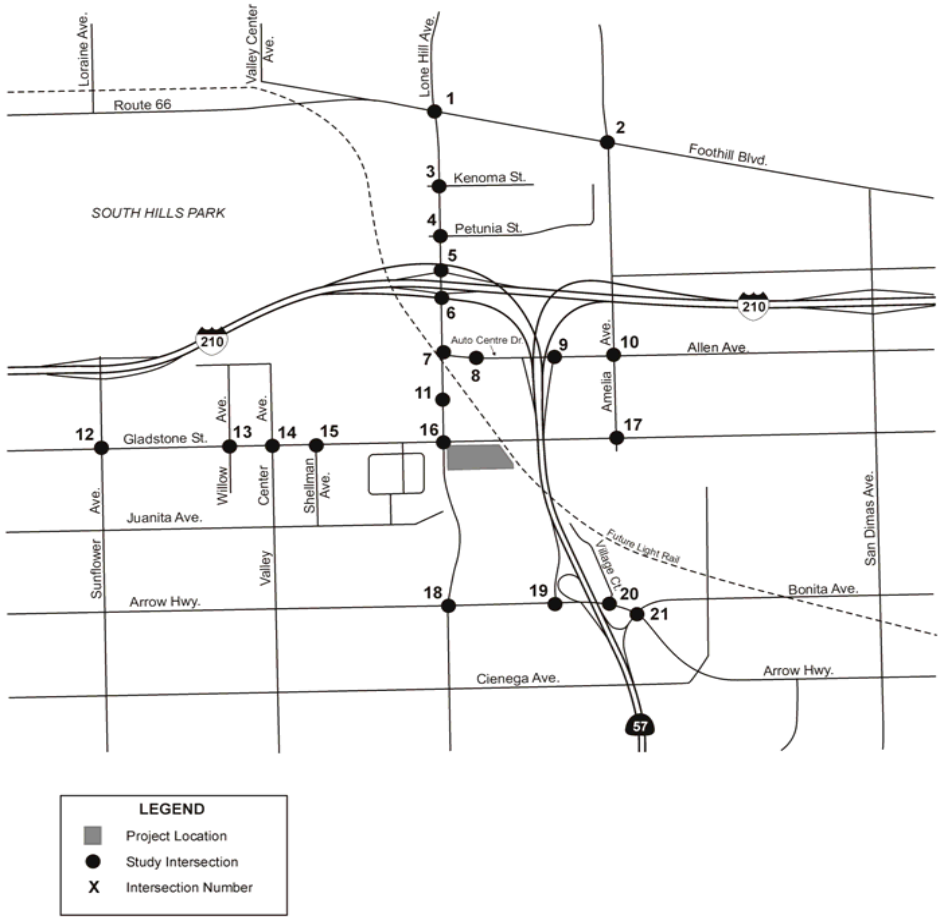


Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





N

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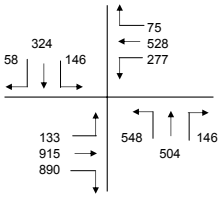
Figure 3L-6

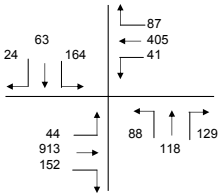
Future (Year 2005) Weekday Ambient AM Peak Hour Traffic Volumes

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

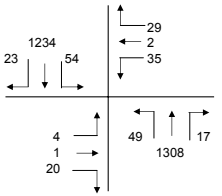
Intersection 1
N/S Lone Hill Ave.
E/W Route 66



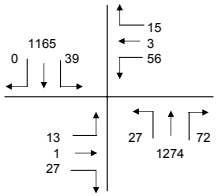
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.



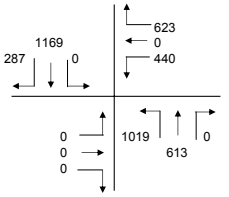
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



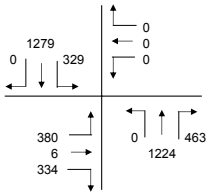
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



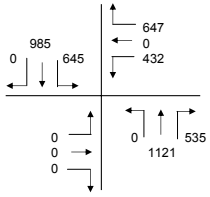
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



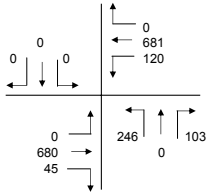
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



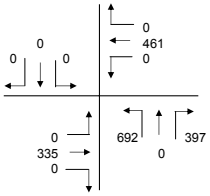
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



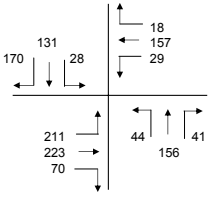
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



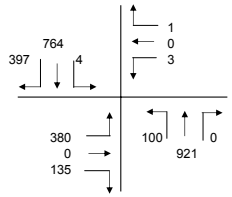
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



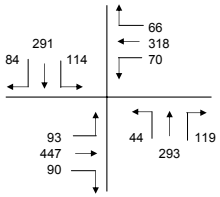
Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



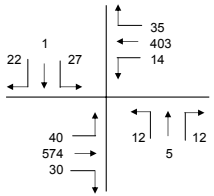
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



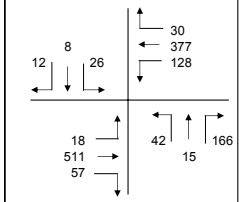
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



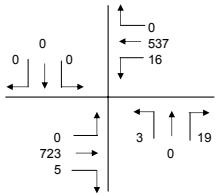
Intersection 13
N/S Willow St.
E/W Gladstone St.



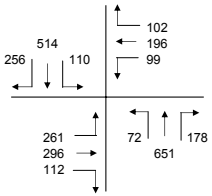
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



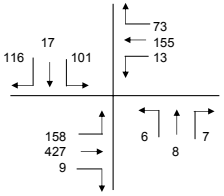
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



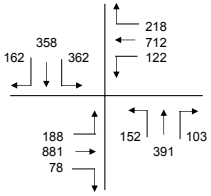
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



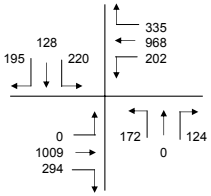
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



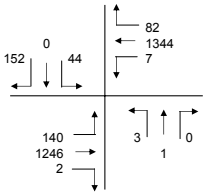
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



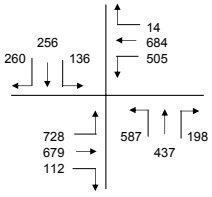
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.

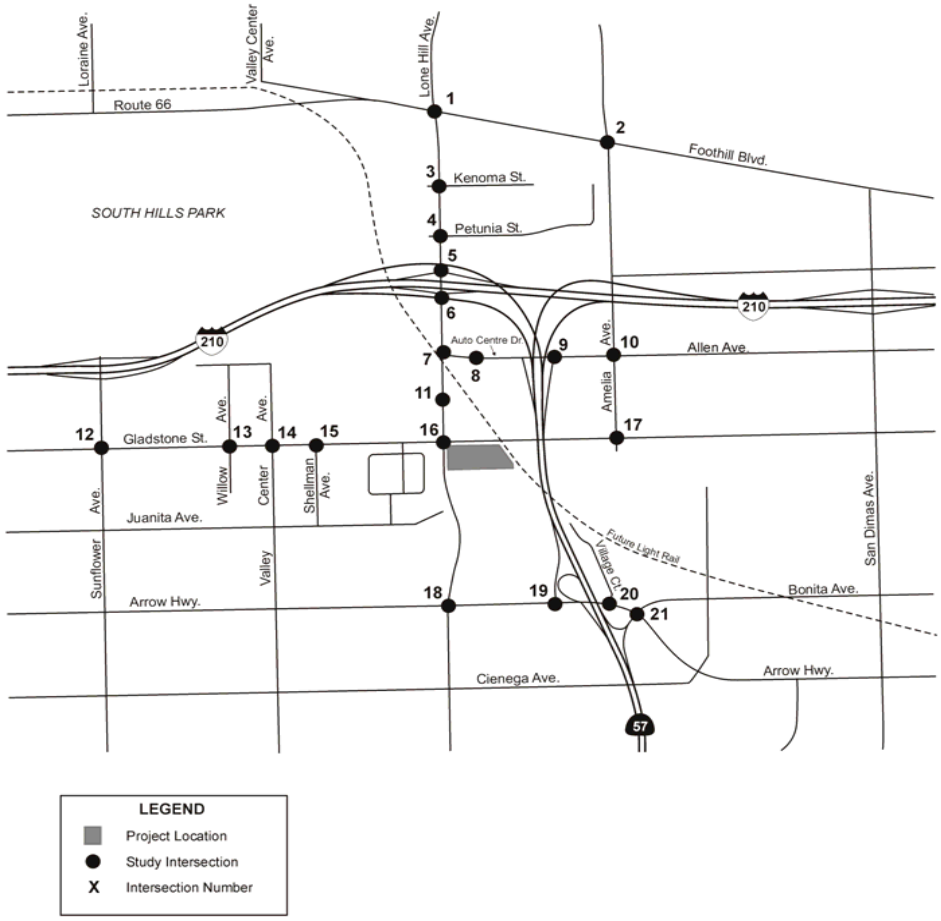


Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





N

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Figure 3L-7

Future (Year 2005) Weekday Ambient PM Peak Hour Traffic Volumes

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

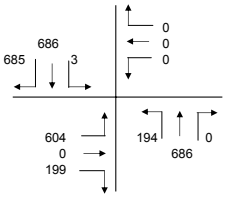
Intersection 1
N/S Lone Hill Ave.
E/W Route 66

Not Analyzed for Saturday

Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps

Not Analyzed for Saturday

Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



Intersection 12
N/S Sunflower St.
E/W Gladstone St.

Not Analyzed for Saturday

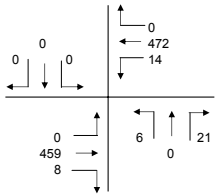
Intersection 13
N/S Willow St.
E/W Gladstone St.

Not Analyzed for Saturday

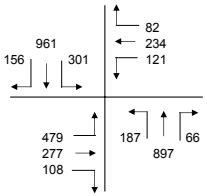
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.

Not Analyzed for Saturday

Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



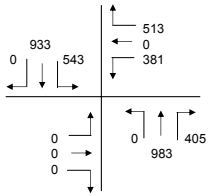
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



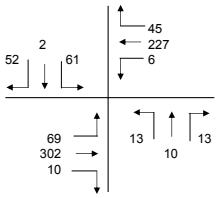
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.

Not Analyzed for Saturday

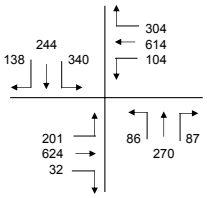
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



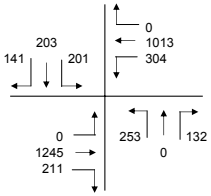
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.

Not Analyzed for Saturday

Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



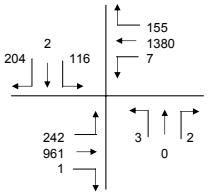
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.

Not Analyzed for Saturday

Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



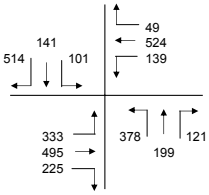
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps

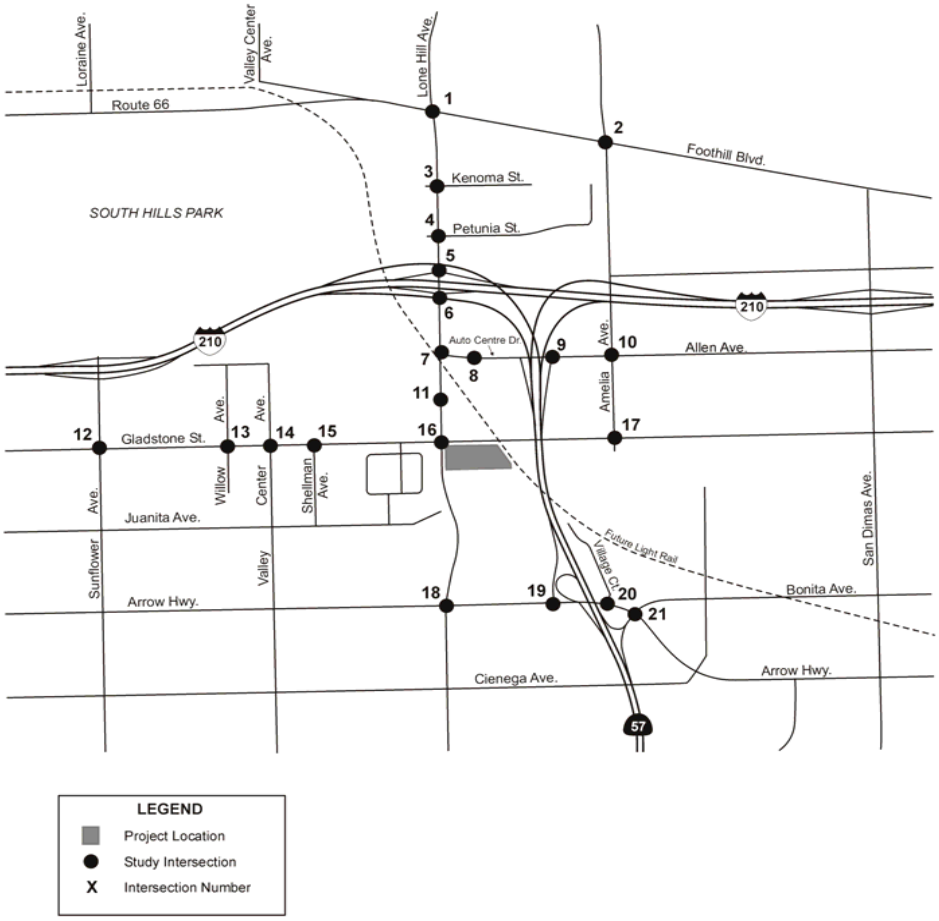
Not Analyzed for Saturday

Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.

Not Analyzed for Saturday

Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





N

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Figure 3L-8

Future (Year 2005) Saturday Ambient Peak Hour Traffic Volumes

Proposed Project Only Traffic Conditions

Based on trip generation rates provided in *Trip Generation, 7th* Edition, published by the Institute of Transportation Engineers (ITE), ~~*Trip Generation Manual, 6th* Edition~~, and pass-by trip and internal trip capture reductions also defined by ITE, revised trip generation totals were calculated. Based on this methodology, the proposed development is projected to generate a net total of ~~12,123~~7,692 trips per day with ~~362~~ 242 weekday AM peak trips, ~~and 853~~ 608 weekday PM peak trips, and ~~.~~ 844 Saturday mid-day peak trips. Appendix A provides a summary of the methodology utilized to compute Project trip generation totals under Revision II.

Trip distribution represents the directional orientation of traffic to and from the proposed project site. Trip distribution is influenced by the geographical location of the site, the location of employment, commercial, residential, and recreational facilities; and the proximity of the regional freeway system. The directional orientation of area traffic was determined by evaluating the existing and proposed land uses within the community and existing traffic volumes. Trip distribution for the traffic study was based upon near-term conditions which considered those highway facilities that were in place at the time the study was conducted. The patterns for the proposed project area on major roadways are shown in Figure 3L-9. Figure 3L-10 shows project trip distribution percentages for intersections in the project study area. The "internal distribution area" illustrated in Figure 3L-10 represents a distribution to local destinations near the Project site, such as the WalMart or Marketplace developments or close-in residential areas. Identification of this internal distribution area provides greater understanding of trip generation and distribution. In such an area people may be expected to visit multiple locations while running errands, for example. The assignment of traffic from the proposed project site to the adjoining roadway system was based on the proposed project site's trip generation, trip distributions, and existing arterial highway and local street systems. The same distribution was utilized for the a.m. as for the p.m. peak period and Saturday mid-day peak period, as the Costco gas station would be operational in the a.m. peak period and many users in the morning would likely be commuters. Therefore, trip attraction to and from the freeway would be roughly the same in either period. Based on identified project trip generation and distribution, the weekday AM and PM peak hour project trips are depicted in Figures 3L-11 and 3L-12, respectively. Figure 3L-13 depicts Saturday mid-day peak hour project trips.

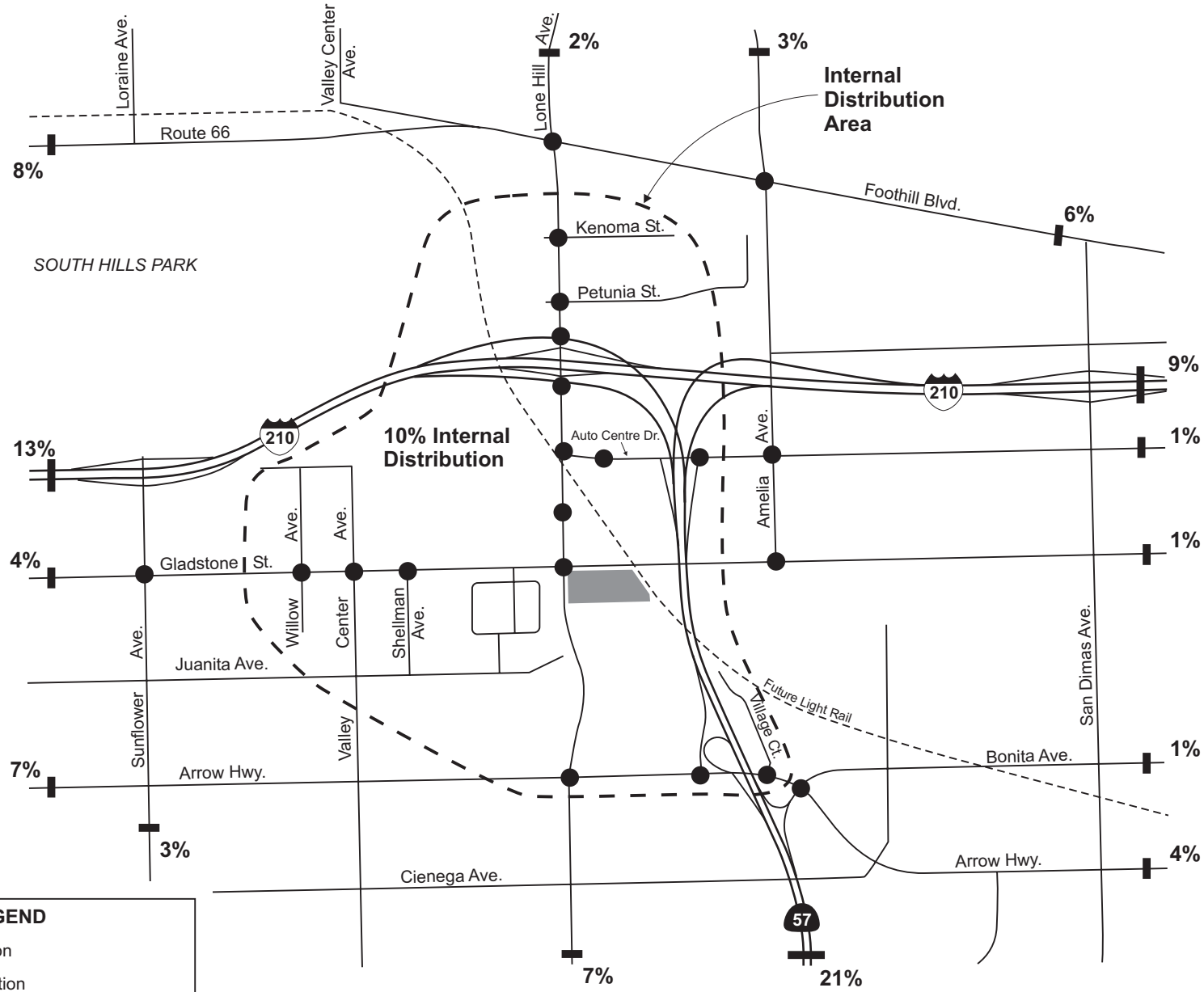
Year 2005 With Proposed Project Traffic Conditions

In order to assess the impact of the proposed project on ambient conditions in 2005, proposed project traffic only volumes were combined with projected Year 2005 ambient traffic volumes. Table 3L-4 provides the V/C ratios or delay and LOS values for this scenario. LOS would be worsened by project traffic at ~~one~~ two study intersections in the weekday AM peak period, ~~five~~ six intersections in the weekday PM period, and ~~three~~ four intersections in the Saturday mid-day period. In two occurrences—at ~~Lone Hill Avenue/I-210 westbound ramp~~Lone Hill Avenue/Auto Centre Drive ~~-~~and Lone Hill Avenue/Gladstone Street—decline involves LOS values of E or F. Peak hour traffic volumes for this scenario are provided in Figures 3L-14 through 3L-16.

Year 2005 With Cumulative Development Traffic Conditions

Approved and pending projects within a two-mile radius of the project site were considered for the cumulative analysis. The size of this radius is beyond the 1.5 mile radius required in the Los Angeles County traffic study guidelines. Based on information from the City of San Dimas and the City of Glendora, a total of 24 cumulative projects will contribute measurable traffic volumes to the study area within the year 2005 timeframe. A list of these cumulative projects is shown in Table 3L-5. Trip generation totals for these projects were taken from information from recent traffic studies provided by the City of San Dimas or the City of Glendora. If this information was not available, ITE trip generation rates were utilized for weekday or Saturday trip generation based on the planned intensity of each project.

Trip generation rates utilized for the analysis of cumulative projects were not updated to those in the 7th Edition of ITE's *Trip Generation*. A separate analysis was conducted that utilized 7th Edition rates (versus the 6th Edition rates utilized in the cumulative projects analysis), which concluded that the overall volumes generated by the related projects would be lower than the same analysis utilizing 6th Edition rates. Therefore, use of the 6th Edition rates provides a more conservative analysis for this portion of the traffic study.



LEGEND

- Project Location
- Study Intersection
- **X%** Trip Distribution Percentage

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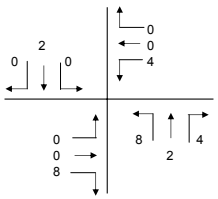
Figure 3L-9

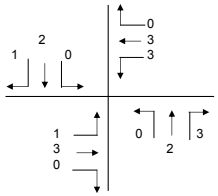
Overall Project Trip Distribution

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

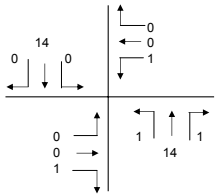
Intersection 1
N/S Lone Hill Ave.
E/W Route 66



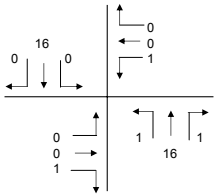
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.



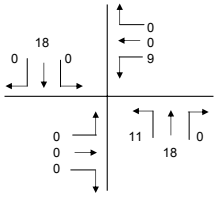
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



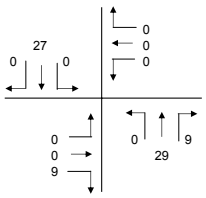
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



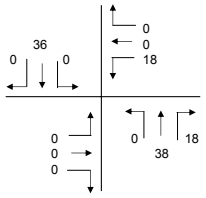
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



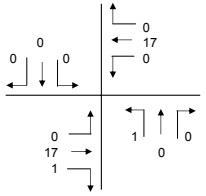
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



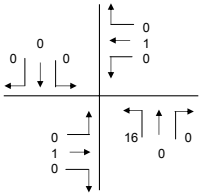
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



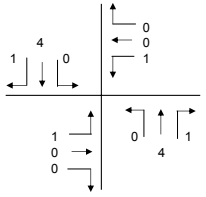
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



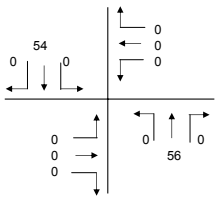
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



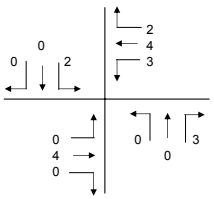
Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



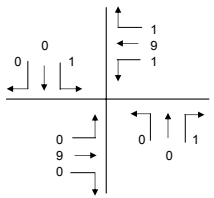
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



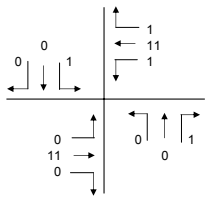
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



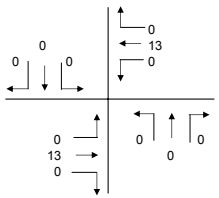
Intersection 13
N/S Willow St.
E/W Gladstone St.



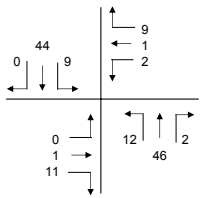
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



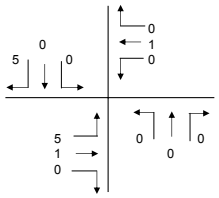
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



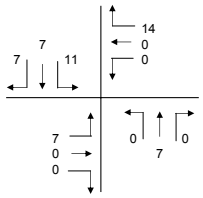
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



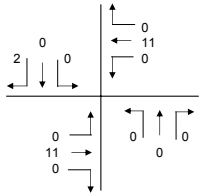
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



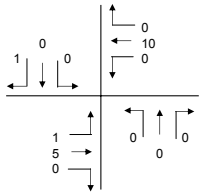
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



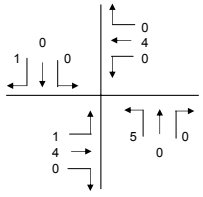
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



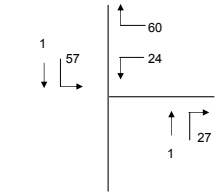
Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



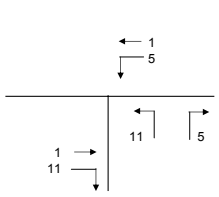
Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.

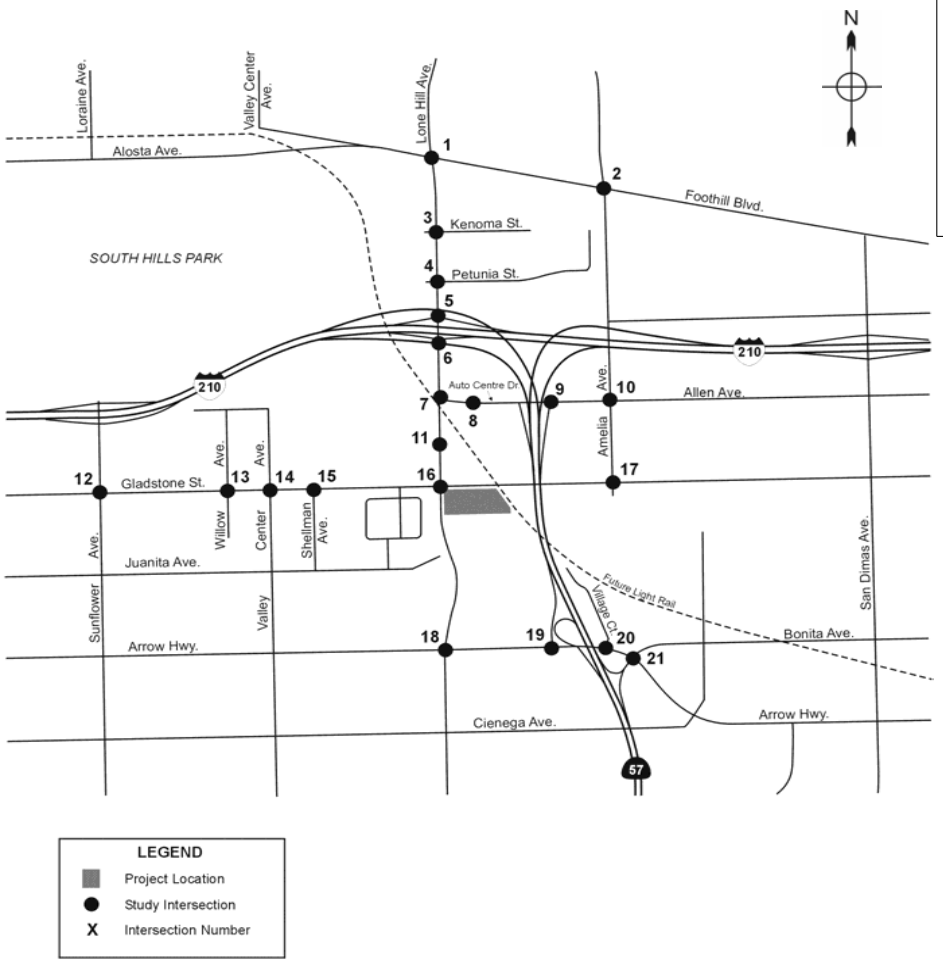


Intersection 22 **PROJECT DRIVEWAY**
N/S Lone Hill Ave.
E/W Project Dwy.



Intersection 23 **PROJECT DRIVEWAY**
N/S Project Dwy.
E/W Gladstone St.





NOTE: All turning movement numbers shown represent trip distribution percentages

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Traffic Engineers and Transportation Planners

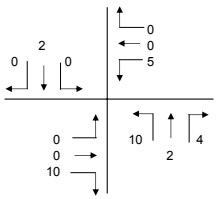
Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-10

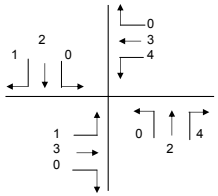
Project Trip Distribution Percentages

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

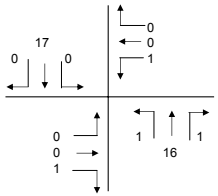
Intersection 1
N/S Lone Hill Ave.
E/W Foothill Blvd. (Rte 66)



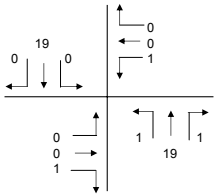
Intersection 2
N/S Amelia Ave.
E/W Foothill Blvd. (Rte 66)



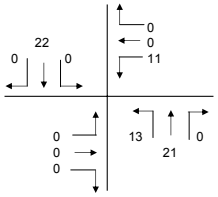
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



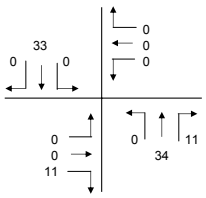
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



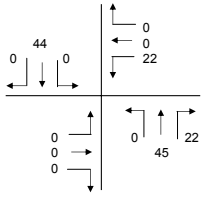
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



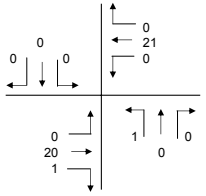
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



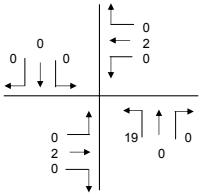
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



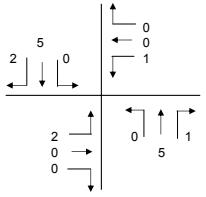
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



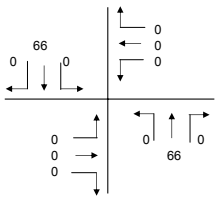
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



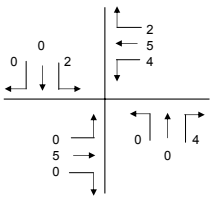
Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



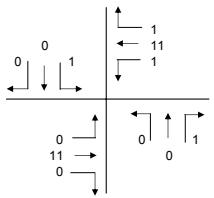
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



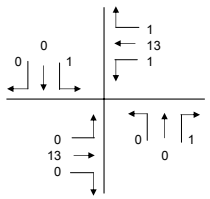
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



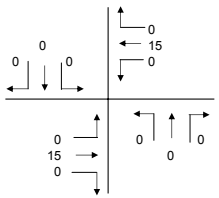
Intersection 13
N/S Willow St.
E/W Gladstone St.



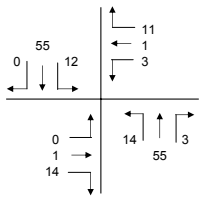
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



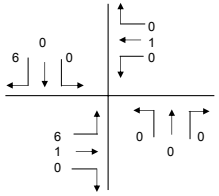
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



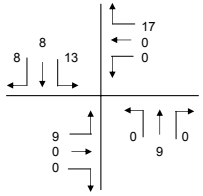
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



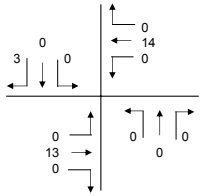
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



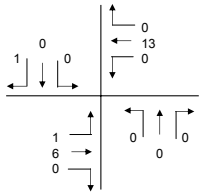
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



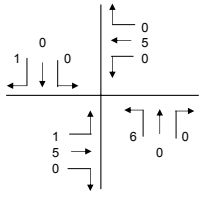
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.



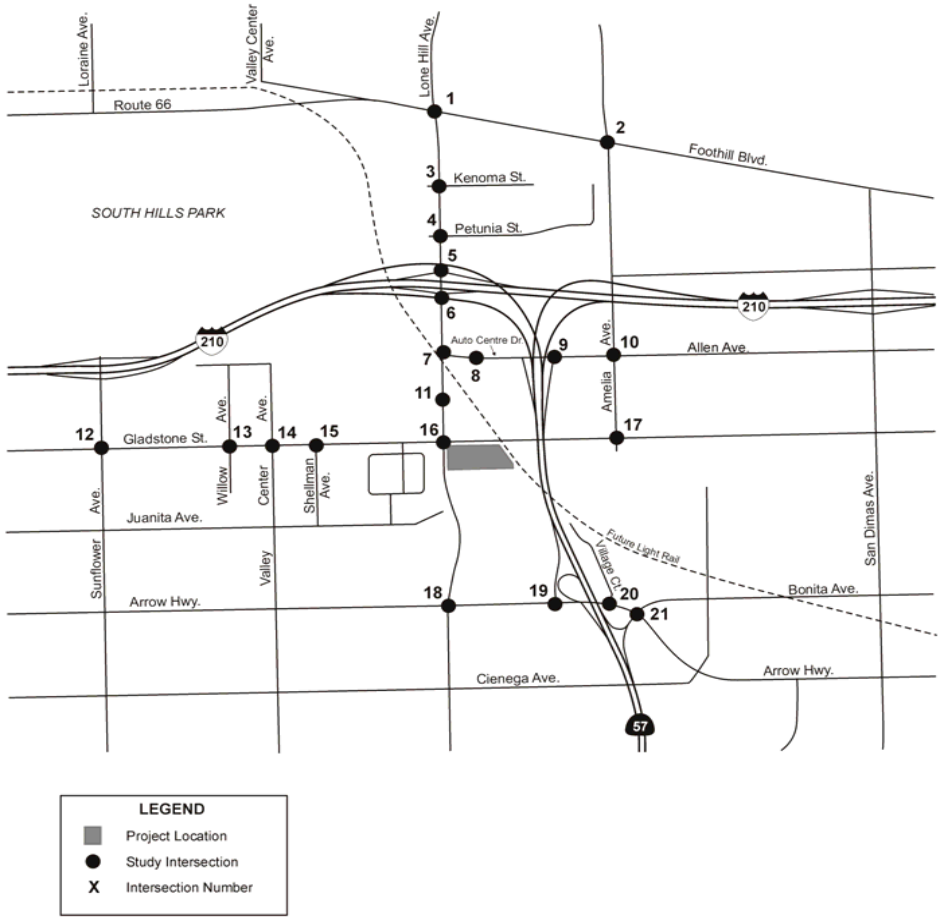


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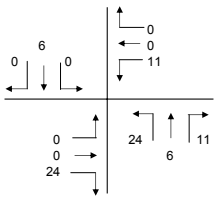
Figure 3L-11

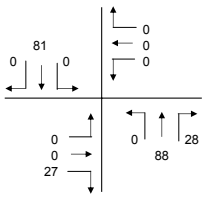
Weekday AM Peak Hour Project Trips

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

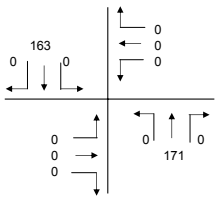
Intersection 1
N/S Lone Hill Ave.
E/W Foothill Blvd. (Rte 66)



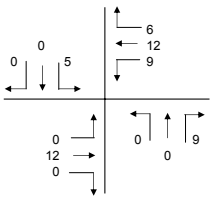
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



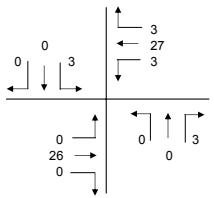
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



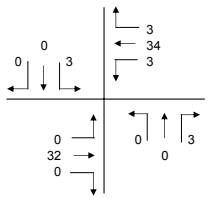
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



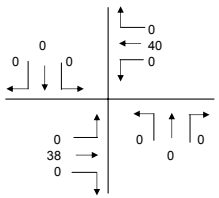
Intersection 13
N/S Willow St.
E/W Gladstone St.



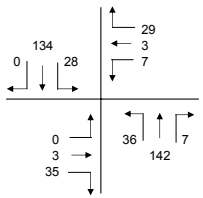
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



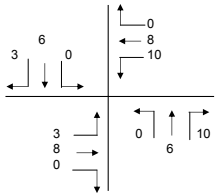
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



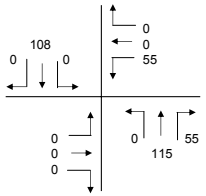
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



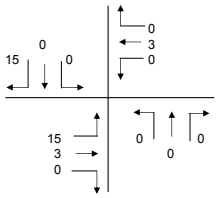
Intersection 2
N/S Amelia Ave.
E/W Foothill Blvd. (Rte 66)



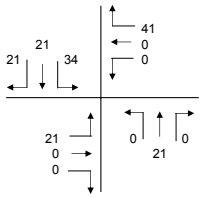
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



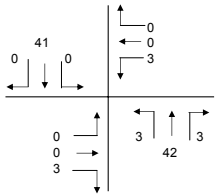
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



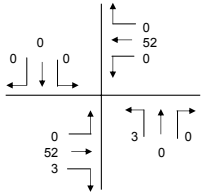
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



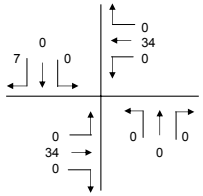
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



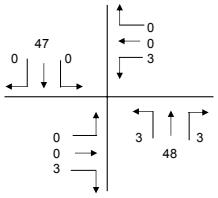
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



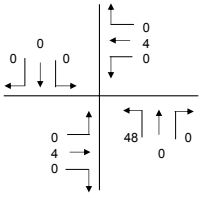
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



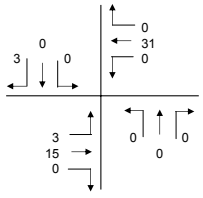
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



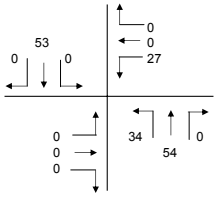
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



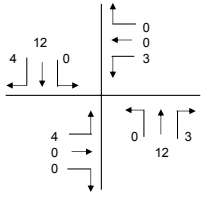
Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



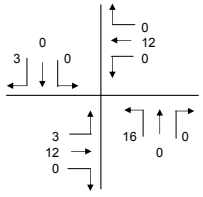
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps

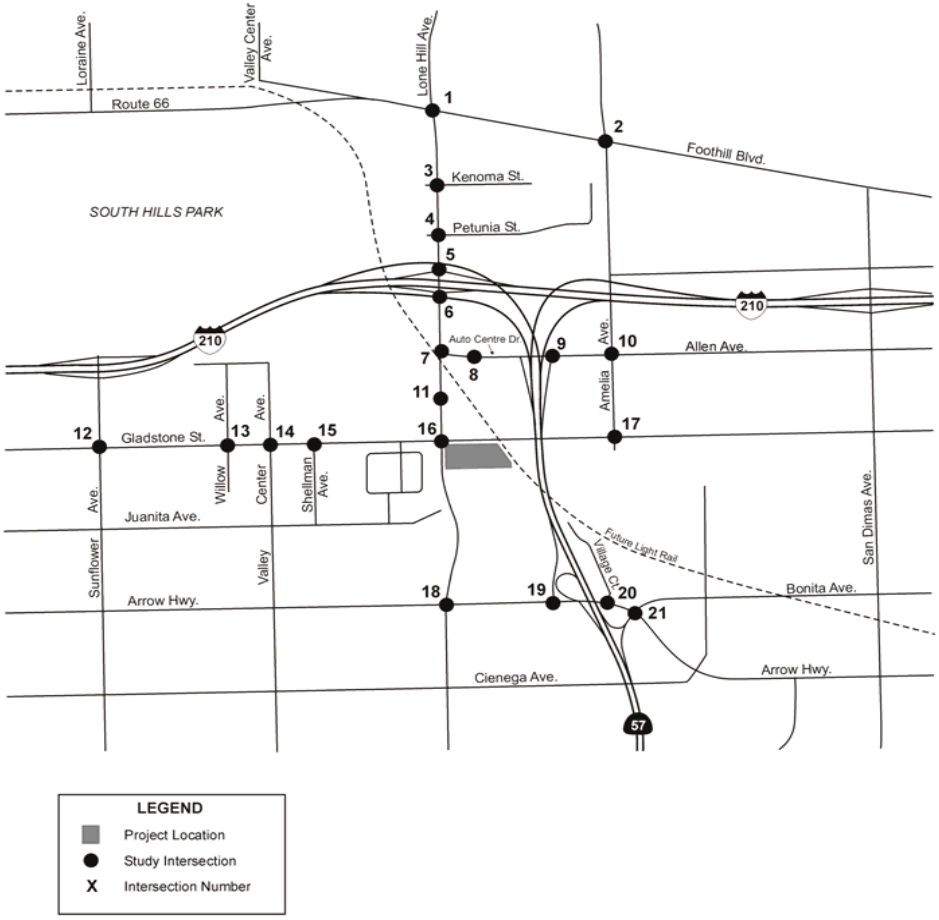


Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





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Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-12

Weekday PM Peak Hour Project Trips

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

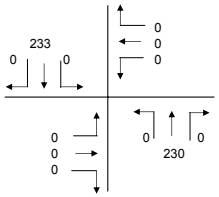
Intersection 1
N/S Lone Hill Ave.
E/W Foothill Blvd. (Rte 66)

Not Analyzed for Saturday

Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps

Not Analyzed for Saturday

Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



Intersection 12
N/S Sunflower St.
E/W Gladstone St.

Not Analyzed for Saturday

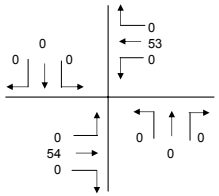
Intersection 13
N/S Willow St.
E/W Gladstone St.

Not Analyzed for Saturday

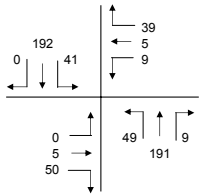
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.

Not Analyzed for Saturday

Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



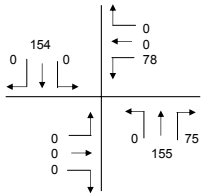
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.

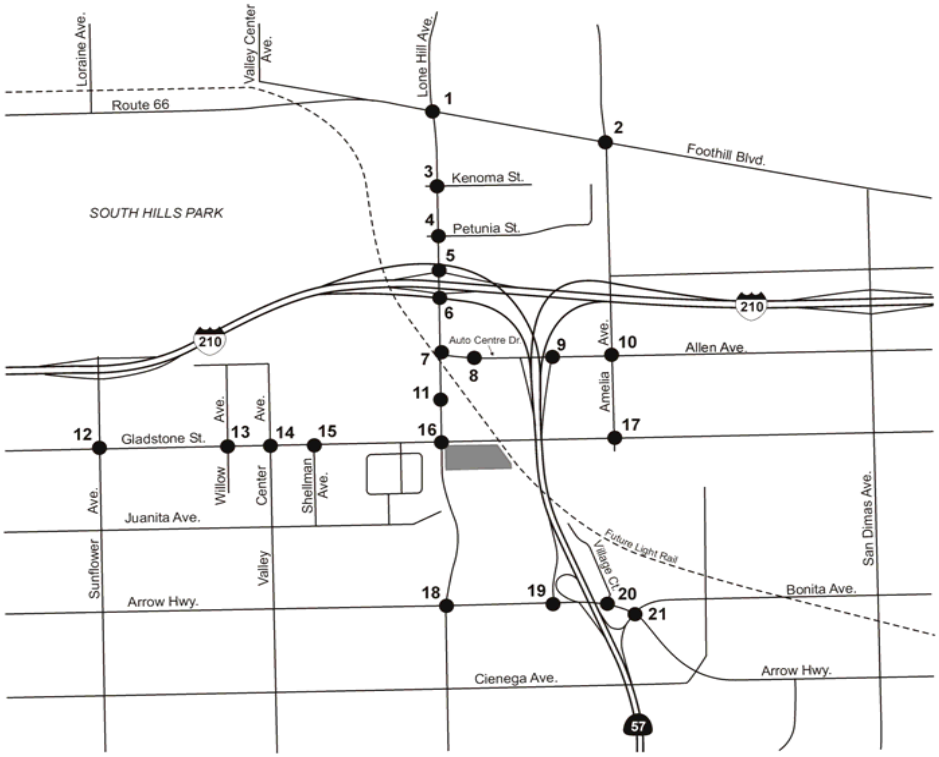


Intersection 2
N/S Amelia Ave.
E/W Foothill Blvd. (Rte 66)

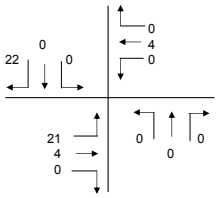
Not Analyzed for Saturday

Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.

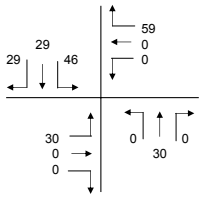




Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



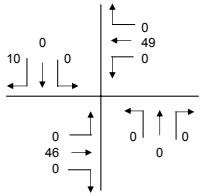
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.

Not Analyzed for Saturday

Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



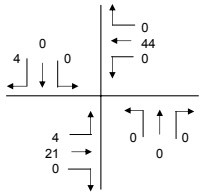
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.

Not Analyzed for Saturday

Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



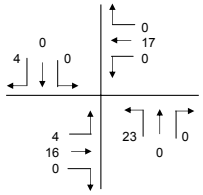
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps

Not Analyzed for Saturday

Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.

Not Analyzed for Saturday

Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.



N

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Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-13

Saturday Peak Hour Project Trips

TABLE 3L-4: YEAR 2005 WITH PROPOSED PROJECT ONLY

	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak**	
Intersection Location	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Lone Hill Ave./Route 66-Foothill Blvd.	~~0.705~~ 0.804	~~C~~D	~~0.789~~ 0.882	~~C~~D	-	-
2. Amelia Ave./Foothill Blvd.	~~0.464~~ 0.561	A	~~0.515~~ 0.609	~~A~~B	-	-
3. Lone Hill Ave./Kenoma St. *	33.3~~9~~ sec.	D	>100 sec.	F	-	-
4. Lone Hill Ave./Petunia St.	~~0.479~~ 0.577	A	~~0.533~~ 0.625	~~A~~B	-	-
5. Lone Hill Ave./I-210 Wb ramps	~~0.901~~ 0.995	E	~~1.315~~ 1.402	F	-	-
6. Lone Hill Ave./I-210 Eb ramps	~~0.623~~ 0.721	~~B~~C	~~0.756~~ 0.850	~~C~~D	-	-
7. Lone Hill Ave./Auto Centre Dr.	~~0.521~~ 0.614	~~A~~B	~~0.843~~ 0.924	~~D~~E	~~0.777~~ 0.828	~~C~~D
8. Walmart Dwy./Auto Centre Dr.	~~0.324~~ 0.421	A	~~0.482~~ 0.575	A	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	~~0.417~~ 0.508	A	~~0.621~~ 0.708	~~B~~C	-	-
10. Amelia Ave./Auto Centre Dr.-Allen	~~0.355~~ 0.453	A	~~0.399~~ 0.494	A	-	-
11. Lone Hill Ave./Gl. Marketplace Dwy.	~~0.310~~ 0.395	A	~~0.485~~ 0.565	A	~~0.593~~ 0.636	~~A~~B
12. Sunflower St./Gladstone St.	~~0.403~~ 0.501	A	~~0.433~~ 0.527	A	-	-
13. Willow St./Gladstone St. *	10.2~~3~~ sec.	B	12.0~~2~~ sec.	B	-	-
14. Valley Center Ave./Gladstone St. *	10.7~~8~~ sec.	B	~~15.0~~14.6 sec.	B	-	-
15. Shellman Ave. /Gladstone St. *	11.2~~3~~ sec.	B	12.7~~8~~ sec.	B	11.6 ~~12.0~~ sec.	B
16. Lone Hill Ave./Gladstone St.	~~0.423~~ 0.508	A	~~0.615~~ 0.687	B	~~0.919~~ 0.953	E
17. Amelia Ave.-Pearlanna/Gladstone St.	~~0.365~~ 0.460	A	~~0.447~~ 0.542	A	~~0.344~~ 0.422	A
18. Lone Hill Ave./Arrow Hwy.	~~0.524~~ 0.615	~~A~~B	~~0.618~~ 0.703	~~B~~C	~~0.647~~ 0.686	B
19. Arrow Hwy./Sb SR-57 Off-Ramp	~~0.512~~ 0.608	~~A~~B	~~0.613~~ 0.709	~~B~~C	~~0.720~~ 0.813	~~C~~D
20. Arrow Hwy./North Village Ct.	~~0.379~~ 0.476	A	~~0.496~~ 0.592	A	~~0.626~~ 0.715	~~B~~C
21. Arrow Hwy./Bonita Ave./SR-57 Nb ramps	~~0.735~~ 0.830	~~C~~D	~~0.958~~ 1.055	~~E~~F	~~0.761~~ 0.843	~~C~~D

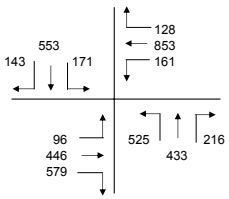
** Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

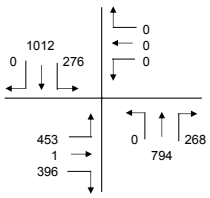
Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004.~~ December 2004.

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

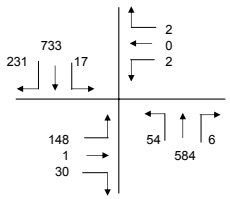
Intersection 1
N/S Lone Hill Ave.
E/W Foothill Blvd. (Rte 66)



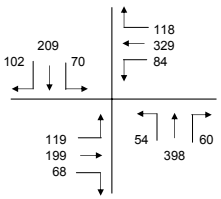
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



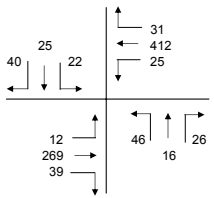
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



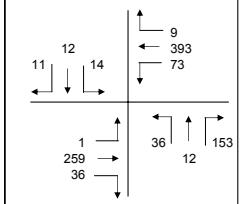
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



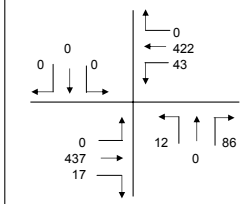
Intersection 13
N/S Willow St.
E/W Gladstone St.



Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



Intersection 16
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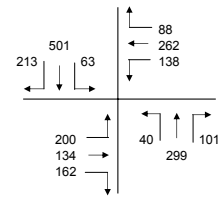
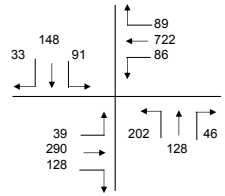
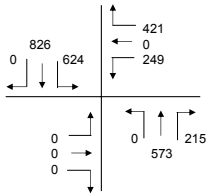
E/W Gladstone St.

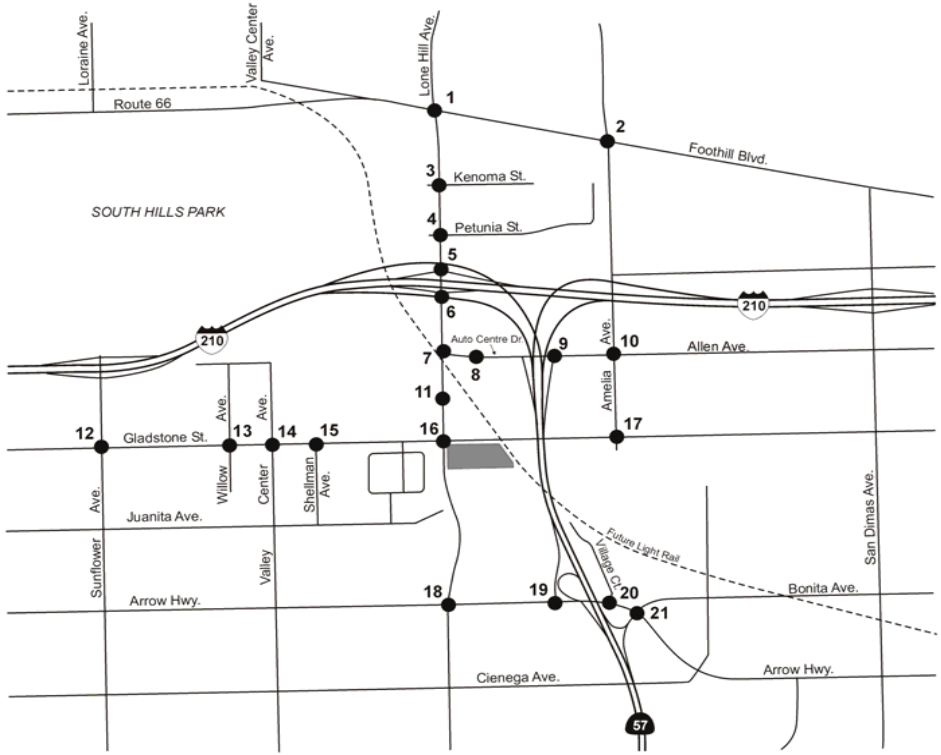


Intersection 2
N/S Amelia Ave.
E/W Foothill Blvd. (Rte 66)

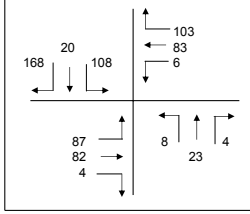


Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.

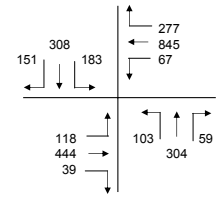




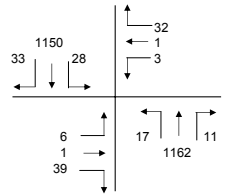
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



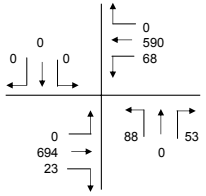
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



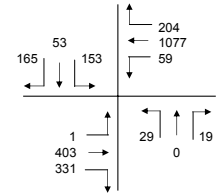
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



Intersection 4
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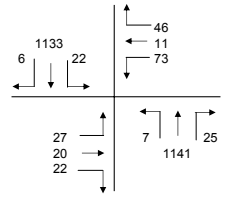
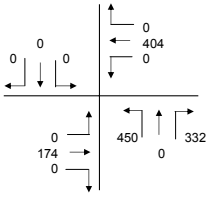
E/W Petunia St.



Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



Intersection 20
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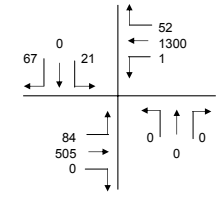
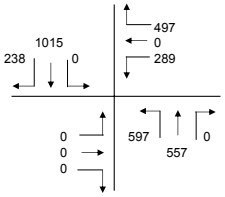
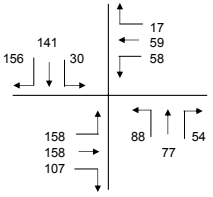
E/W Arrow Hwy.



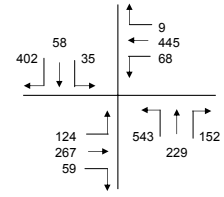
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.



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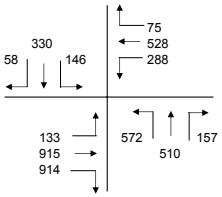
Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-14

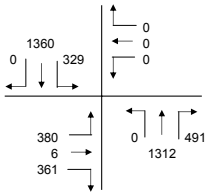
Future (Year 2005) Weekday Ambient Plus Project AM Peak Hour Traffic Volumes

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

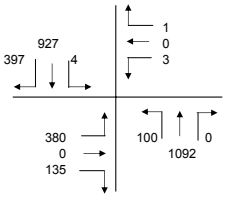
Intersection 1
N/S Lone Hill Ave.
E/W Foothill Blvd. (Rte 66)



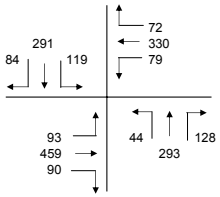
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



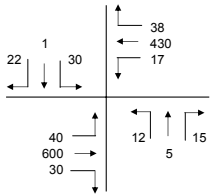
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



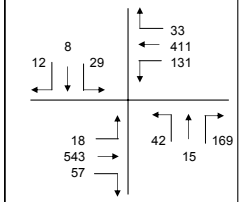
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



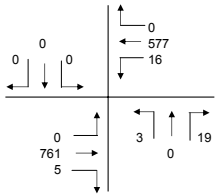
Intersection 13
N/S Willow St.
E/W Gladstone St.



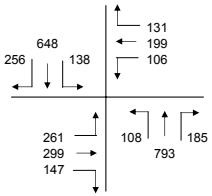
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



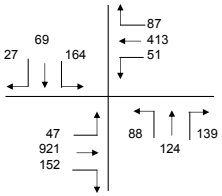
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



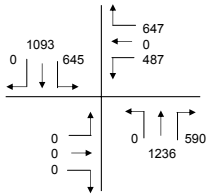
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.

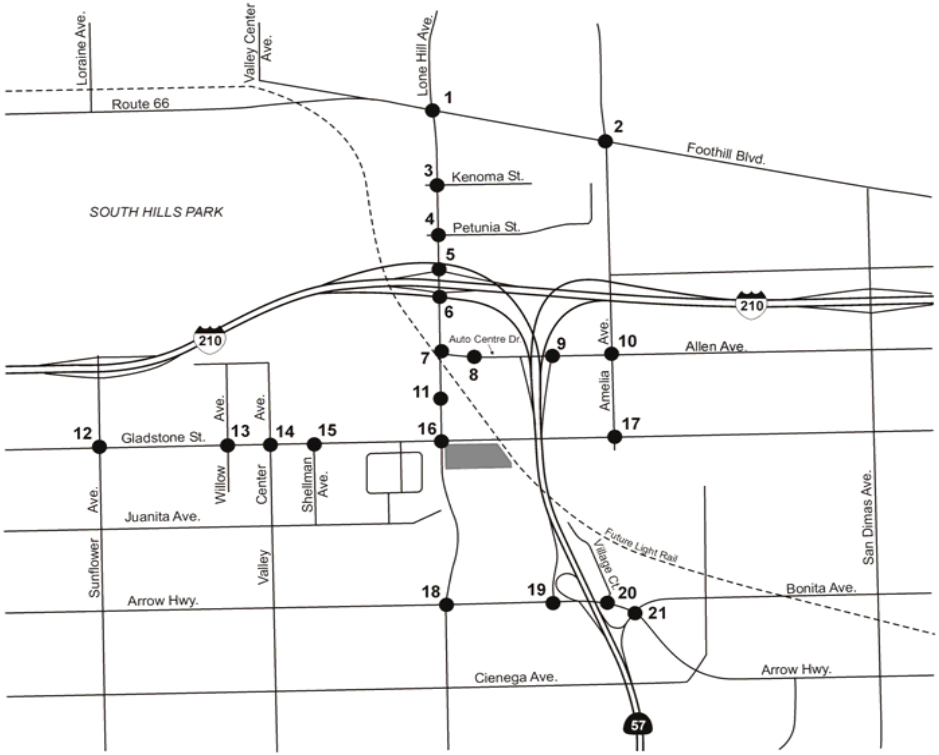


Intersection 2
N/S Amelia Ave.
E/W Foothill Blvd. (Rte 66)

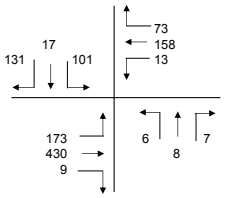


Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.

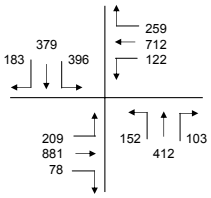




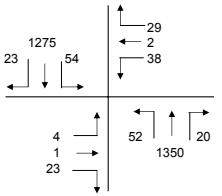
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



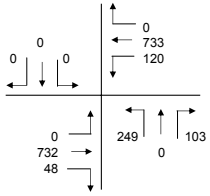
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



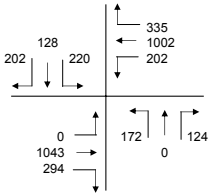
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



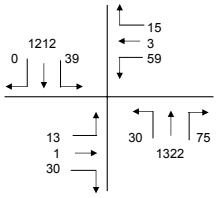
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



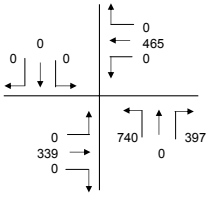
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



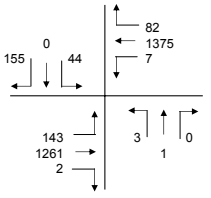
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



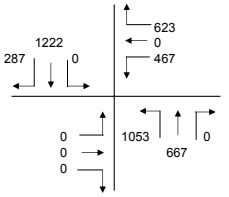
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



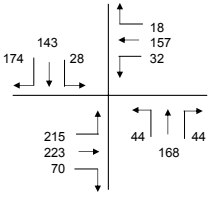
Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



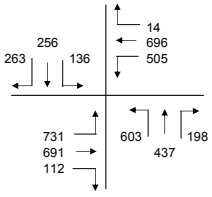
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.



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Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-15

Future (Year 2005) Weekday Ambient Plus Project PM Peak Hour Traffic Volumes

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

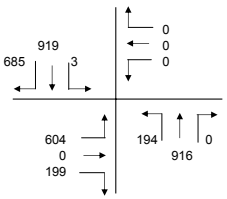
Intersection 1
N/S Lone Hill Ave.
E/W Foothill Blvd. (Rte 66)

Not Analyzed for Saturday

Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps

Not Analyzed for Saturday

Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



Intersection 12
N/S Sunflower St.
E/W Gladstone St.

Not Analyzed for Saturday

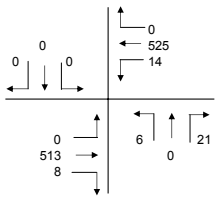
Intersection 13
N/S Willow St.
E/W Gladstone St.

Not Analyzed for Saturday

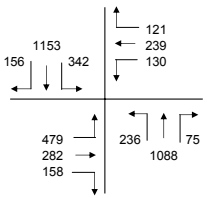
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.

Not Analyzed for Saturday

Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



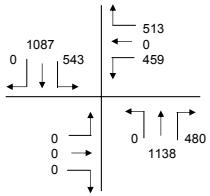
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.

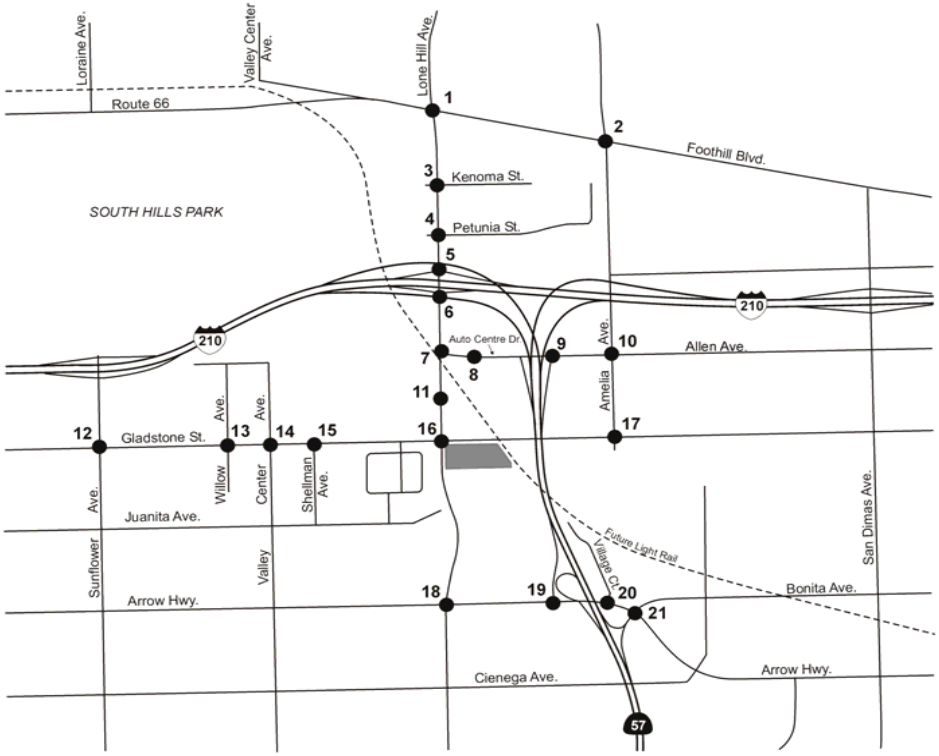


Intersection 2
N/S Amelia Ave.
E/W Foothill Blvd. (Rte 66)

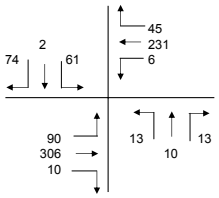
Not Analyzed for Saturday

Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.

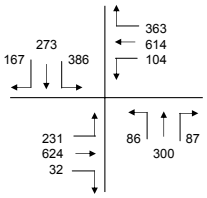




Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



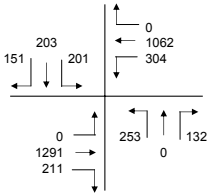
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.

Not Analyzed for Saturday

Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



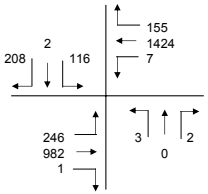
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.

Not Analyzed for Saturday

Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



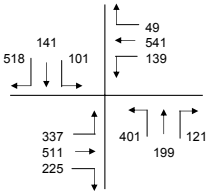
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps

Not Analyzed for Saturday

Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.

Not Analyzed for Saturday

Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.



N

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Traffic Engineers and Transportation Planners

Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-16

Future (Year 2005) Saturday Ambient Plus Project Peak Hour Traffic Volumes

The Gold Line light rail project, with stations near the downtown areas of both Glendora and San Dimas, was not included in the cumulative projects list. This project, under current projections, would not be operational until 2009, which is well after build-out of the Costco project. The eastern terminus of the line within that timeframe could be Irwindale or Claremont, depending upon the final alternative selected during the environmental review process. The project and its operations are not considered reasonably foreseeable and to identify impacts would be entirely speculative because a) light rail service may or may not be established across the Lone Hill and Gladstone crossings, depending on the light rail project alternative chosen, and b) no information currently exists concerning proposed operating frequencies. Figure 3L-17 shows the locations of cumulative projects.

Prior to assessing this scenario with the year 2005 ambient conditions, cumulative project trips alone were assessed for the peak hours. Figures 3L-18 and 3L-19 indicate weekday AM and PM peak hour cumulative project trips. Figure 3L-20 shows Saturday mid-day peak hour cumulative project trips.

Cumulative project trips were combined with data for year 2005 ambient traffic conditions to obtain data for traffic conditions for the year 2005 with cumulative projects. Table 3L-6 summarizes the LOS of the study intersections under this scenario. Bold text indicates where cumulative project traffic would worsen LOS values compared to future ambient growth conditions. The addition of traffic from cumulative projects would worsen the LOS at ~~three~~ four study intersections in the AM peak period, ~~eleven~~ 13 intersections in the weekday peak period, and ~~six~~ eight intersections in the Saturday mid-day peak period.

Peak hour traffic volumes for the year 2005 with cumulative development are shown in Figures 3L-21 through 3L-23.

Year 2005 With Cumulative Projects And Proposed Project Traffic Conditions

Table 3L-7 summarizes the intersection operations and LOS values for opening year 2005 conditions (including cumulative projects) with the proposed project. Figures 3L-24 through 3L-26 show the peak hour traffic volumes for opening year 2005 conditions with cumulative projects and the proposed project.

The analysis of significant impacts was based on significance thresholds detailed on page 3L-15. Table 3L-8 summarizes results of the traffic study scenarios and indicates intersections and hours of significant impacts. The comparison of V/C values indicates significant impacts before mitigation to traffic and circulation for two study intersections during the weekday AM peak

TABLE 3L-5: CUMULATIVE PROJECT LIST

Project	City	Address	Status	Details	Intensity	Basis	Daily Trips	AM Trips	AM In	AM Out	PM Trips	PM In	PM Out	Sat Trips	Sat In	Sat Out
1	Glendora	Tract 46684 (Gard Ranch)	Under Constr.	27 dwelling units	27.000	Units	258	20	5	15	27	17	10	25	14	12
2	Glendora	Amelia Avenue and Wildwood Ranch Road	Zoning Application	76 hillside dwelling units	76.000	Units	727	57	14	43	77	49	28	71	39	33
3	Glendora	Lone Hill, North of Foothill	Under Constr.	67 hillside dwelling units	109.000	Units	1,043	82	20	61	110	70	40	102	55	47
4	Glendora	Amelia and Foothill	Under Constr.	22 SF dwelling units	22.000	Units	211	17	4	12	22	14	8	21	11	10
5	Glendora	NE corner of Amelia & Route 66	Under Constr.	65 SF dwelling units	65.000	Units	622	49	12	37	66	42	24	61	33	28
6	Glendora	Lone Hill and Auto Centre	Pending Approval	12-purnp service station	12.000	Pump	2,023	147	75	72	175	89	86	175	89	86
7	Glendora	NW corner of Lone Hill and Gladstone	Under Constr.	40,000 sq. ft. auto dealer	40.000	KSF	1,500	88	64	24	112	45	67	119	61	58
8	San Dimas	1255 and 1256 West Arrow	Under Constr.	28,118 sq.ft. Kaiser office	28.118	KSF	1,016	68	55	14	103	28	75	102	58	44
9	San Dimas	120 East Bonita Avenue	Under Construction	13,013 sq.ft. drive-thru pharmacy	13.013	KSF	1,147	35	20	15	135	66	69	135	66	69
10	San Dimas	742 East Bonita Avenue	Under Constr.	Church, 45,600 sq.ft. expans.	45.600	KSF	415	33	18	15	30	16	14	148	110	39

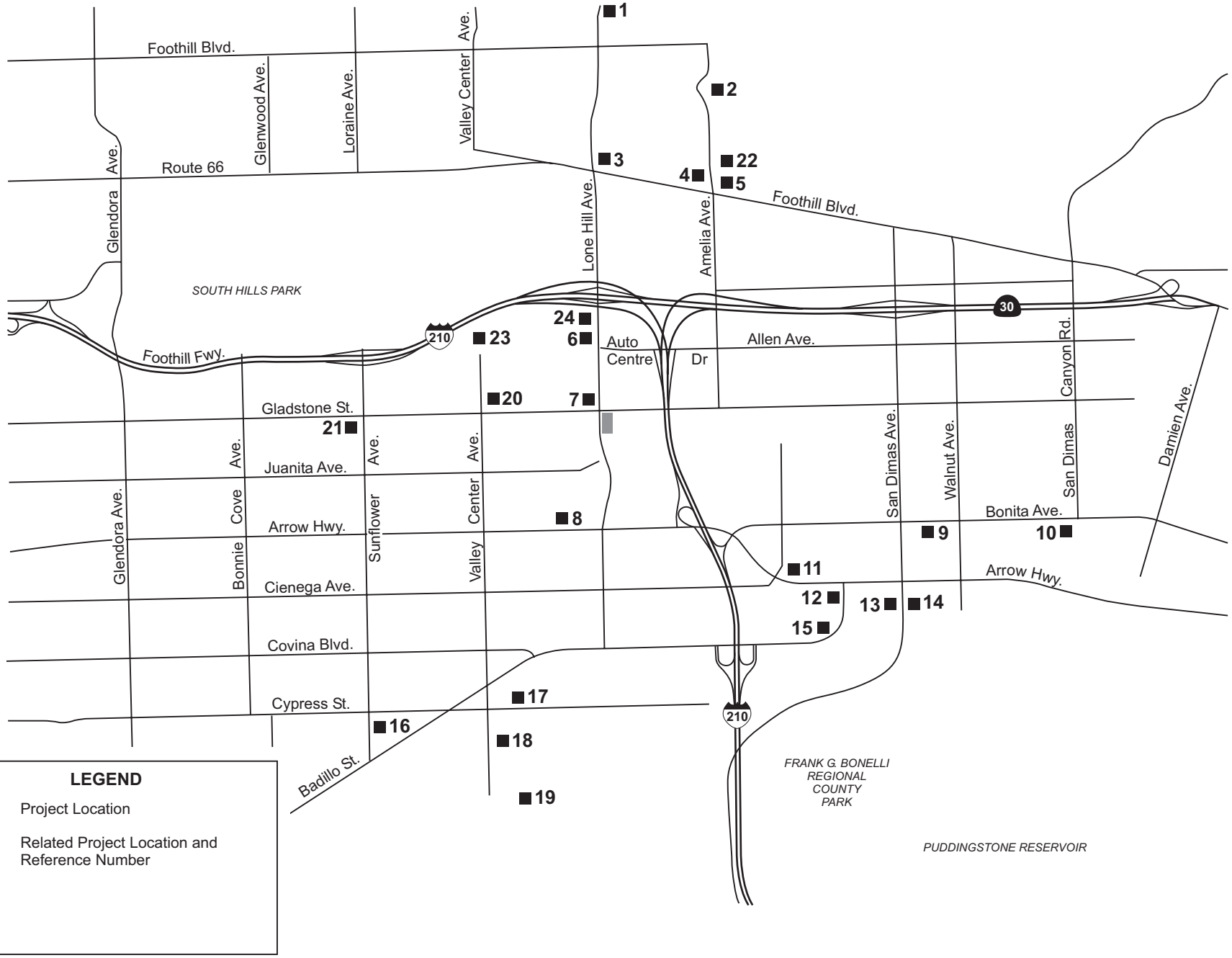
Project	City	Address	Status	Details	Intensity	Basis	Daily Trips	AM Trips	AM In	AM Out	PM Trips	PM In	PM Out	Sat Trips	Sat In	Sat Out
11	San Dimas	NE corner of Arrow and Eucla	Approved	Hotel (assumed size at 100 rooms)	100.000	Units	563	45	17	28	47	25	22	76	34	42
12-a	San Dimas	328 West Arrow Highway	Pending Approval	Multi use facility w/auto repair	20.000	KSF	676	59	38	21	68	34	34	68	34	34
12-b				614 self-storage units	614.000	Units	172	92	54	38	160	81	78	246	123	123
13	San Dimas	SW corner of Arrow & San Dimas	Pending Approval	Mixed-Use Project	40.000	KSF	1,717	41	25	16	150	72	78	199	103	95
14	San Dimas	SE corner of Arrow & San Dimas	Pending Approval	16 industrial buildings	172.000	KSF	1,199	158	139	19	169	21	148	24	11	13
15	San Dimas	320 West Covina Blvd.	Pending Approval	new industrial building	23.691	KSF	165	22	19	3	23	3	20	3	2	2
16	Covina	21000 Block East Cypress	Pending Approval	Construct 25 condos	25.000	Units	208	17	4	12	21	12	9	12	6	5
17	San Dimas	1335 West Cypress Street	Under Constr.	26,061 sq.ft. medical office	26.061	KSF	942	63	51	13	95	26	70	95	54	41
18	San Dimas	1160 South Valley Center	Approved	Subdivide 22 lots into 19 residential lots	19.000	Units	182	14	4	11	19	12	7	18	10	8
19	San Dimas	Baptist Bible College	Pending Approval	106 new single family homes	106.000	Units	1,014	80	20	60	107	69	39	100	54	46
20	Glendora	NEC Valley Center/ Gladstone	Application	Free-standing discount store	276.000	KSF	12,961	508	259	249	1,054	517	538	1,355	691	664

Project	City	Address	Status	Details	Intensity	Basis	Daily Trips	AM Trips	AM In	AM Out	PM Trips	PM In	PM Out	Sat Trips	Sat In	Sat Out
21A	Glendora	SWC Gladstone & Sunflower	Approved	Sunflower Library	15.000	KSF	810	16	11	4	106	51	55	101	54	48
21B				New soccer fields	3.000	Fields	214	4	2	2	62	43	19	86	41	45
22	Glendora	NEC Amelia & Route 66	Approved	9,000 sq.ft. office building	9.000	KSF	99	14	12	2	13	2	11	4	2	2
23	Glendora	Louie Pompei Sports Park, Valley Center near I-210	Approved	Add'l acres *	3.600	acres	6	0	0	0	0	0	0	6	3	2
				Ball fields **	9.000	Fields	729	0	0	0	243	122	122	481	241	241
				Soccer fields	3.000	Fields	214	4	2	2	62	43	19	86	41	45
24	Glendora	Lone Hill and Auto Centre	Application	Expansion of existing dealership	40.000	KSF	1,500	88	65	24	112	45	67	119	61	58
TOTALS:							**32,332**	**1,821**	1,011	810	**3,368**	1,614	1,755	**4,037**	2,100	1,937

** For City Park uses, ITE does not provide rates outside of daily rates per acre. This rate was therefore factored into peak numbers utilizing the ratios of peak and daily rates in the County Park category.*

*** Trip generation for ball fields taken from Field Usage Appendix of the South Weymouth Naval Air Station Open Space and Recreation Plan (re-use of base); Daylor Consulting Group, Inc.; January, 2002.*

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004~~. December 2004.



Katz, Okitsu & Associates
Traffic Engineers and Transportation Planners

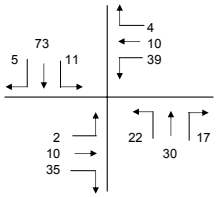
Costco Commercial Complex, San Dimas, CA., Traffic Study

Figure 3L-17

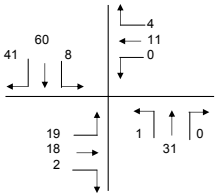
Locations of Related Projects

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

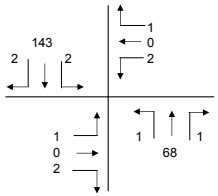
Intersection 1
N/S Lone Hill Ave.
E/W Route 66



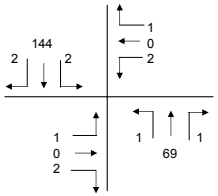
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.



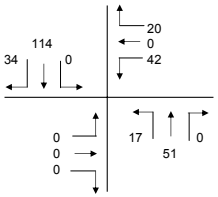
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



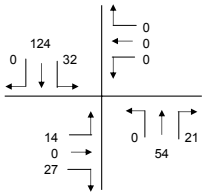
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



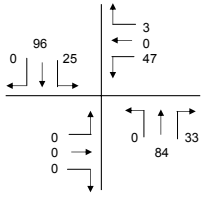
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



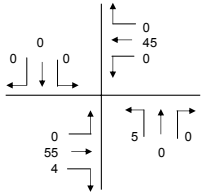
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



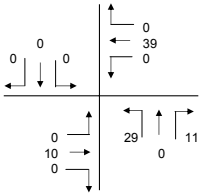
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



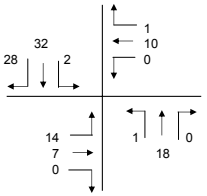
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



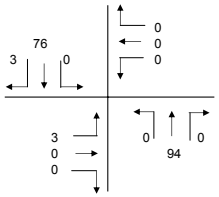
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



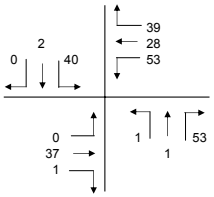
Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



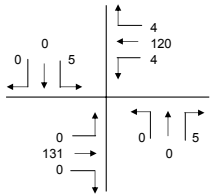
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



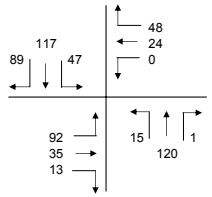
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



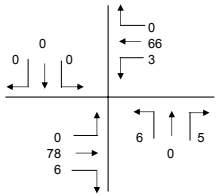
Intersection 13
N/S Willow St.
E/W Gladstone St.



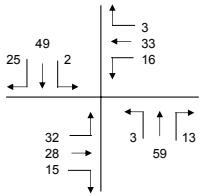
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



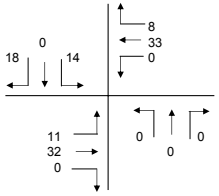
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



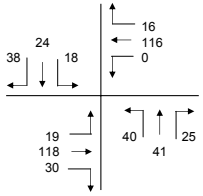
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



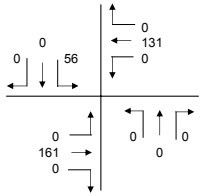
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



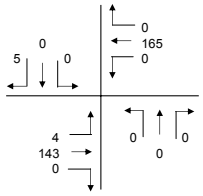
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



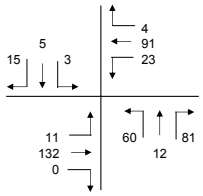
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.

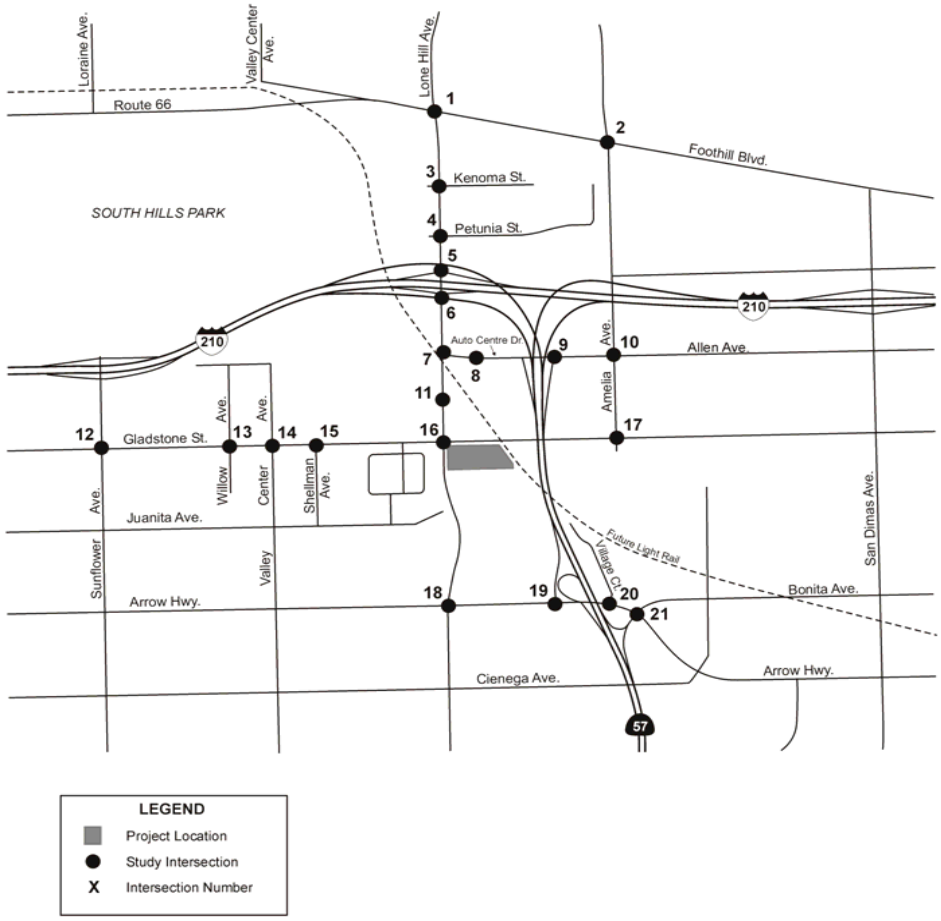


Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





Katz, Okitsu & Associates
Traffic Engineers and Transportation Planners

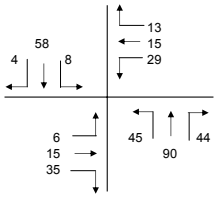
Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-18

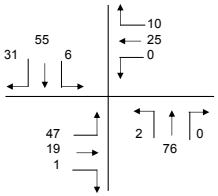
Weekday AM Peak Hour Related Project Trips

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

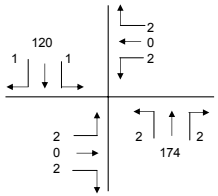
Intersection 1
N/S Lone Hill Ave.
E/W Route 66



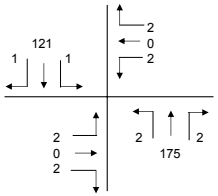
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.



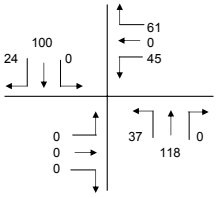
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



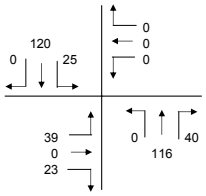
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



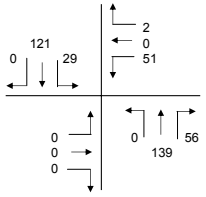
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



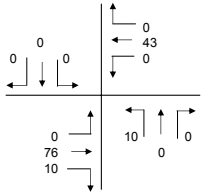
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



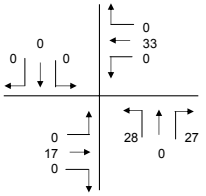
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



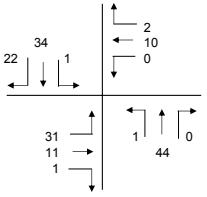
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



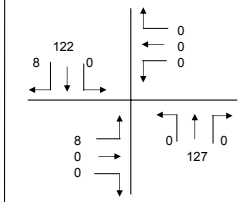
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



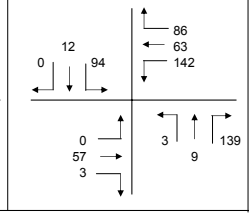
Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



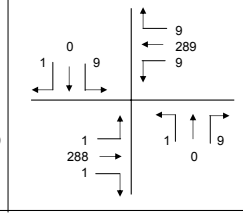
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



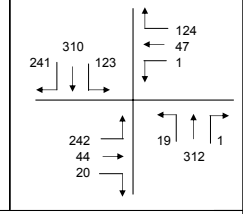
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



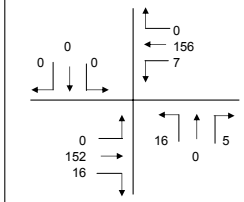
Intersection 13
N/S Willow St.
E/W Gladstone St.



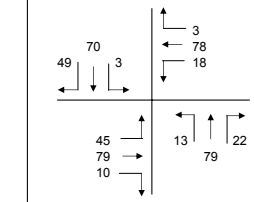
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



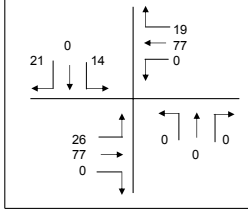
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



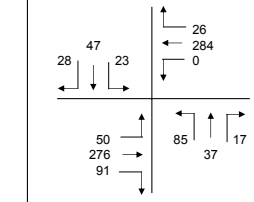
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



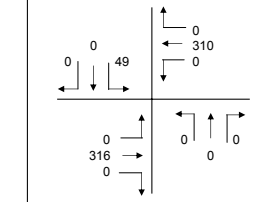
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



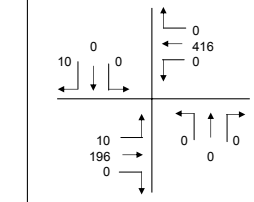
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



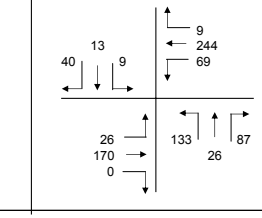
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.

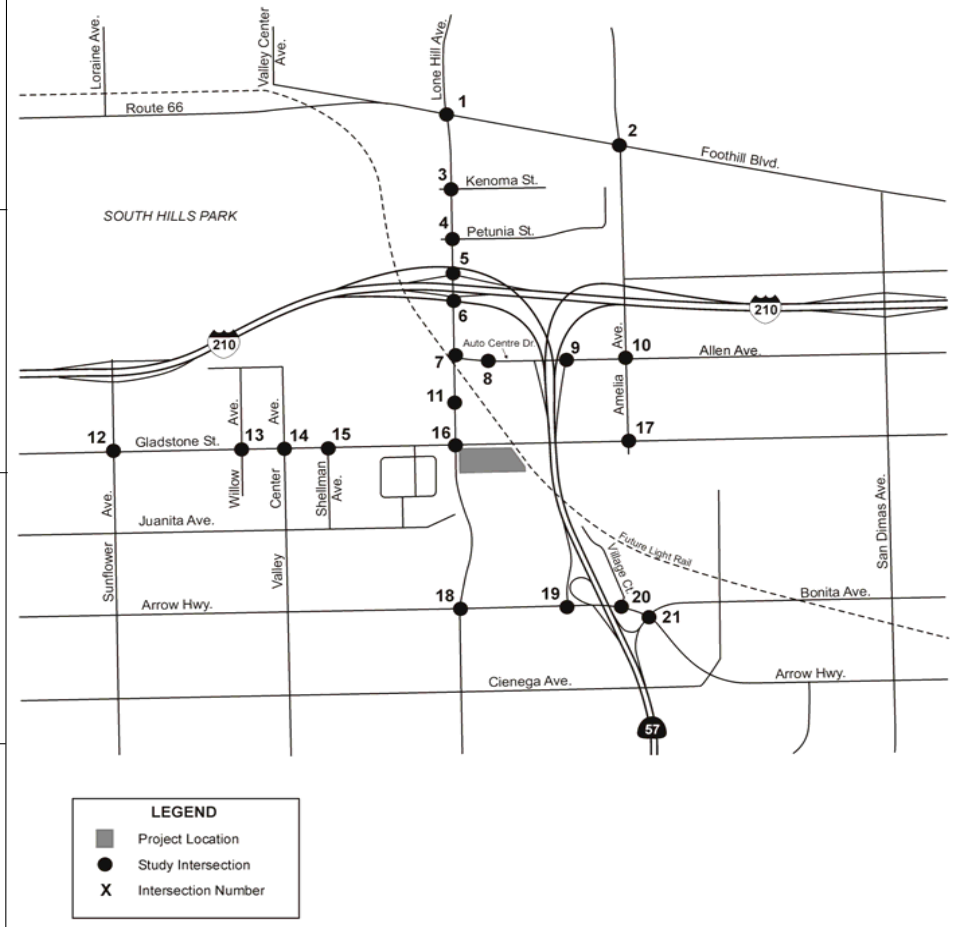


Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





Katz, Okitsu & Associates
Traffic Engineers and Transportation Planners

Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-19

Weekday PM Peak Hour Related Project Trips

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

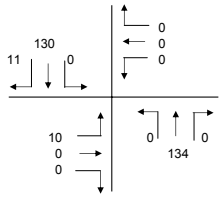
Intersection 1
N/S Lone Hill Ave.
E/W Route 66

Not Analyzed for Saturday

Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps

Not Analyzed for Saturday

Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



Intersection 12
N/S Sunflower St.
E/W Gladstone St.

Not Analyzed for Saturday

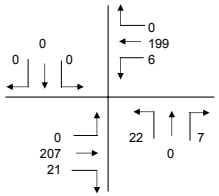
Intersection 13
N/S Willow St.
E/W Gladstone St.

Not Analyzed for Saturday

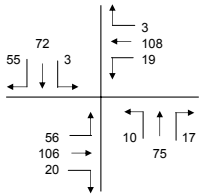
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.

Not Analyzed for Saturday

Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



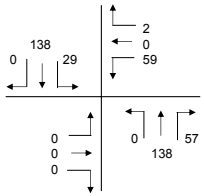
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.

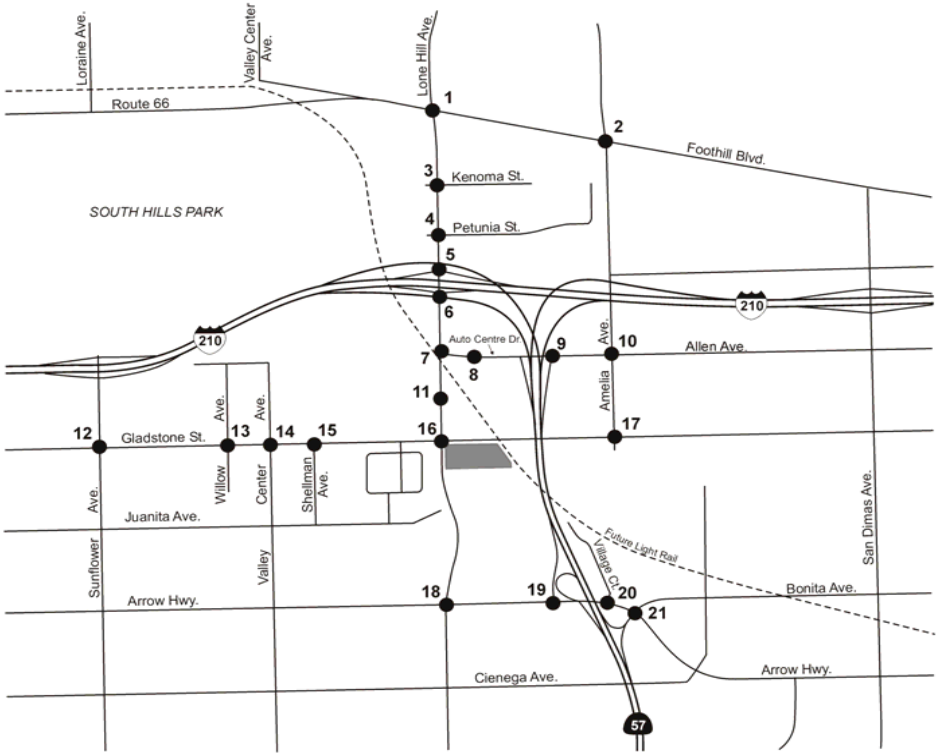


Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.

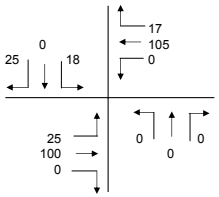
Not Analyzed for Saturday

Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.

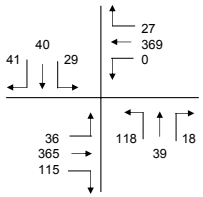




Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



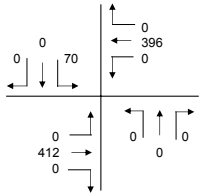
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.

Not Analyzed for Saturday

Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



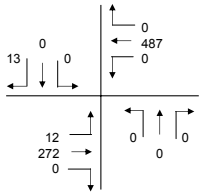
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.

Not Analyzed for Saturday

Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



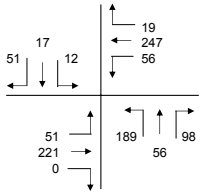
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps

Not Analyzed for Saturday

Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.

Not Analyzed for Saturday

Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.



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Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-20

Saturday Peak Hour Related Project Trips

TABLE 3L-6: YEAR 2005 WITH CUMULATIVE PROJECTS TRAFFIC CONDITIONS

	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak**	
Intersection Location	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Lone Hill Ave./Route 66	~~0.735~~0.835	~~C~~D	~~0.830~~0.930	~~D~~E	-	-
2. Amelia Ave./Route 66	~~0.507~~0.607	~~A~~B	~~0.504~~0.604	~~A~~B	-	-
3. Lone Hill Ave./Kenoma St. *	48.6 sec.	E	>100 s.	F	-	-
4. Lone Hill Ave./Petunia St.	~~0.496~~0.596	A	~~0.565~~0.665	~~A~~B	-	-
5. Lone Hill Ave./I-210 Wb ramps	~~0.929~~1.029	~~E~~F	~~1.352~~1.452	F	-	-
6. Lone Hill Ave./I-210 Eb ramps	~~0.654~~0.754	~~B~~C	~~0.797~~0.897	~~C~~D	-	-
7. Lone Hill Ave./Auto Centre Dr.	~~0.540~~0.640	~~A~~B	~~0.841~~0.941	~~D~~E	~~0.728~~0.828	~~C~~D
8. Walmart Dwy./Auto Centre Dr.	~~0.336~~0.436	A	~~0.489~~0.589	A	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	~~0.425~~0525	A	~~0.604~~0.704	~~B~~C	-	-
10. Amelia Ave./Auto Centre Dr.-Allen	~~0.366~~0.466	A	~~0.437~~0.537	A	-	-
11. Lone Hill Ave./Gl. Marketplace Dwy.	~~0.299~~0.399	A	~~0.454~~0.554	A	~~0.507~~0.607	~~A~~B
12. Sunflower St./Gladstone St.	~~0.459~~0.559	A	~~0.624~~0.724	~~B~~C	-	-
13. Willow St./Gladstone St.	11.8 sec.	B	20.4 sec.	C	-	-
14. Valley Center Ave./Gladstone St.	19.1 sec.	B	>100 s.	F	-	-
15. Shellman Ave. /Gladstone St. *	12.4 sec.	B	21.4 sec.	C	18.1 sec.	B
16. Lone Hill Ave./Gladstone St.	~~0.429~~0.529	A	~~0.606~~0.706	~~B~~C	~~0.875~~0.975	~~D~~E
17. Amelia Ave.-Pearlanna/Gladstone St.	~~0.405~~0.505	A	~~0.501~~0.601	~~A~~B	~~0.412~~0.512	A
18. Lone Hill Ave./Arrow Hwy.	~~0.585~~0.685	~~A~~B	~~0.741~~0.841	~~C~~D	~~0.694~~0.794	~~B~~C
19. Arrow Hwy./Sb SR-57 Off-Ramp	~~0.577~~0.677	~~A~~B	~~0.665~~0.765	~~B~~C	~~0.810~~0.910	~~D~~E
20. Arrow Hwy./North Village Ct.	~~0.412~~0.512	A	~~0.581~~0.681	~~A~~B	~~0.718~~0.818	~~C~~D
21. Arrow Hwy./Bonita Ave./SR-57 Nb ramps	~~0.799~~0.899	~~C~~D	~~1.109~~1.209	F	~~0.948~~1.048	~~E~~F

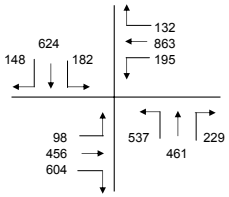
** Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

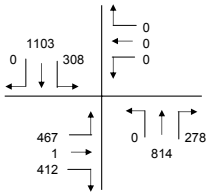
Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004.~~ December 2004.

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

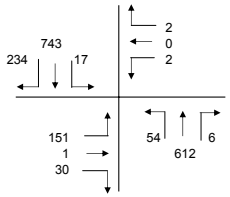
Intersection 1
N/S Lone Hill Ave.
E/W Route 66



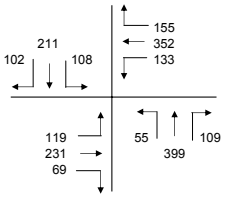
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



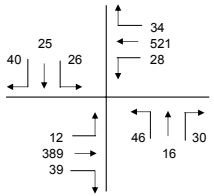
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



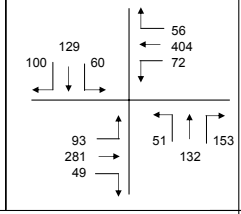
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



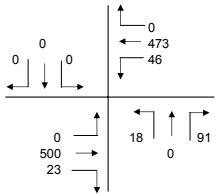
Intersection 13
N/S Willow St.
E/W Gladstone St.



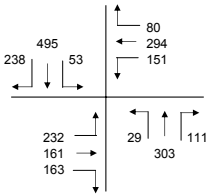
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



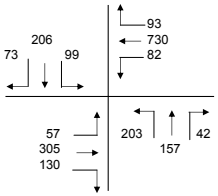
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



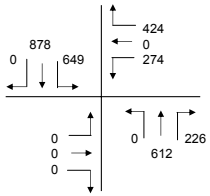
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



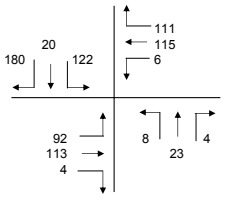
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.



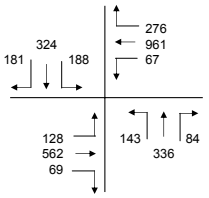
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



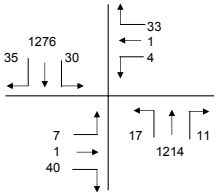
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



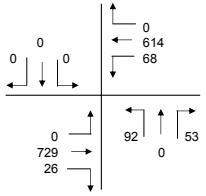
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



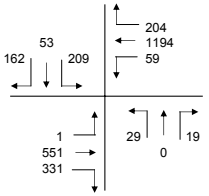
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



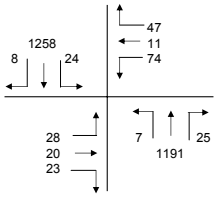
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



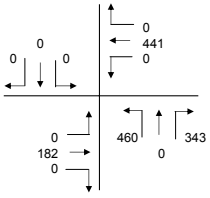
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



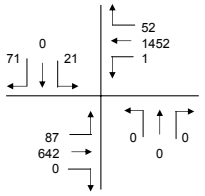
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



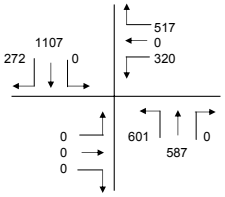
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



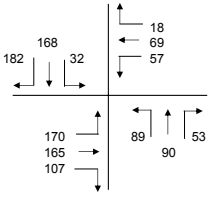
Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



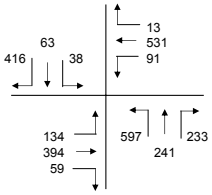
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps

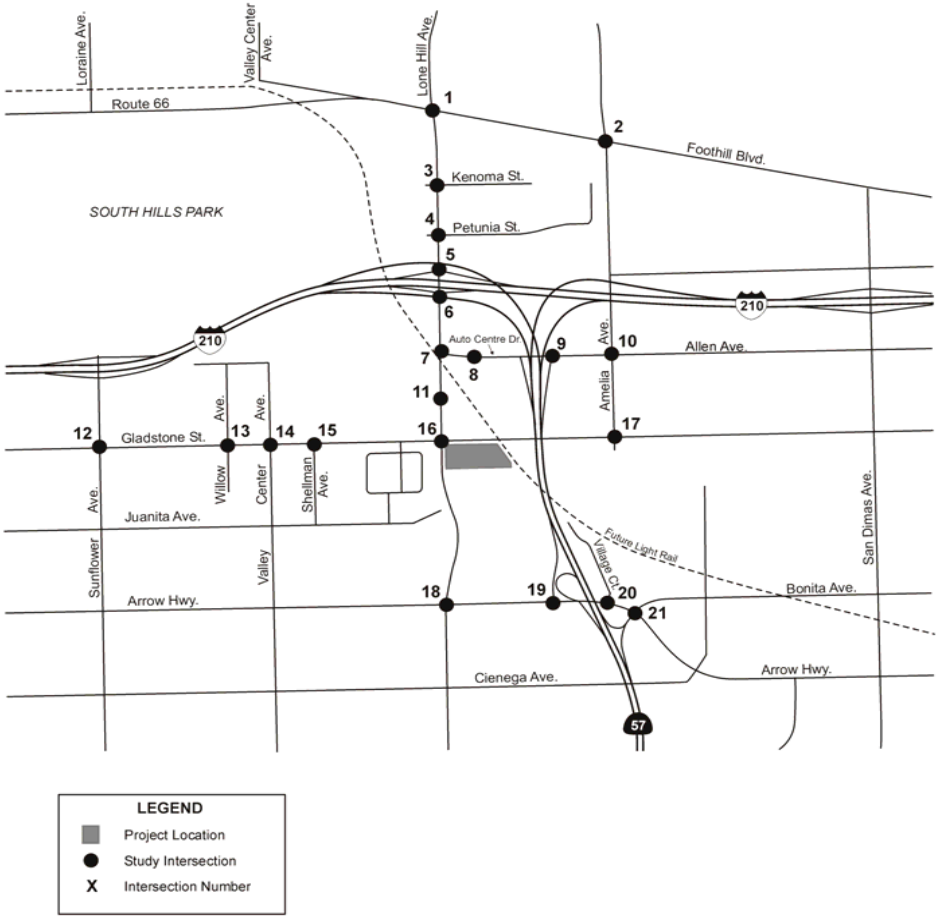


Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





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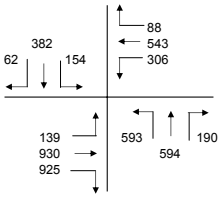
Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-21

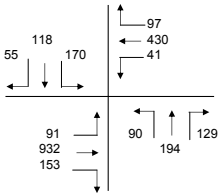
Future (Year 2005) Growth Plus Related Projects - Weekday AM Peak Hour Traffic Volumes

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

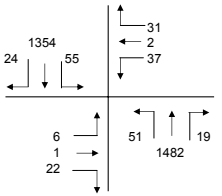
Intersection 1
N/S Lone Hill Ave.
E/W Route 66



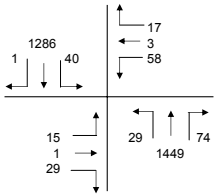
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.



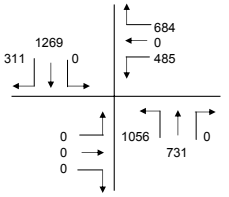
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



Intersection 6
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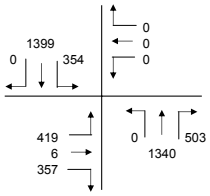
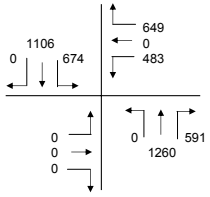
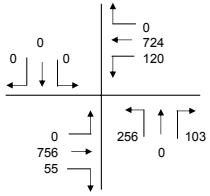
E/W SR 210 EB Ramps



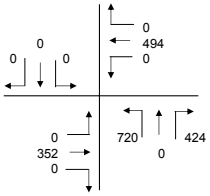
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



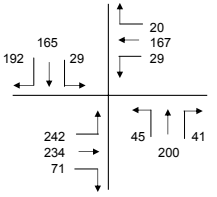
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



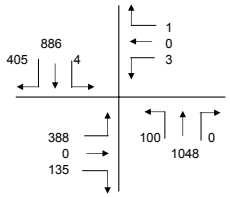
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



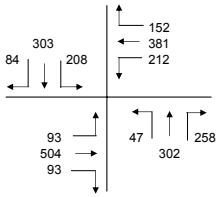
Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



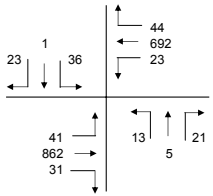
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



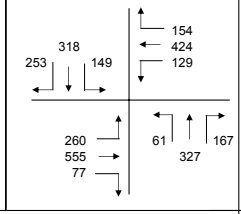
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



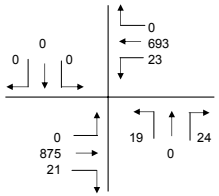
Intersection 13
N/S Willow St.
E/W Gladstone St.



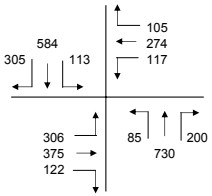
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



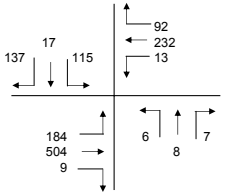
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



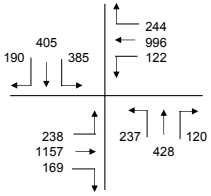
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



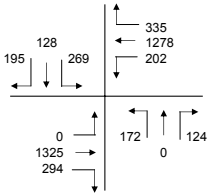
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



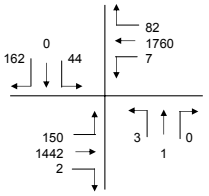
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



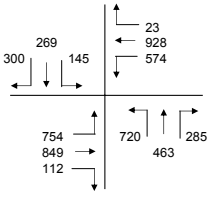
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.



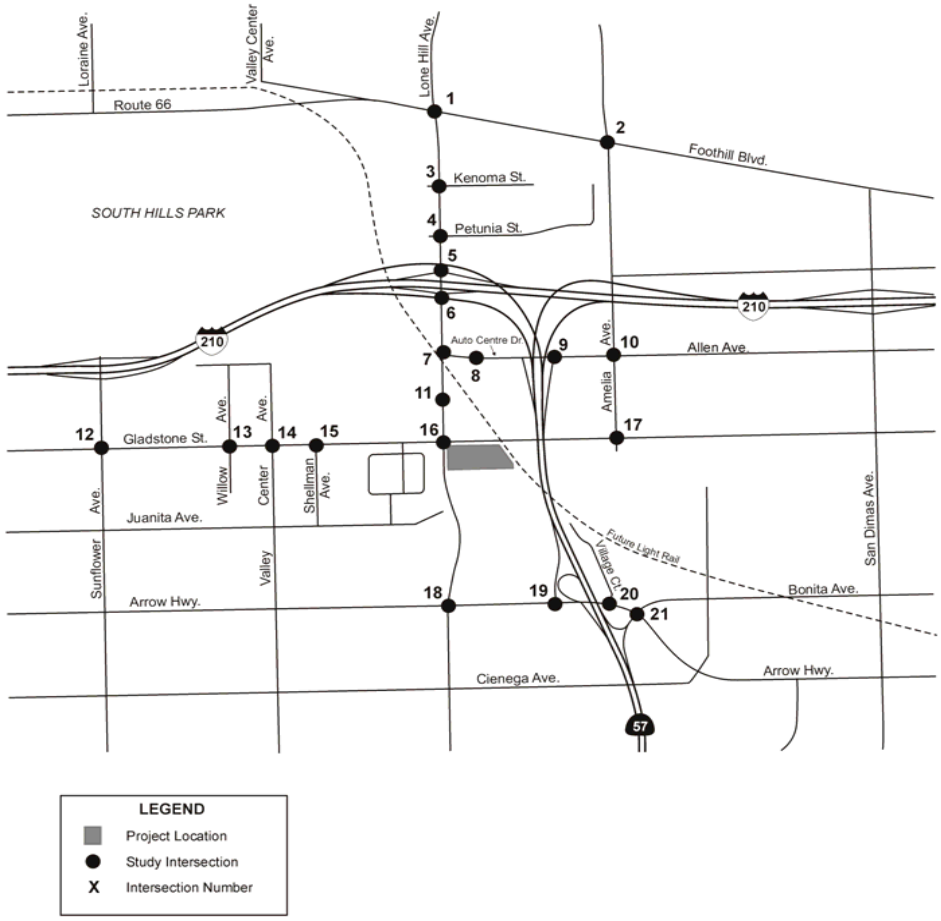


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Figure 3L-22

Future (Year 2005) Growth Plus Related Projects - Weekday PM Peak Hour Traffic Volumes

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

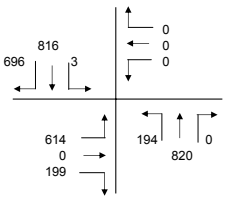
Intersection 1
N/S Lone Hill Ave.
E/W Route 66

Not Analyzed for Saturday

Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps

Not Analyzed for Saturday

Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



Intersection 12
N/S Sunflower St.
E/W Gladstone St.

Not Analyzed for Saturday

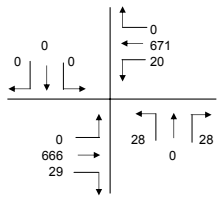
Intersection 13
N/S Willow St.
E/W Gladstone St.

Not Analyzed for Saturday

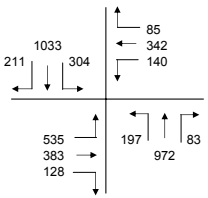
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.

Not Analyzed for Saturday

Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



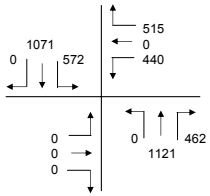
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



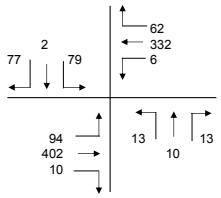
Intersection 2
N/S Amelia Ave.
E/W Route 66/Foothill Blvd.

Not Analyzed for Saturday

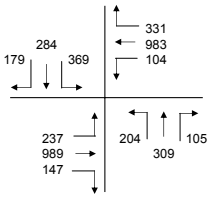
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



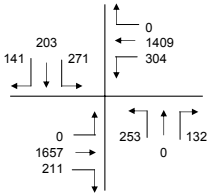
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.

Not Analyzed for Saturday

Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



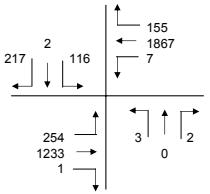
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.

Not Analyzed for Saturday

Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



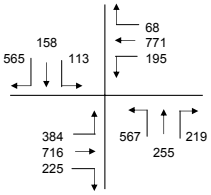
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps

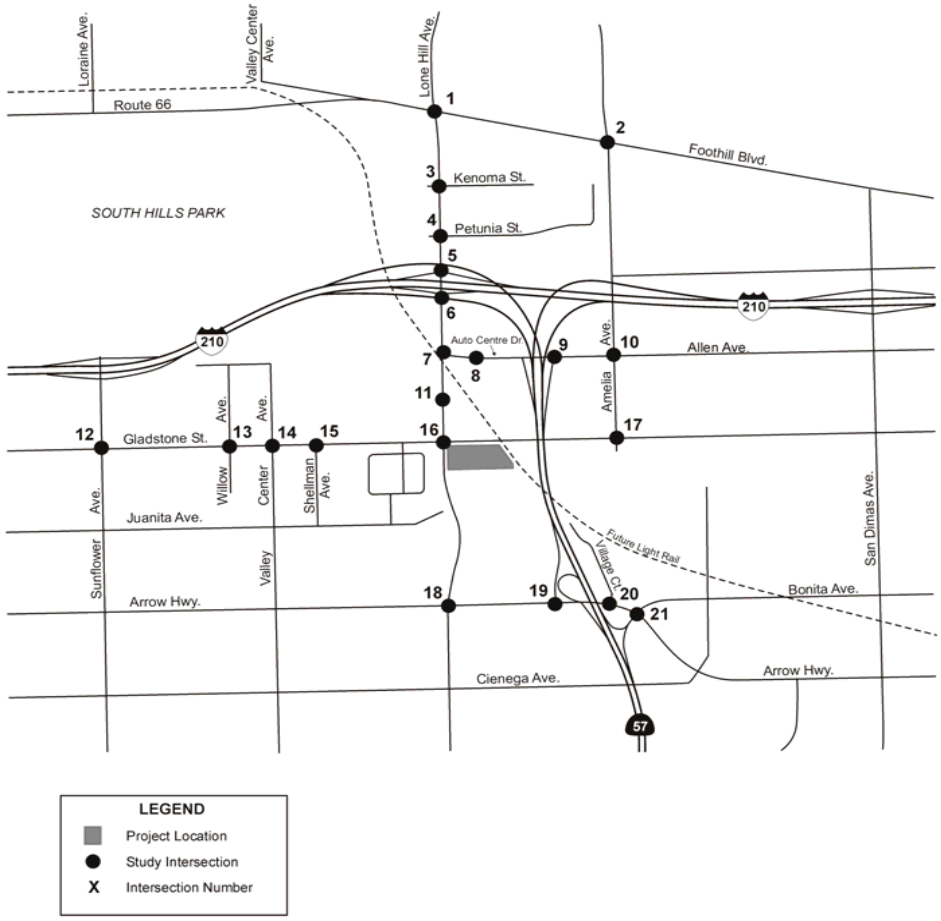
Not Analyzed for Saturday

Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.

Not Analyzed for Saturday

Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





N

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Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-23

Future (Year 2005) Growth Plus Related Projects - Saturday Peak Hour Traffic Volumes

TABLE 3L-7: YEAR 2005 WITH CUMULATIVE PROJECTS AND PROPOSED PROJECT TRAFFIC CONDITIONS

	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak**	
Intersection Location	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Lone Hill Ave./Route 66	~~0.741~~0.839	~~C~~D	~~0.854~~0.946	~~D~~E	-	-
2. Amelia Ave./Route 66	~~0.512~~0.610	~~A~~B	~~0.525~~0.619	~~A~~B	-	-
3. Lone Hill Ave./Kenoma St. *	~~52.5~~ 51.1 sec.	F	>100 sec.	F	-	-
4. Lone Hill Ave./Petunia St.	~~0.505~~0.593	A	~~0.592~~0.685	~~A~~B	-	-
5. Lone Hill Ave./I-210 Wb ramps	~~0.948~~1.042	~~E~~F	~~1.397~~1.484	F	-	-
6. Lone Hill Ave./I-210 Eb ramps	~~0.663~~0.761	~~B~~C	~~0.820~~0.914	~~D~~E	-	-
7. Lone Hill Ave./Auto Centre Dr.	~~0.566~~0.658	~~A~~B	~~0.906~~0.988	E	~~0.842~~0.893	D
8. Walmart Dwy./Auto Centre Dr.	~~0.345~~0.443	A	~~0.515~~0.608	~~A~~B	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	~~0.448~~0.539	A	~~0.648~~0.735	~~B~~C	-	-
10. Amelia Ave./Auto Centre Dr.-Allen	~~0.377~~0.470	A	~~0.454~~0.549	A	-	-
11. Lone Hill Ave./Gl. Marketplace Dwy.	~~0.335~~0.420	A	~~0.528~~0.607	~~A~~B	~~0.636~~0.680	B
12. Sunflower St./Gladstone St.	~~0.466~~0.564	A	~~0.645~~0.739	~~B~~C	-	-
13. Willow St./Gladstone St. *	12.1 sec.	B	22~~3~~.5 sec.	C~~B~~	-	-
14. Valley Center Ave./Gladstone St. *	20.1 sec.	C	>100 sec.	F	-	-
15. Shellman Ave. /Gladstone St. *	12.7 sec.	B	22.8~~3.5~~ sec.	C	~~21.4~~19.9 sec.	C
16. Lone Hill Ave./Gladstone St.	~~0.471~~0.556	A	~~0.702~~0.774	C	~~1.029~~1.062	F
17. Amelia Ave.-Pearlanna/Gladstone St.	~~0.418~~0.513	A	~~0.519~~0.612	~~A~~B	~~0.462~~0.540	A
18. Lone Hill Ave./Arrow Hwy.	~~0.607~~0.699	B	~~0.790~~0.876	~~C~~D	~~0.781~~0.843	~~C~~D
19. Arrow Hwy./Sb SR-57 Off-Ramp	~~0.590~~0.685	~~A~~B	~~0.679~~0.774	~~B~~C	~~0.827~~0.920	~~D~~E
20. Arrow Hwy./North Village Ct.	~~0.418~~0.516	A	~~0.595~~0.691	~~A~~B	~~0.743~~0.832	~~C~~D
21. Arrow Hwy./Bonita Ave./SR-57 Nb ramps	~~0.811~~0.906	~~D~~E	~~1.119~~1.216	F	~~0.988~~1.071	~~E~~F

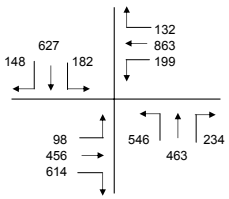
** Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

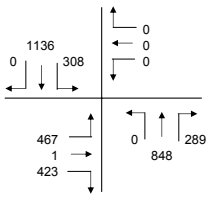
Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004.~~ December 2004.

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

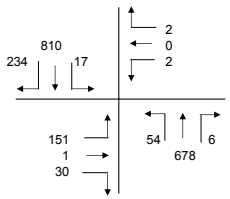
Intersection 1
N/S Lone Hill Ave.
E/W Foothill Blvd. (Rte 66)



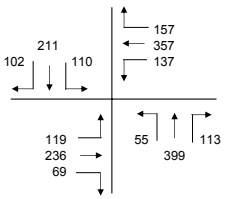
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



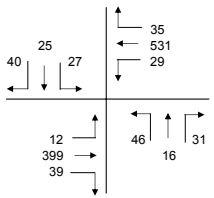
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



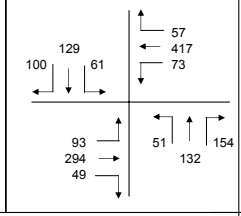
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



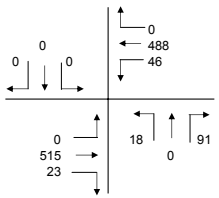
Intersection 13
N/S Willow St.
E/W Gladstone St.



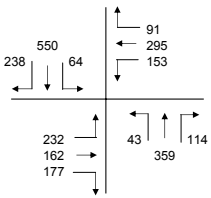
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



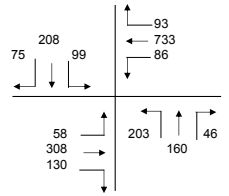
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



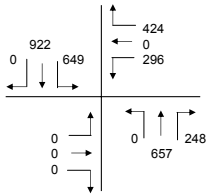
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.

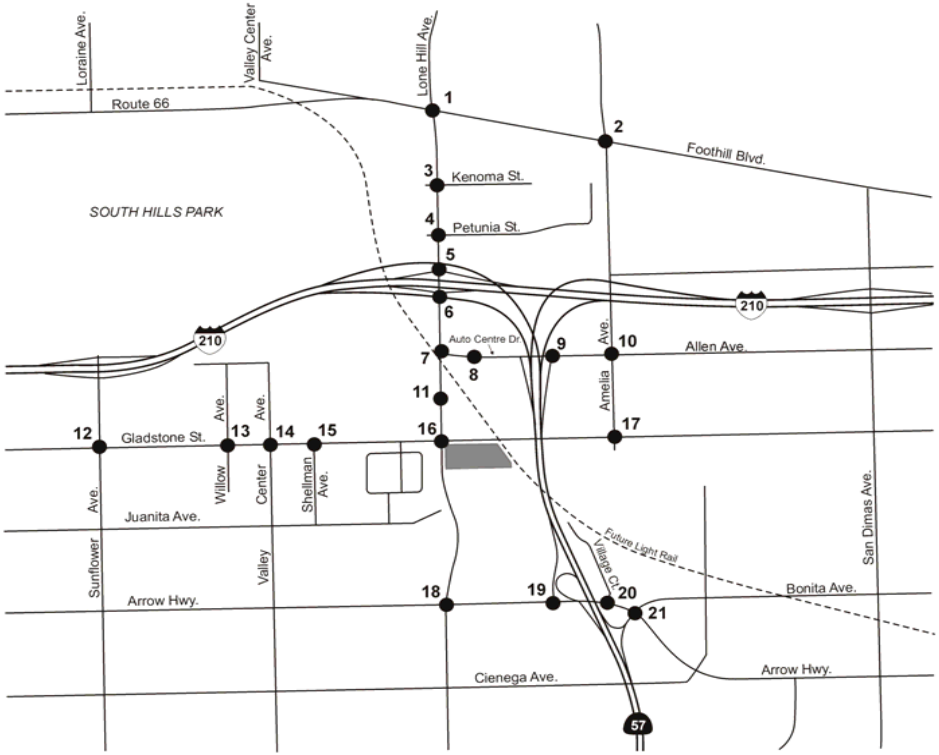


Intersection 2
N/S Amelia Ave.
E/W Foothill Blvd. (Rte 66)

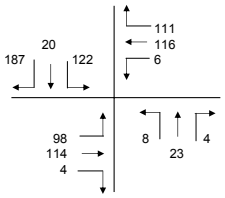


Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.

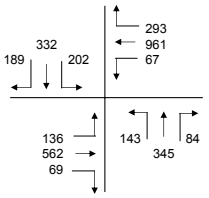




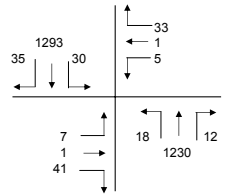
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



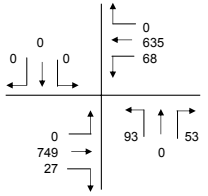
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



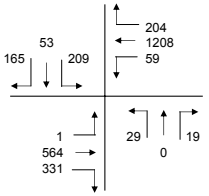
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



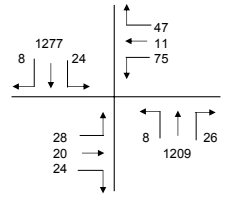
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



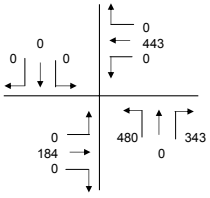
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



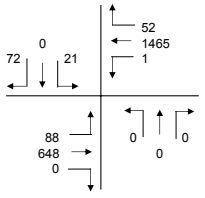
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



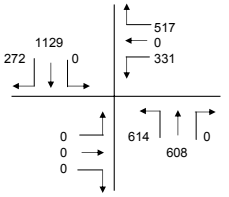
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



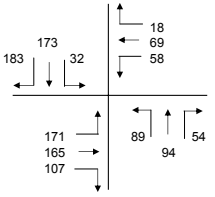
Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps



Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.

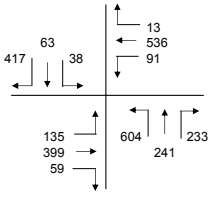


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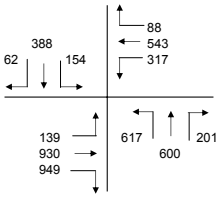
Figure 3L-24

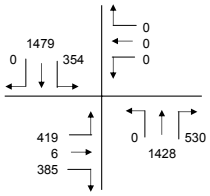
Future (Year 2005) Growth Plus Related Projects Plus Project Weekday AM Peak Hour Traffic Volumes

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

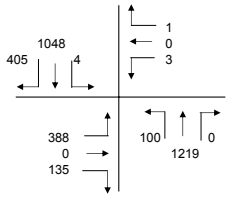
Intersection 1
N/S Lone Hill Ave.
E/W Foothill Blvd. (Rte 66)



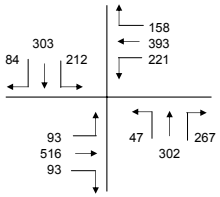
Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps



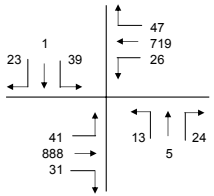
Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



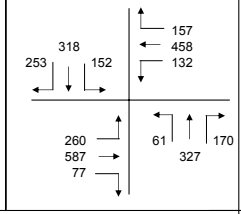
Intersection 12
N/S Sunflower St.
E/W Gladstone St.



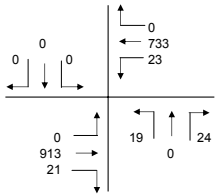
Intersection 13
N/S Willow St.
E/W Gladstone St.



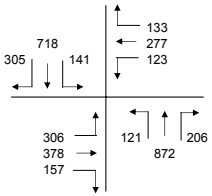
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.



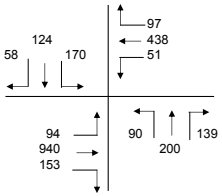
Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



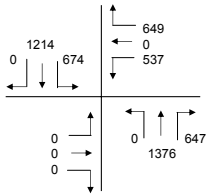
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.



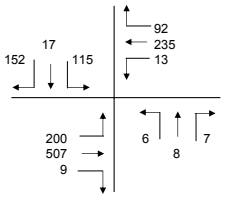
Intersection 2
N/S Amelia Ave.
E/W Foothill Blvd. (Rte 66)



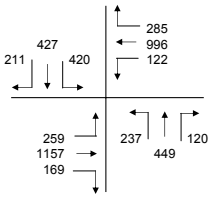
Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.



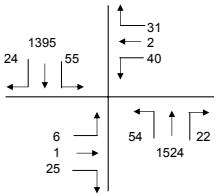
Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



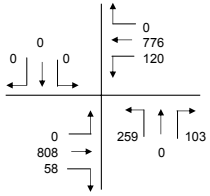
Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



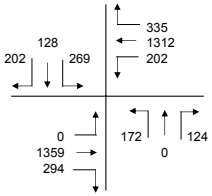
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.



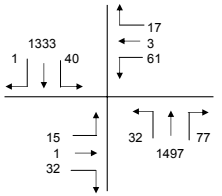
Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.



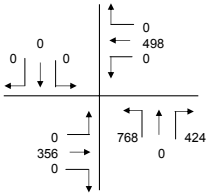
Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



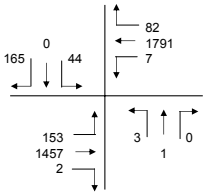
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.



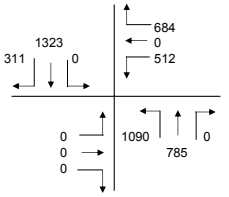
Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.



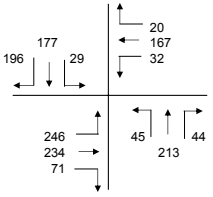
Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



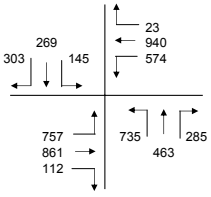
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps

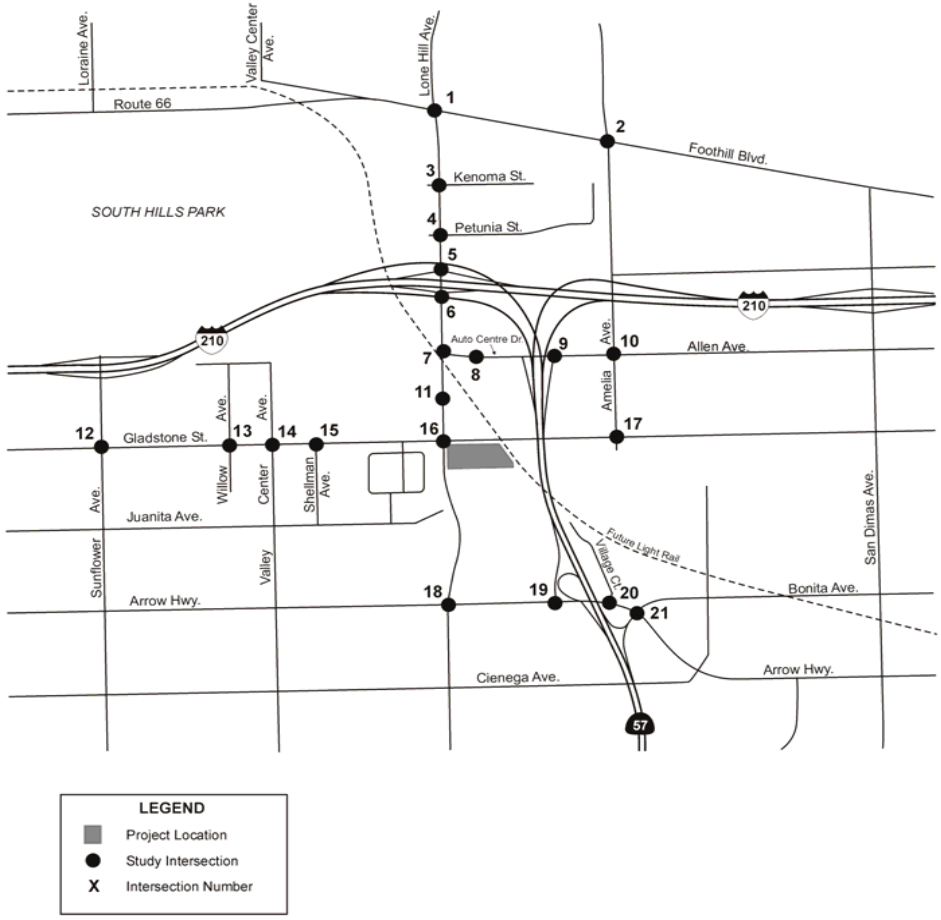


Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.



Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.





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Costco Commercial Complex, San Dimas, CA - Traffic Study

Figure 3L-25

Future (Year 2005) Growth Plus Related Projects Plus Project Weekday PM Peak Hour Traffic Volumes

Traffic Count - Graphic Conversion: Copyright: Digital Media Productions, 2004

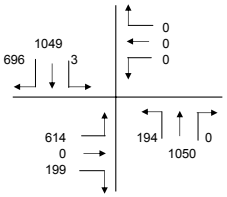
Intersection 1
N/S Lone Hill Ave.
E/W Foothill Blvd. (Rte 66)

Not Analyzed for Saturday

Intersection 6
N/S Lone Hill Ave.
E/W SR 210 EB Ramps

Not Analyzed for Saturday

Intersection 11
N/S Lone Hill Ave.
E/W Glendora Marketplace Dwy.



Intersection 12
N/S Sunflower St.
E/W Gladstone St.

Not Analyzed for Saturday

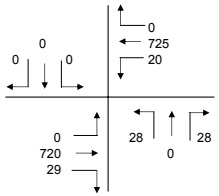
Intersection 13
N/S Willow St.
E/W Gladstone St.

Not Analyzed for Saturday

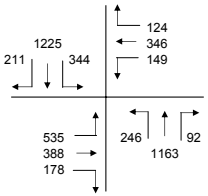
Intersection 14
N/S Valley Center Ave.
E/W Gladstone St.

Not Analyzed for Saturday

Intersection 15
N/S Shellman Ave.
E/W Gladstone St.



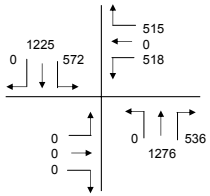
Intersection 16
N/S Lone Hill Ave.
E/W Gladstone St.

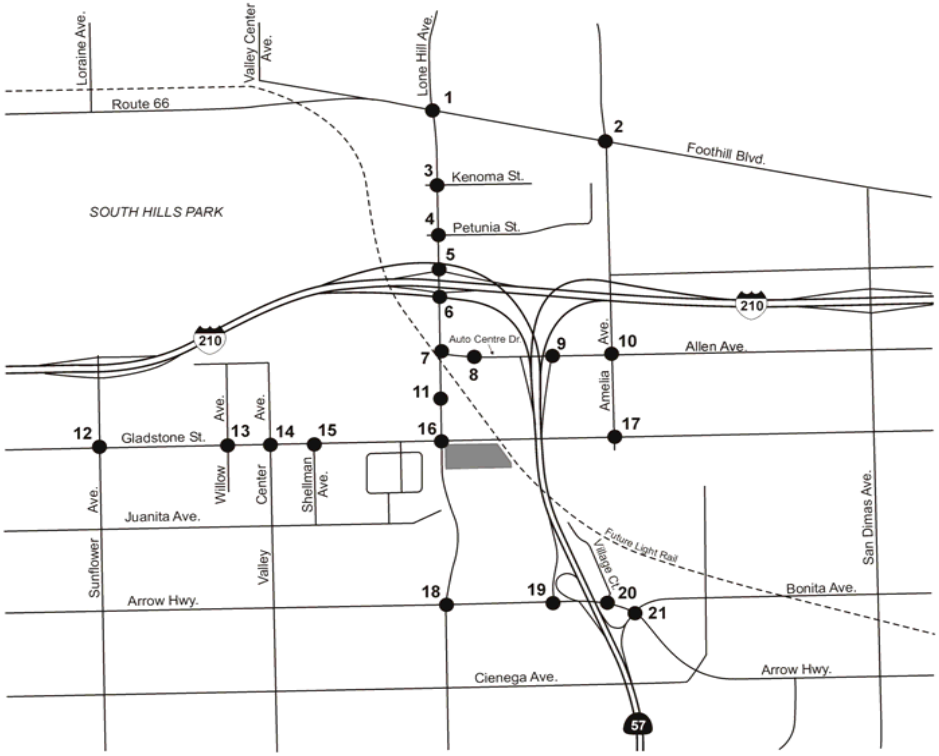


Intersection 2
N/S Amelia Ave.
E/W Foothill Blvd. (Rte 66)

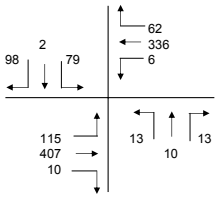
Not Analyzed for Saturday

Intersection 7
N/S Lone Hill Ave.
E/W Auto Centre Dr.

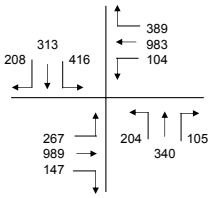




Intersection 17
N/S Amelia Ave./Pearlanna Dr.
E/W Gladstone St.



Intersection 18
N/S Lone Hill Ave.
E/W Arrow Hwy.



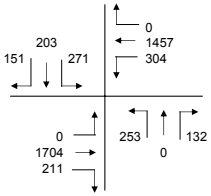
Intersection 3
N/S Lone Hill Ave.
E/W Kenoma St.

Not Analyzed for Saturday

Intersection 8
N/S Walmart Dwy.
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 19
N/S SR 57 SB Off Ramp
E/W Arrow Hwy.



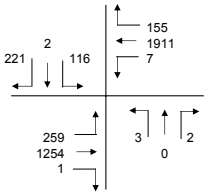
Intersection 4
N/S Lone Hill Ave.
E/W Petunia St.

Not Analyzed for Saturday

Intersection 9
N/S SR 57 NB Off Ramp
E/W Auto Centre Dr.

Not Analyzed for Saturday

Intersection 20
N/S North Village Ct.
E/W Arrow Hwy.



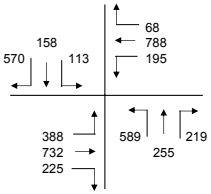
Intersection 5
N/S Lone Hill Ave.
E/W SR 210 WB Ramps

Not Analyzed for Saturday

Intersection 10
N/S Amelia Ave.
E/W Auto Centre Dr./Allen Ave.

Not Analyzed for Saturday

Intersection 21
N/S Bonita Ave.
E/W Arrow Hwy.



N

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Figure 3L-26

Future (Year 2005) Growth Plus Related Projects Plus Project Saturday Peak Hour Traffic Volumes

TABLE 3L-8: SIGNIFICANT IMPACT ANALYSIS

Intersection		Existing Conditions (Year 2004) V/C or Delay	Existing Conditions (Year 2004) LOS	Future with Ambient Growth (Year 2005) V/C or Delay	Future with Ambient Growth (Year 2005) LOS	Future + Cumulative Projects (Year 2005) V/C or Delay	Future + Cumulative Projects (Year 2005) LOS	Future + Cumulative + Proposed Project (Year 2005) V/C or Delay	Future + Cumulative + Proposed Project (Year 2005) LOS	Diff.	Signf?
1. Lone Hill Ave./Route 66	AM	~~0.693~~ 0.793	~~B~~C	~~0.700~~ 0.800	~~C~~ D	~~0.735~~ 0.835	~~C~~ D	~~0.741~~ 0.839	~~C~~ D	0.00~~46~~	No
	PM	~~0.758~~ 0.858	~~C~~D	~~.0766~~ 0.866	~~C~~ D	~~0.830~~ 0.930	~~D~~ E	~~0.854~~ 0.946	~~D~~ E	0.0 16~~24~~	**Yes**
	Sat**	-	-	-	-	-	-	-	-	-	-
2. Amelia Ave./Route 66	AM	~~0.454~~ 0.554	A	~~0.459~~ 0.559	A	~~0.507~~ 0.607	~~A~~ B	~~0.512~~ 0.610	~~A~~ B	0.00~~35~~	No
	PM	~~0.489~~ 0.589	A	~~0.494~~ 0.594	A	~~0.504~~ 0.604	~~A~~ B	~~0.525~~ 0.619	~~A~~ B	0.0 15~~21~~	No
	Sat**	-	-	-	-	-	-	-	-	-	-
3. Lone Hill Ave./Kenoma St. *	AM	31.1 sec.	D	32.1 sec.	D	48.6 sec.	E	~~52.5~~ 51.1 sec.	F	-	**Yes**
	PM	>100 sec.	F	>100 sec.	F	>100 sec.	F	>100 sec.	F	-	**Yes**
	Sat**	-	-	-	-	-	-	-	-	-	-
4. Lone Hill Ave./Petunia St.	AM	~~0465~~ 0.565	A	~~0.470~~ 0.570	A	~~0.496~~ 0.596	A	~~0.505~~ 0.596	A	0.000~~9~~	No
	PM	~~0.494~~ 0.594	A	~~0.499~~ 0.599	A	~~0.565~~ 0.665	~~A~~ B	~~0.592~~ 0.685	~~A~~ B	0.020~~7~~	No
	Sat**	-	-	-	-	-	-	-	-	-	-
5. Lone Hill Ave./I-210 Wb on and off ramps	AM	~~0.874~~ 0.974	~~D~~E	~~0.882~~ 0.982	~~D~~ E	~~0.929~~ 1.029	~~E~~ F	~~0.948~~ 1.042	E	0.0 13 ~~19~~	**Yes**
	PM	~~1.257~~ 1.357	F	~~1.270~~ 1.370	F	~~1.352~~ 1.452	F	~~1.397~~ 1.484	F	0.0 32 ~~45~~	**Yes**
	Sat**	-	-	-	-	-	-	-	-	-	-
6. Lone Hill Ave./I-210 Eb on and off ramps	AM	~~0.608~~ 0.708	~~B~~C	~~0.614~~ 0.714	~~B~~ C	~~0.654~~ 0.754	~~B~~ C	~~0.663~~ 0.761	~~B~~ C	0.00~~79~~	No
	PM	~~0.725~~ 0.825	~~C~~D	~~0.732~~ 0.832	~~C~~ D	~~0.797~~ 0.897	~~C~~ D	~~0.820~~ 0.914	~~D~~ E	0.0 17 ~~23~~	No
	Sat**	-	-	-	-	-	-	-	-	-	-
7. Lone Hill Ave./Auto Centre Dr.	AM	~~0.490~~ 0.590	A	~~0.495~~ 0.595	A	~~0.540~~ 0.640	~~A~~ B	~~0.566~~ 0.658	~~A~~ B	0.0 18 ~~26~~	No
	PM	~~0.769~~ 0.869	~~C~~D	~~0.777~~ 0.877	~~C~~ D	~~0.841~~ 0.941	~~D~~ E	~~0.906~~ 0.988	E	0.0 47 ~~65~~	**Yes**
	Sat**	~~0.657~~ 0.757	~~B~~C	~~0.663~~ 0.763	~~B~~ C	~~0.728~~ 0.828	~~C~~ D	~~0.842~~ 0.893	D	0.~~114~~ 065	**Yes**
8. Walmart Dwy./Auto Centre Dr.	AM	~~0.311~~ 0.411	A	~~0.314~~ 0.414	A	~~0.336~~ 0.436	A	~~0.345~~ 0.443	A	0.00~~79~~	No
	PM	~~0.451~~ 0.551	A	~~0.456~~ 0.556	A	~~0.489~~ 0.589	A	~~0.515~~ 0.608	~~A~~ B	0.0 19 ~~26~~	No
	Sat**	-	-	-	-	-	-	-	-	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	AM	~~0.391~~ 0.491	A	~~0.395~~ 0.495	A	~~0.425~~ 0.525	A	~~0.448~~ 0.539	A	0.0 14 ~~23~~	No
	PM	~~0.571~~ 0.671	~~A~~B	~~0.576~~ 0.676	~~A~~ B	~~0.604~~ 0.704	~~B~~ C	~~0.648~~ 0.735	~~B~~ C	0.0 11 ~~44~~	No
	Sat**	-	-	-	-	-	-	-	-	-	-
10. Amelia Ave./ Auto Centre Dr. Allen Ave.	AM	~~0.348~~ 0.448	A	~~0.352~~ 0.452	A	~~0.366~~ 0.466	A	~~0.377~~ 0.470	A	0.0 04 ~~11~~	No
	PM	~~0.378~~ 0.478	A	~~0.378~~ 0.478	A	~~0.437~~ 0.537	A	~~0.454~~ 0.549	A	0.0 12 ~~17~~	No
	Sat**	-	-	-	-	-	-	-	-	-	-
11. Lone Hill Ave./Glendora Marketplace Dwy.	AM	~~0.271~~ 0.371	A	~~0.274~~ 0.374	A	~~0.299~~ 0.399	A	~~0.335~~ 0.420	A	0.0 21 ~~36~~	No
	PM	~~0.408~~ 0.508	A	~~0.412~~ 0.512	A	~~0.454~~ 0.554	A	~~0.528~~ 0.607	~~A~~ B	0.0 53 ~~74~~	No
	Sat**	~~0.484~~ 0.584	A	~~0.489~~ 0.589	A	~~0.507~~ 0.607	~~A~~ B	~~0.636~~ 0.680	B	0.0 73 ~~129~~	No
12. Sunflower St./ Gladstone St.	AM	~~0.392~~ 0.492	A	~~0.396~~ 0.496	A	~~0.459~~ 0.559	A	~~0.466~~ 0.564	A	0.00~~57~~	No
	PM	~~0.408~~ 0.508	A	~~0.412~~ 0.512	A	~~0.624~~ 0.724	~~B~~ C	~~0.645~~ 0.739	~~B~~ C	0.0 15 ~~21~~	No
	Sat**	-	-	-	-	-	-	-	-	-	-
13. Willow St./Gladstone St. *	AM	10.0 sec.	B	10.1 sec.	B	11.8 sec.	B	12.0~~1~~ sec.	B	-	No
	PM	11.4 sec.	B	11.5 sec.	B	20.4 sec.	C	~~23~~22.5 sec.	C	-	**Yes**
	Sat**	-	-	-	-	-	-	-	-	-	-
14. Valley Center Ave./Gladstone St. *	AM	10.5 sec.	B	10.5 sec.	B	19.1 sec.	C ~~B~~	19.7 ~~20.1~~ sec.	C	-	No
	PM	13.5 sec.	B	13.6 sec.	B	>100 sec.	F	>100 sec.	F	-	**Yes**
	Sat**	-	-	-	-	-	-	-	-	-	-
15. Shellman Ave./Gladstone St. *	AM	11.1 sec.	B	11.1 sec.	B	12.4 sec.	B	12.6~~7~~ sec.	B	-	No
	PM	12.2 sec.	B	12.3 sec.	B	21.4 sec.	C	~~23.5~~ 22.8 sec.	C	-	No

	Sat	11.1 sec.	B	11.1 sec.	B	18.1 sec.	C	21.4 19.9 sec.	C	-	-No
16. Lone Hill Ave./Gladstone St.	AM	0.378 0.478	A	0.381 0.481	A	0.429 0.529	A	0.471 0.556	A	0.042	No
	PM	0.514 0.614	AB	0.519 0.619	A B	0.606 0.706	B C	0.702 0.774	C	0.0689 6	No **Yes**
	Sat	0.757 0.857	CD	0.764 0.864	C D	0.875 0.975	D E	1.029 1.062	F	0.154	**Yes**
17. Amelia Ave.-Pearlanna Dr./Gladstone St.	AM	0.349 0.449	A	0.352 0.452	A	0.405 0.505	A	0.418 0.513	A	0.008 13	No
	PM	0.427 0.527	A	0.431 0.531	A	0.501 0.601	A B	0.519 0.612	A B	0.011 18	No
	Sat	0.290 0.390	A	0.293 0.393	A	0.412 0.512	A	0.462 0.540	A	0.028 50	No
18. Lone Hill Ave./Arrow Hwy.	AM	0.496 0.596	A	0.501 0.601	A B	0.585 0.685	A B	0.607 0.699	B	0.014 22	No
	PM	0.563 0.663	AB	0.568 0.668	A B	0.741 0.841	C D	0.790 0.876	C D	0.035 49	**Yes**
	Sat	0.502 0.602	AB	0.508 0.608	A B	0.694 0.794	B C	0.781 0.843	C D	0.049 87	No **Yes**
19. Arrow Hwy./Sb SR-57 Off-Ramp	AM	0.494 0.594	A	0.499 0.599	A	0.577 0.677	A B	0.590 0.685	A B	0.008 13	No
	PM	0.591 0.691	AB	0.597 0.697	A B	0.665 0.765	B C	0.679 0.774	B C	0.009 14	No
	Sat	0.696 0796	BC	0.703 0.803	C D	0.810 0.910	D E	0.827 0.920	D E	0.010 17	No **Yes**
20. Arrow Hwy./North Village Ct.	AM	0.368 0.468	A	0.372 0.472	A	0.412 0.512	A	0.418 0.516	A	0.0046	No
	PM	0.477 0.577	A	0.481 0.581	A	0.581 0.681	A B	0.595 0.691	A B	0.010 14	No
	Sat	0.595 0.695	AB	0.601 0.701	B C	0.718 0.818	C D	0.743 0.832	C D	0.014 25	No
21. Arrow Hwy./Bonita Ave./SR-57 Nb ramps	AM	0.717 0.817	CD	0.724 0.824	C D	0.799 0.899	C D	0.811 0.906	D E	0.007 12	No
	PM	0.938 1.038	EF	0.948 1.048	E F	1.109 1.209	F	1.119 1.216	F	0.005 10	Yes No
	Sat	0.714 0.814	CD	0.721 0.821	C D	0.948 1.048	E F	0.988 1.071	E F	0.023 40	**Yes**

**-Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion. Because Los Angeles County Guidelines do no identify significant impact thresholds for unsignalized intersections, significance was determined based on degradation from LOS "D" or better to "E" or "F" and/or the need for a traffic signal based on a traffic signal warrant analysis (see Table 3L-9).*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California*, February 24, 2004. December 2004.

hours, eight study intersections during the weekday PM peak hours, and three five study intersections during the Saturday mid-day peak period.

Without mitigation, a number of study intersections would be significantly impacted.

In the weekday AM peak hour, the following signalized intersections would be significantly impacted:

- Lone Hill Avenue/I-210 Westbound Ramps

In the weekday PM peak hour, the following signalized intersections would be significantly impacted:

- Lone Hill Avenue/Route 66
- Lone Hill Avenue/I-210 Westbound Ramps
- Lone Hill Avenue/Auto Centre Drive
- Lone Hill Avenue/Gladstone Street
- Lone Hill Avenue/Arrow Highway
- Arrow Highway/Bonita Avenue/SR-57 Northbound Ramps

In the Saturday mid-day peak hour, the following signalized intersections would be significantly impacted:

- Lone Hill Avenue/Gladstone Street
- Lone Hill Avenue/Arrow Highway
- Arrow Highway/SR-57 Southbound Off-Ramp
- Arrow Highway/Bonita Avenue/SR-57 Northbound Ramps
- Lone Hill Avenue/Auto Centre Drive

Additionally, the proposed project's driveway on Lone Hill Avenue could result in a significant impact without mitigation. With incorporation of mitigation measure **M-3L.1,** impacts to traffic due to the proposed project driveway would be reduced to less than significant.

Impacts to the intersections of Lone Hill Avenue and Route 66, Lone Hill Avenue and I-210 Westbound Ramps, and Lone Hill Avenue and Auto Centre Drive could be mitigated to less than significant levels with the incorporation of mitigation measures **M-3L.2** and **M-3L.3**. However, because these intersections are located within the City of Glendora and, therefore, outside the jurisdiction of the Lead Agency, the implementation of mitigation measures cannot be assured and impacts would remain significant. A detailed explanation and assessment of feasibility of the implementation of mitigation for each intersection follows each individual mitigation measure listed below.

Impacts to the Arrow Highway/Bonita Avenue/SR-57 Northbound Ramps intersection would be reduced to less than significant levels with the implementation of mitigation measure **M-3L.4**. Impacts to the Lone Hill Avenue/Gladstone Street intersection would be reduced to less than significant with the implementation of mitigation measure **M-3L.5**. A detailed explanation and assessment of feasibility of the implementation of mitigation for each intersection follows each individual mitigation measure listed below.

Impacts to the Lone Hill Avenue/Arrow Highway intersection would be significant and unavoidable. The Lone Hill Avenue/Arrow Highway intersection is controlled by a traffic signal with protected left turn phasing at all approaches, and two southbound left turn lanes. Mitigation of project impacts (which occur in the p.m. peak period only) at this study intersection would involve either an additional northbound left turn lane, an additional southbound through lane, an additional eastbound left turn lane, or an additional westbound through lane. No additional roadway width exists at any of these locations that could be used for approach restriping. An alternative mitigation measure was researched based on recommendations from the City of San Dimas. This measure would provide a northbound thru/left lane and northbound/southbound split signal phasing and would not require roadway widening and additional right-of-way. It was found that this mitigation measure would not improve intersection operations to the extent needed for removal of the significant p.m. peak-hour project impact at this location. Therefore, no mitigation can be implemented at this location, due to the infeasibility of widening any of the intersection approaches. Widening of the intersection would likely require purchase of additional roadway right-of-way and could affect the parking lot layouts and existing structures at adjacent commercial centers. Impacts to this intersection would remain significant.

Impacts to the SR-57 Southbound Off-Ramp/Arrow Highway intersection would be significant and unavoidable. This intersection is controlled by a traffic signal with protected left turn phasing at the westbound approach, and split phasing at the northbound and southbound approaches. No additional traffic signal improvements could be implemented at this intersection, and additional approach lanes would require significant widening and potential property acquisition. The addition of an eastbound dedicated right-turn lane – a mitigation that would remove significant project impacts – would require property acquisition along the southern curb of Arrow Highway, to the immediate west of the intersection. Such widening would also negatively affect the ingress movement to the commercial center, and the access driveway to the adjacent senior care center. Such mitigations are considered infeasible and impacts to this intersection would therefore remain significant.

Unsignalized Intersections

The need for traffic signals at intersections that are currently unsignalized was assessed with a traffic signal warrant analysis. Three of the standard signal warrant analyses defined by the Manual of Uniform Traffic Control Devices (taken from Caltrans standards which they now supercede) were utilized to analyze weekday PM peak and Saturday mid-day operations. The analysis compares operations with future (2005) ambient conditions and cumulative projects to operations with future (2005) ambient conditions, cumulative projects, and the proposed project. The worst-case results, between the p.m peak and Saturday mid-day peak periods, was examined for this analysis. The results of the traffic signal warrant analysis are shown in Table 3L-9:

TABLE 3L-9: TRAFFIC SIGNAL WARRANT SUMMARY

Location	Analysis Results		
	Warrant 1 (Vehicle-Hours)	Warrant 2 (Approach Volume)	Warrant 3 (Total Volume)
FUTURE AMBIENT GROWTH + RELATED PROJECTS ~~ONLY~~			
Lone Hill Ave./Kenoma St.	Succeed	Fail	Succeed
Willow St./Gladstone St.	Succeed	Succeed	Succeed
Valley Center Ave./Gladstone St.	Succeed	Succeed	Succeed
Shellman Ave./Gladstone St.	Fail	Fail	Succeed
FUTURE GROWTH + RELATED PROJECTS + PLUS PROJECT			
Lone Hill Ave./Kenoma St.	Succeed	Fail	Succeed
Willow St./Gladstone St.	Succeed	Succeed	Succeed
Valley Center Ave./Gladstone St.	Succeed	Succeed	Succeed
Shellman Ave./Gladstone St.	Fail	Fail	Succeed

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004.~~ December 2004.

All three warrants at a given intersection must succeed in order for a new traffic signal to be justified. As shown in Table 3L-9, the pattern of signal warrant results is the same with and without traffic contributed by the proposed project. However, at two of the intersections, Willow

Street/Gladstone Street and Valley Center Avenue/Gladstone Street signal warrants are met whether or not traffic from the proposed project is included. This implies that traffic from both ambient growth and cumulative projects in the area causes these warrants to succeed. Because these warrants would be met during the opening and early operations of the proposed project, traffic resulting from the proposed project would contribute to the poor LOS at these intersections. Additionally, although the intersection of Lone Hill Avenue and Kenoma Street does not meet traffic signal warrants, LOS at the intersection would degrade from "E" to "F" with implementation of the proposed project (see Table 3L-8). In order to reduce the impacts of the proposed project at these three intersections to less than significant, the applicant would make a fair-share contribution for the signalization of these intersections, as detailed in mitigation measure, **M-3L.6**.

A detailed explanation and assessment of feasibility of implementation of mitigation for each intersection follows each individual mitigation measure listed below.

Mitigation Measures

M-3L.1 *A traffic signal shall be constructed at the intersection of Lone Hill Avenue and the proposed project site's full access (south driveway).*

M-3L.2 *The applicant shall make a fair-share contribution, as reasonably determined by the City of San Dimas based on a nexus study, for the implementation of a second eastbound exclusive right turn lane at the intersection of Lone Hill Avenue/Route 66. Northbound U-turns onto southbound Lone Hill Avenue would be prohibited.*

Impacts to the Lone Hill Avenue/Route 66 intersection would be minimized by the implementation of an additional exclusive eastbound right turn lane. Such an improvement would require roadway widening and potential purchase of additional right-of-way. Such widening could negatively affect the operations of the on-site parking area of the existing business at the southwest corner of the intersection. With the implementation of mitigation measure **M-3L.2**, traffic impacts to this intersection could be reduced to less than significant. However, because this intersection is within the City of Glendora implementation of these improvements cannot be assured. Therefore, impacts to this intersection, for purposes of this EIR, are considered to remain significant.

M-3L.3 *The applicant shall make fair-share contributions, as reasonably determined by the City of San Dimas based on a nexus study, for future improvements at the following intersections:*

- *Lone Hill Avenue and I-210 Westbound Ramps*
- *Lone Hill Avenue and Auto Centre Drive*

Mitigation of impacts at the Lone Hill Avenue/I-210 Westbound Ramps intersection involves the addition of a second northbound left turn lane. This would require the partial or full reconstruction of the freeway bridge support structure, as the related intersection approach lanes are located primarily underneath the freeway overhead structure. With a fair-share contribution

by the applicant for future improvement to this interchange, as detailed in mitigation measure **M-3L.3**, traffic impacts to the intersection would be less than significant. However, because this intersection is within the City of Glendora implementation of these improvements cannot be assured. The intersection, and the freeway bridge, are also under the control of Caltrans. Acceptance of such improvements by Caltrans, or a potential timeframe for implementation, would be unknown until engineering studies were undertaken. Therefore, impacts to this intersection, for purposes of this EIR, are considered to remain significant.

A modification to the westbound approach and northern receiving lanes of the Lone Hill Avenue/Auto Centre Drive intersection was approved by the City of Glendora in December 2003. The goal of the improvement planned by the City of Glendora is to provide on-street parking along the east side of Lone Hill Avenue, north of Auto Center Drive. The provision of on-street parking would necessitate modifying the westbound approach of the intersection. Operations at the intersection would worsen in order to provide these parking areas. Existing conditions at this intersection and traffic counts were documented in the field by Katz, Okitsu & Associates prior to implementation of this modification. Cursory analysis of this modification indicated that during peak periods, LOS would degrade by at least one letter grade beyond conditions documented in Table 3L-8. V/C and LOS values shown in Table 3L-8 do not reflect traffic conditions with implementation of the proposed on-street parking.

With or without the on-street parking improvement planned by the City of Glendora, the westbound intersection approach would have three lanes. In order to mitigate impacts of the proposed project, this approach would need to be widened to four lanes. This improvement would successfully mitigate impacts of proposed project traffic despite the degradation of LOS caused by the parking space addition proposed by the City of Glendora. Widening of the westbound intersection approach could potentially require the acquisition of additional right-of-way. Such an improvement could negatively affect the operation of the auto sales lot at the northeast corner of the intersection. Final design of improvements for this mitigation measure would need to be determined by an engineering study prior to implementation. With a fair-share contribution by the applicant for future improvement to this intersection, as detailed in mitigation measure **M-3L.3,** traffic impacts to the intersection would be less than significant**.** However, because this intersection is within the City of Glendora implementation of these improvements cannot be assured. Therefore, impacts to this intersection, for purposes of this EIR, are considered to remain significant.

M-3L.4 *The applicant shall make a fair-share contribution, as reasonably determined by the City of San Dimas based on a nexus study, for future improvements at the Arrow Highway/Bonita Avenue/SR-57 Northbound Ramps intersection.*

The mitigation of project impacts at the Arrow Highway/Bonita Avenue/SR-57 Northbound Ramps intersection would involve the reconfiguration of the SR-57 northbound off-ramp at this location. The receiving lanes of this approach lead to the SR-57 northbound on-ramp. A wide raised median exists between the approach lanes and the receiving lanes. This width could potentially be utilized to provide all or some of the width required for the improvement. Widening of the northbound approach beyond this area would require reconstruction of berms on each side of the approach that provide the grade differential between the SR-57 (higher in elevation) and the intersection (lower in elevation) The alignment of the centerline of the

northbound approach of this intersection (the SR-57 ramps) to the southbound approach (Bonita Avenue) with such an improvement would be slightly off-center. The final centerline alignment, and potential need for partial reconstruction of the off-ramp to accommodate this alignment, would need to be determined by an engineering study. With a fair-share contribution by the applicant for future improvement to this intersection, as detailed in mitigation measure **M-3L.4**, traffic impacts to the intersection would be less than significant.

M-3L.5 *The intersection of Lone Hill Avenue and Gladstone Street shall be improved with an additional northbound left turn lane and an additional southbound left turn lane.*

The implementation of an additional northbound left turn lane and an additional southbound left turn lane to the Lone Hill Avenue/Gladstone Street intersection would mitigate the impacts of the proposed project. These improvements would require roadway widening. The necessary improvements match conceptual drawings developed by Crain & Associates in December 2003. This improvement is considered feasible for the proposed project. Impacts of the proposed project to this intersection would be less than significant with implementation of mitigation measure **M-3L.5**.

M-3L-6 *The applicant shall make a fair-share contribution, as reasonably determined by the City of San Dimas based on a nexus study, for future signalization at the Willow Street/Gladston Street, Valley Center Avenue/Gladstone Street, and Lone Hill Avenue/Kenoma Street intersections.*

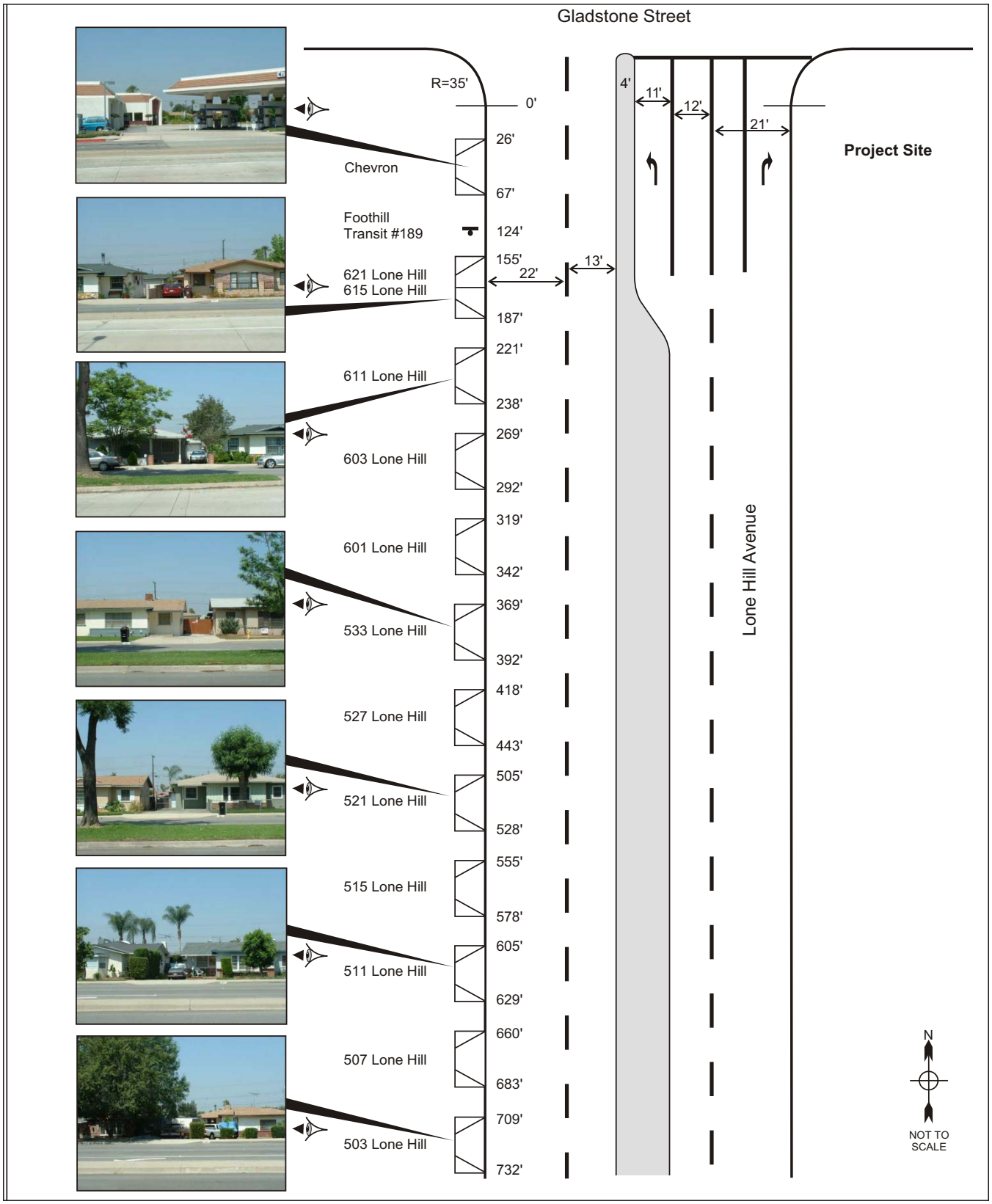
The implementation of traffic signals at the Willow Street/Gladstone Street, Valley Center Avenue/Gladstone Street, and Lone Hill Avenue/Kenoma Street intersections, as detailed in mitigation measure **M-3L.6**, would reduce the impacts of the proposed project to these intersections to less than significant levels. However, because these intersections are within the City of Glendora, implementation of these improvements cannot be assured. Therefore, impacts to these intersections, for purposes of this EIR, are considered to remain significant.

Residual Impacts

~~Impacts to the Lone Hill Avenue/Arrow Highway intersection would remain significant and unavoidable.~~ Impacts to the SR-57 Southbound Off-Ramp/Arrow Highway and Lone Hill Avenue/Arrow Highway intersections would remain significant and unavoidable. Because the intersections of Lone Hill Avenue and Route 66, Lone Hill Avenue and I-210 Westbound Ramps, Lone Hill Avenue and Auto Centre Drive, Willow Street and Gladstone Street, Valley Center Avenue and Gladstone Street, and Lone Hill Avenue and Kenoma Street are located within the City of Glendora and, therefore, outside the jurisdiction of the Lead Agency, the implementation of mitigation measures cannot be assured; for purposes of this EIR, these impacts are considered to remain significant and unavoidable. However, the City of San Dimas and the applicant will pursue implementation of these measures with the City of Glendora.

Impact 3L2: The proposed project would have a less than significant impact on residences located west of the proposed project site along Lone Hill Avenue.

There are currently 16 residential homes located on the west side of Lone Hill Avenue south of Gladstone Street across from the proposed project site (see Figure 3L-27). These homes have direct access (driveways) fronting Lone Hill Avenue. While it is not desirable to have direct



SOURCE: George Dunn Engineering, 2003.

Costco Commercial Complex / 202349 ■

Figure 3L-27

Existing Conditions for Lone Hill Avenue Residences

residential frontage on an arterial highway such as Lone Hill Avenue, this condition has existed for some time in this area. These residents generally have to back out of their driveways onto Lone Hill Avenue to access the existing highway. Lone Hill Avenue is currently a four-lane divided 84-foot wide highway that is designated as a major highway by the City of San Dimas General Plan. Currently, the curb lanes on both sides of Lone Hill Avenue are sufficiently wide to provide for on-street parking. In general the residential driveways along the west side of Lone Hill Avenue provide for parking and access to garages located behind the residences. Based on recent field observations, it appears that several of the garage structures behind the residential properties are not used for parking. In addition, some residents currently back their vehicles into their driveways to make departure onto Lone Hill Avenue easier. The existing median island makes these residential driveways right-turn in and right-turn out only.

The proposed project would include the construction of three driveways on the east side Lone Hill Avenue. It is proposed that the middle driveway be signalized. In order to provide the signalized access on Lone Hill Avenue, the proposed project would make a median island break and create a signalized intersection approximately 500 feet south of Gladstone Street. The driveway would provide full access to the commercial complex and would require the removal of on-street parking for at least 100 feet on the west side of Lone Hill Avenue adjacent to the signalized driveway access. This would directly affect on-street parking and driveway access to the properties between 533 Lone Hill Avenue to the north and 515 Lone Hill Avenue to the south, providing a single southbound left-turn lane.

The residents on Lone Hill Avenue (across from the proposed project site) have an access problem when they leave their driveways and are forced to back out into traffic. The proposed project's traffic would not significantly contribute to the existing problem and is anticipated to have a less than significant impact on the residents of Lone Hill Avenue (across from the proposed project site). This conclusion is supported by the following:

- Anticipated small increase in delay time for residents to exit driveways
- Limited accident history in the area

Observations made for four hours (two hours each during AM and PM peak) indicate that the average number of vehicles exiting residences in a reverse direction is 6-7 vehicles per hour. Delay times for this maneuver varied between 0 and 15 seconds with an average delay time of 5 seconds.

A review of accident history information (from 1999 to present) provided by the County Sheriff Department indicates that 25 accidents were reported for the portion of Lone Hill between Gladstone Street and Overland Court. Nineteen of the accidents occurred at the signalized intersections (Lone Hill Avenue/Gladstone Street and Lone Hill Avenue/Overland Court). The remaining accidents occurred proximate to the unsignalized intersection of Lone Hill Avenue and 5th Street. Of these accidents there were three side-swipes, one head-on collision, one rear-end collision, and one accident involving collision with a stationary object. While the accident reports do not indicate whether any of these accidents were associated with the maneuvers of residents backing out of driveways, it is nevertheless apparent that few, if any accidents, could have involved this maneuver (possibly only the rear-end collision).

The addition of project traffic to existing conditions, including existing delay and accident history attributable to this maneuver, would not result in significant impacts to traffic. The implementation of mitigation measure **M-3L.7** is recommended to improve conditions in the area.

The following five access design options (and three alternatives) have been proposed to provide improved access to the residences located west of the proposed project site (see Figures 3L-28 and 3L-29):

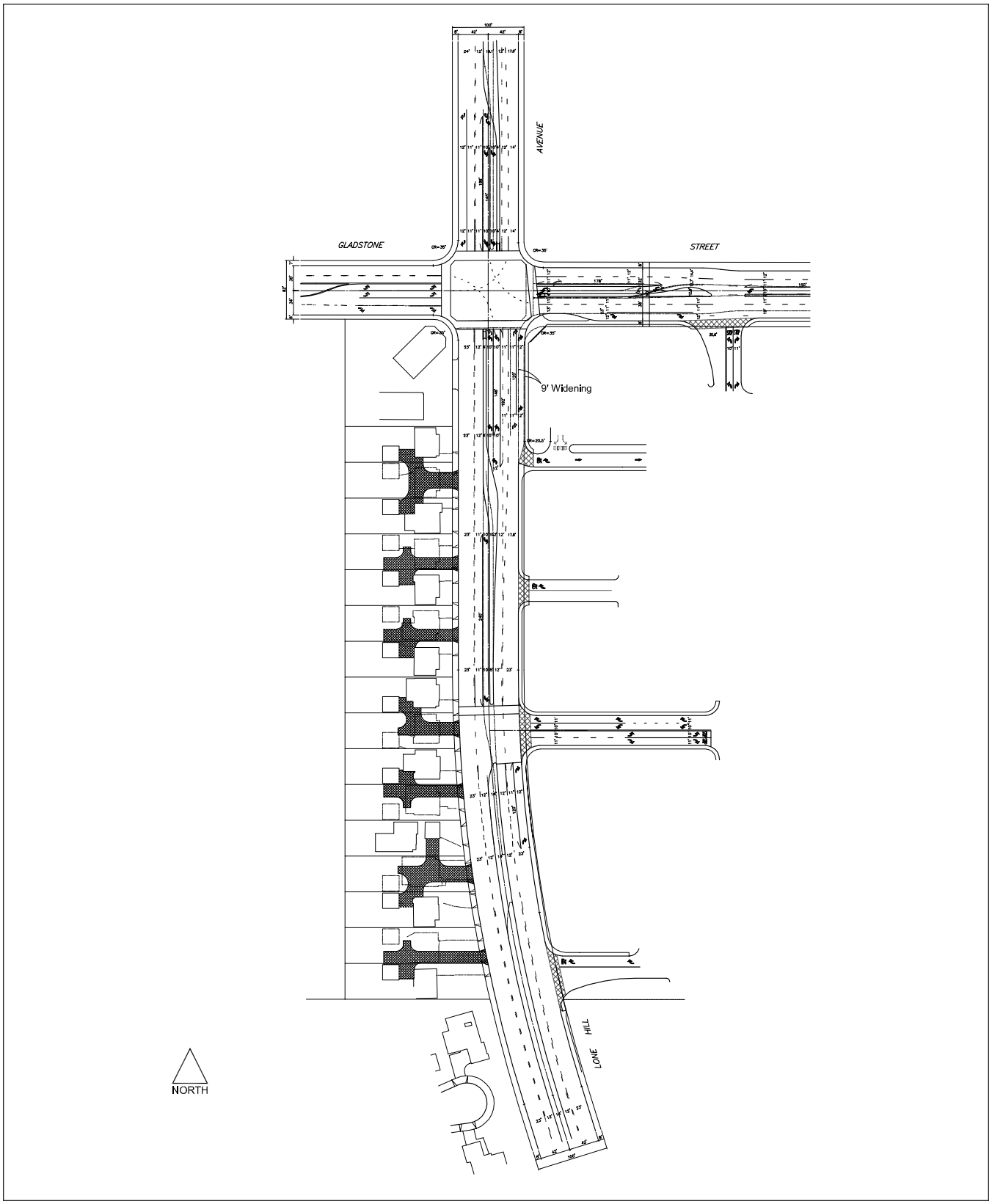
- Option 1: Removal of select properties to provide for 7 hammer head turning areas adjacent to the remaining houses.
- Option 1 (Alternative): Removal of select properties to provide for 6 hammer head turning areas adjacent to the remaining houses.
- Option 2: Elimination of the sidewalk on the west side of Lone Hill Avenue to provide additional roadway width.
- Option 3 (Alternative): Creation of a one-way frontage road along the west side of Lone Hill Avenue to provide for residential driveway access restricted to local residences only.
- Option 3/4: Creation of a one-way frontage road along the west side of Lone Hill Avenue as well as widening along the proposed project site (east side of Lone Hill Avenue) to provide additional lane width.
- Option 3/4 (Alternative): Creation of a one-way frontage road along the west side of Lone Hill Avenue as well as widening along both sides of Lone Hill Avenue to provide additional lane width.
- Option 5: Modification of existing median and half signal alternative where southbound through traffic on Lone Hill Avenue would not stop at driveway signal.

Option 1 would remove select properties and create driveways that would be hammer head turning areas and allow vehicles to drive into the residential driveway at one end of the hammer head turning area and exit at the other end of the hammer head (see Figure 3L-28). This would require the removal of one property (seven total) for every driveway constructed. This option would not assist with access at the proposed signalized intersection of the proposed project's southern driveway.

Under Option 1 the remaining local residents would not need to back out of the reconstructed driveways onto Lone Hill Avenue, but instead would be able to drive out in a forward direction. However, Option 1 would result in the removal of more than half of the residential uses along the west side of Lone Hill Avenue and fail to address access concerns at the newly constructed traffic signal.

Option 1 (Alternative) would seek to make similar changes as Option 1. The primary difference would be the number of hammer head turning areas proposed in Option 1 is 7 and in Option 1 (Alternative) is 6 (see Figure 3L-29).

Option 1 and Option 1 (Alternative) are considered infeasible and are therefore not recommended for further consideration for the following reasons:



SOURCE: Crain & Associates

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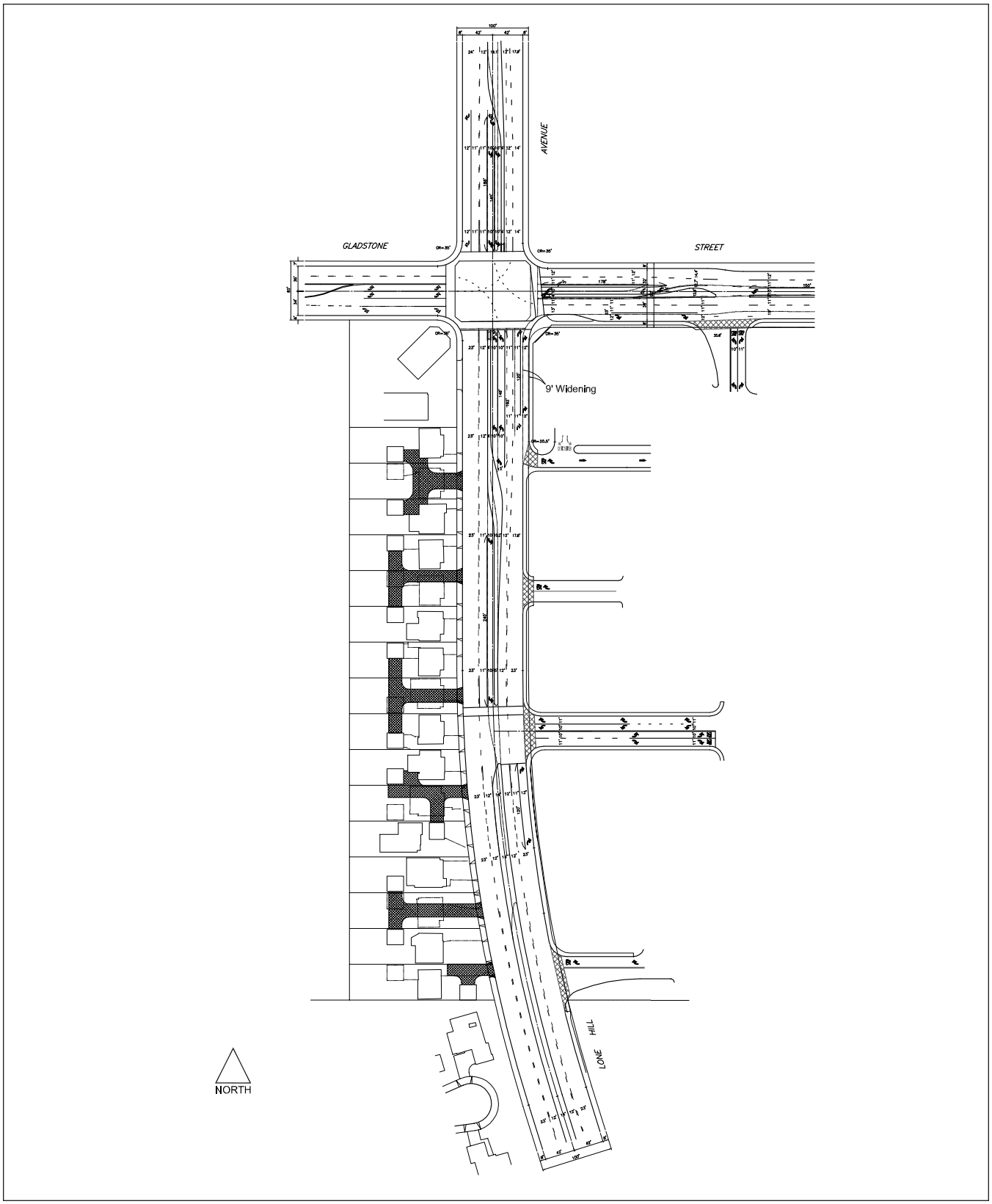
Figure 3L-28

Option 1 - Removal of Selected Properties to Provide Hammer Head Turning Areas



SOURCE: Crain & Associates

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Figure 3L-29

Option 1 (Alternative) - Removal of Selected Properties to Provide Hammer Head Turning Areas

- Opposition expressed by affected residents;
- Difficulty in voluntary acquisition of selected single-family properties; and,
- Failure to address on-street parking needs proximate to the proposed traffic signal.

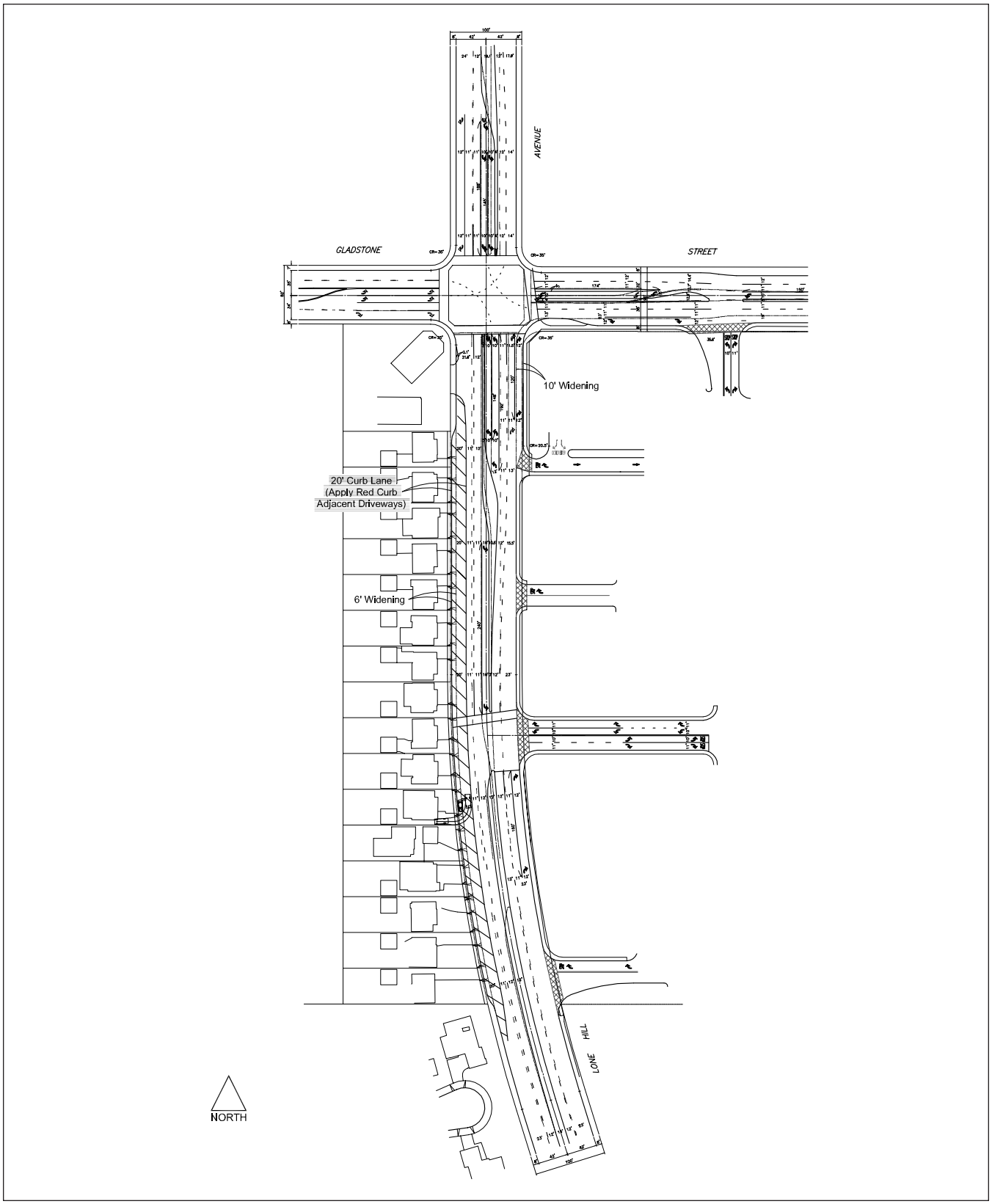
Option 2 would require the removal of the sidewalk on the west side of Lone Hill Avenue and would provide approximately five feet that could be utilized for roadway widening (see Figure 3L-30). If this width was combined with the existing 20-foot curb lane, the total 26 feet could be used to create an additional southbound lane, delineated with either a median or roadway marker that could be used only by residents to access their driveways. The advantage of adding a separate southbound lane to serve only local residents is that traffic entering and exiting residential driveways would be separated from southbound through traffic on Lone Hill Avenue.

The disadvantage of Option 2 is that the removal of the sidewalk and construction of such a lane would require the removal of on-street parking and pedestrian access to and from the existing residences. In addition, this type of treatment near a busy intersection (Lone Hill Avenue and Gladstone Street) is not a standard treatment and would be difficult to sign and stripe to avoid confusion of southbound motorists. Option 2 is considered infeasible and is therefore not recommended for further consideration for the following reasons:

- Eliminates necessary pedestrian access for residents;
- Eliminates all or most street parking for residents;
- Fails to eliminate safety concerns associated with backing into street; and,
- Opposition expressed by affected residents since this option would involve demolition of some residences.

Option 3 (Alternative) would require the creation of a one-way frontage road along the west side of Lone Hill Avenue to provide for residential driveway access restricted to local residences only (see Figure 3L-31). This option is intended to separate residential traffic entering and exiting driveways from southbound traffic on Lone Hill Avenue. This option would not remove pedestrian access to the existing residences but would be able to utilize only the 20-foot curb lane to provide for a through-lane and the frontage road. This option would result in physically separate driveway access from Lone Hill Avenue traffic for some but not all of the 16 affected residences. It may create some confusion for southbound motorists depending on signing and striping and some motorists may use it to by-pass the proposed traffic signal.

Option 3/4 and Option 3/4 (Alternative) are intended to separate residential traffic entering and existing residential driveways on the west side of Lone Hill Avenue from southbound through traffic (see Figures 3L-32 and 3L-33). Widening along the project frontage to provide additional roadway width and shifting north-south lanes towards the west would require widening along the roadway segments both north and south of the proposed project site so that lane transitions could be provided to accommodate striping changes along the proposed project frontage. This additional space may provide sufficient width for a one-way southbound access road with parking. However, such a configuration would be non-standard and difficult to sign and stripe. This option would result in physically separate driveway access from Lone Hill Avenue traffic for some but not all of the 16 affected residences. It may create some confusion for southbound



SOURCE: Crain & Associates

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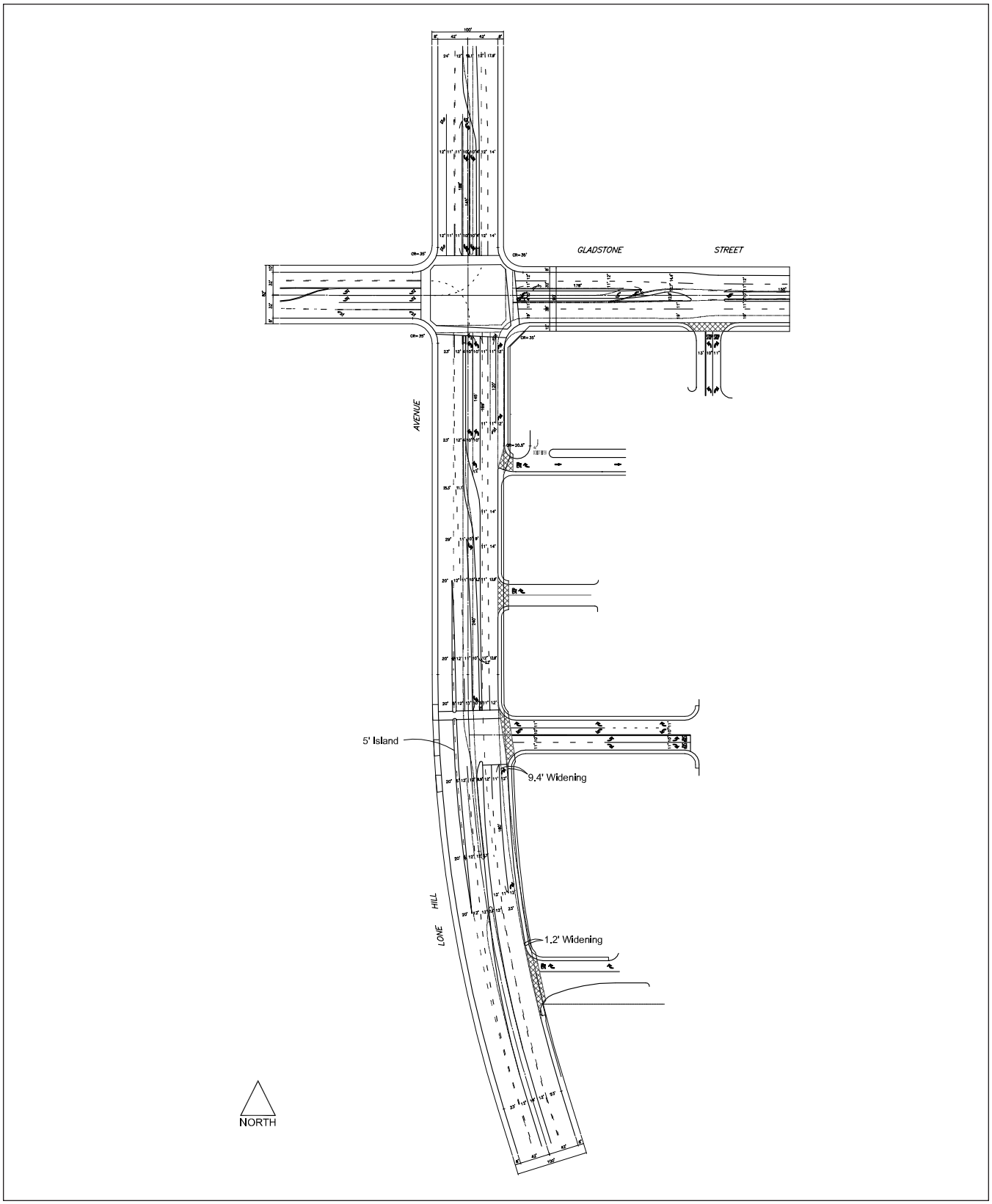
Figure 3L-30

Option 2 - Widening Along West Side of Lone Hill Avenue to Provide Wide Curb Lane



SOURCE: Crain & Associates

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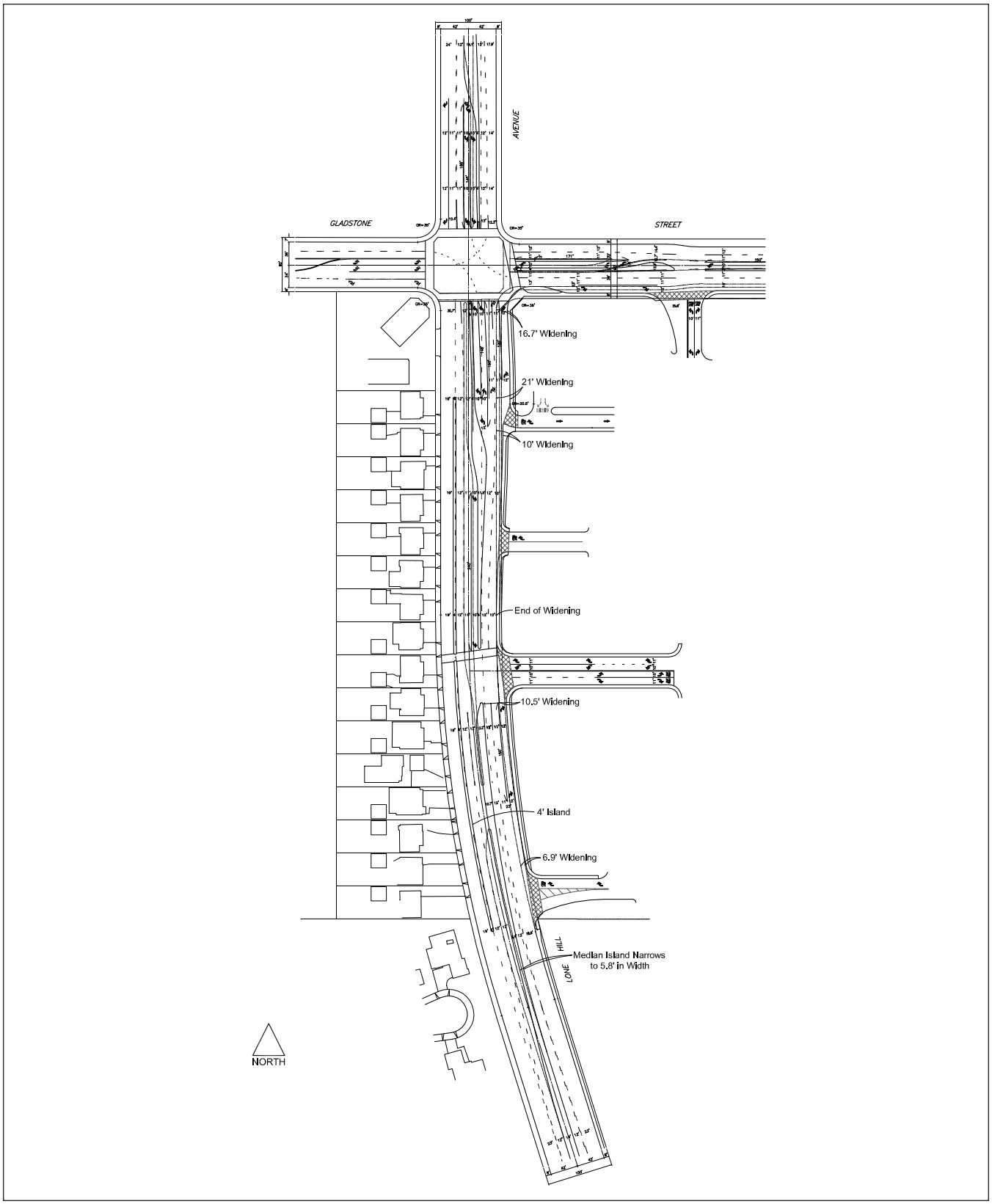
Figure 3L-31

Option 3 (Alternative) - Construction of Partial Frontage Road Opposite Main Project Driveway



SOURCE: Crain & Associates

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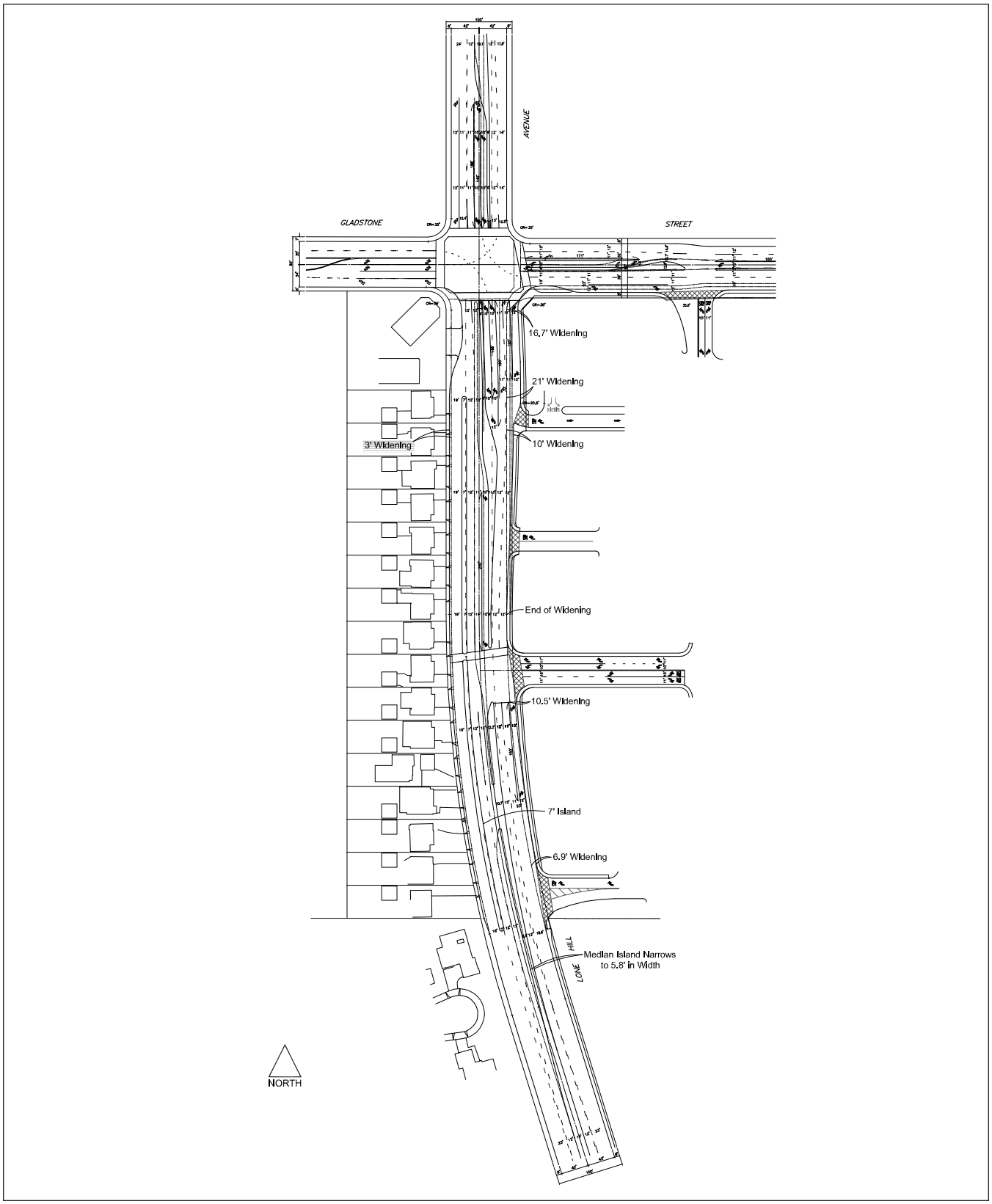
Figure 3L-32

Option 3/4 - Construction of Frontage Road with Widening on East Side of Lone Hill Avenue



SOURCE: Crain & Associates

Figure 3L-33

Option 3/4 (Alternative) - Construction of Frontage Road with Widening on Both Sides of Lone Hill Avenue

motorists depending on signing and striping and some motorists may use it to by-pass the proposed traffic signal.

Option 5 examined an alternative configuration of the main Costco driveway intersection with Lone Hill Avenue (see Figure 3L-34). This option would provide a "half signal" at the intersection, which would control the northbound through movement, the southbound left turn movement, and the westbound (driveway) movement. The southbound through movement would not be controlled by the traffic signal under this option.

This option would include a provision of a free-flow southbound through movement would reduce localized congestion at this intersection. The free-flow movement would reduce the probability of queue spillback of southbound traffic to the Lone Hill/Gladstone intersection. The design would enhance access/egress to and from the site and lessen congestion and delay at this intersection. Improvements to the intersection would not physically affect the frontages of the nearby residential uses. However, this improvement would not change or reduce the conflicts between the residential driveways and the southbound flow of traffic on Lone Hill. Traffic exiting the Costco driveway and making a left turn onto southbound Lone Hill Avenue would be forced to merge with the free-flow southbound traffic movement, which some motorists might find confusing. If adequate merging distance is not provided for westbound left turn onto southbound Lone Hill Avenue there is a chance for increased potential for hazards, specifically rear-end and side-swipe collisions. These accidents could occur where the acceleration lane merges into the southbound lanes of Lone Hill Avenue.

Option 5 is considered infeasible and is not recommended for further consideration for the following reasons:

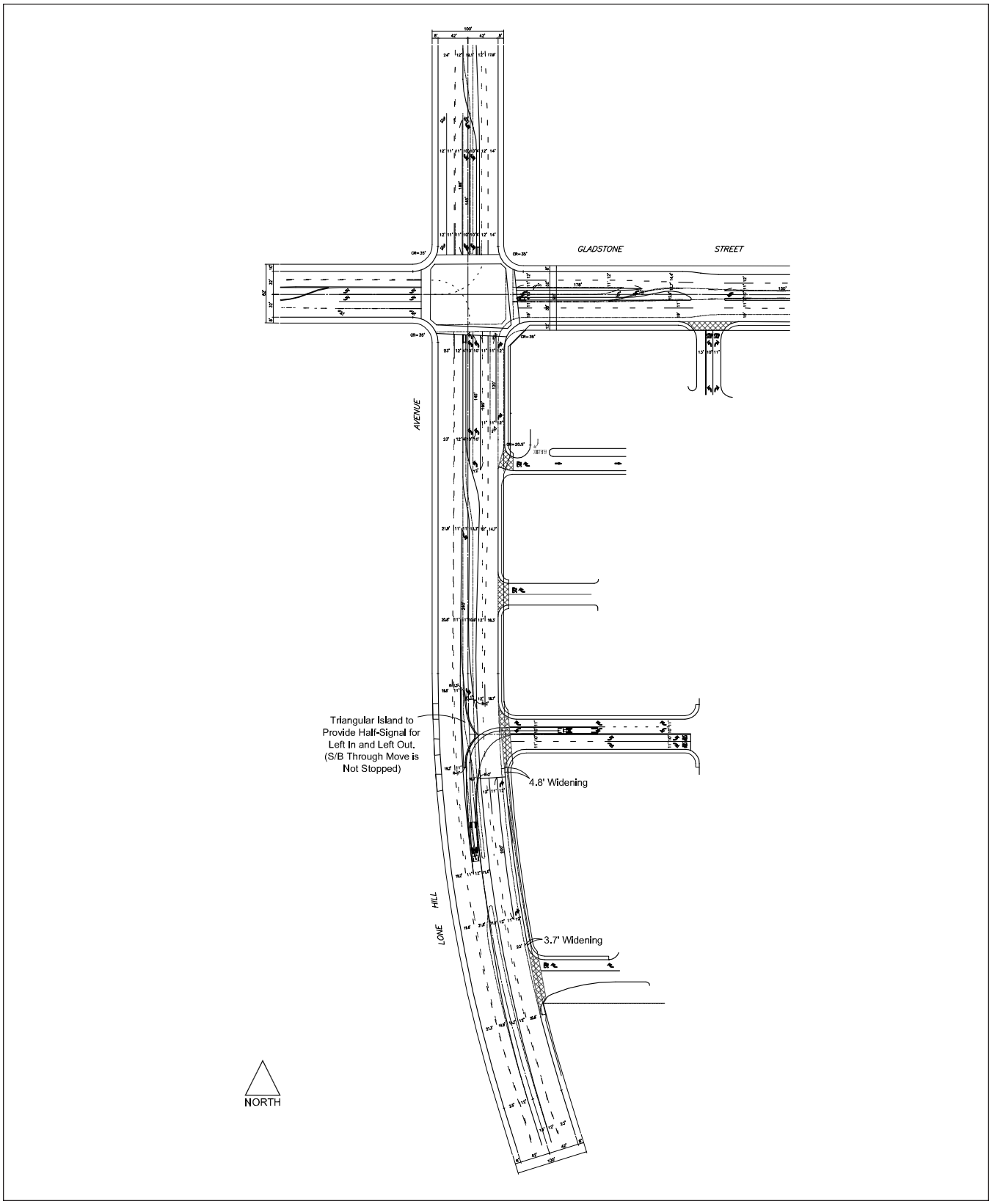
- Fails to eliminate safety concerns associated with backing into street
- Safety concerns associated with non-standard traffic signal design

With rejection of infeasible Option 1, Option 1 (Alternative), Option 2, and Option 5, the proposed mitigation would result in reducing safety concerns and conflicts for affected residents by providing a separated one-way frontage road with parking. Each of the remaining options have slight design variations but are otherwise similar.

The only potential secondary impacts related to safety concerns associated with minimizing possible confusion for southbound through traffic on Lone Hill and with constraining southbound traffic which may try to by-pass the traffic signal. Installation of the frontage road does not constrain future expansion of Lone Hill to six lanes.

Recommended Mitigation Measure

M-3L.7 *It is recommended that Option 3 (Alternative), Option 3/4 or Option 3/4 (Alternative) or other feasible design variations be implemented to provide better access for residences located west of the proposed project site, along Lone Hill Avenue. The City of San Dimas and the applicant shall work directly with these residents to determine the most feasible design option.*



SOURCE: Crain & Associates

Costco Commercial Complex / 202349 ■

Figure 3L-34

Option 5 - Half Signal Alternative (Southbound through traffic on Lone Hill Avenue is not stopped at driveway signal)

Residual Impacts

Impacts would remain less than significant.

Impact 3L3: The proposed project would provide adequate parking supply.

The City of San Dimas does not have a code parking requirement for discount club use. A major shopping center rate of 4.5 parking spaces per 1,000 square feet was used for this type of use since the restaurant uses are less than 20 percent of the total building square footage. Table 3L-10 summarizes parking requirements. As outlined in Table 3L-10, the proposed project would provide 251 more than the anticipated parking spaces needed to serve the proposed project. Therefore, impacts would be less than significant.

TABLE 3L-10: PARKING REQUIREMENTS FOR THE PROPOSED PROJECT

Use	Size (Square Feet)	Rate	Space Required
Costco	148,474	4.5 spaces per 1,000 square feet	668
Fast Food w/Drive-Thru	3,500	4.5 spaces per 1,000 square feet	16
Restaurant	7,000	4.5 spaces per 1,000 square feet	32
Retail (under 20,000 square feet)	8,000	4.5 spaces per 1,000 square feet	36
Retail (under 20,000 square feet)	8,000	4.5 spaces per 1,000 square feet	36
Retail (under 20,000 square feet)	15,000	4.5 spaces per 1,000 square feet	68
Retail (over 20,000 square feet)	30,000	4.5 spaces per 1,000 square feet	135
Total Required	**219,974**	4.5 spaces per 1,000 square feet	**991**
Total Provided		5.6 spaces per 1,000 square feet	**1,242**

Source: RK Engineering Group, Costco *Traffic and Circulation Study (Revised), San Dimas, California,* May 29, 2001.

Mitigation Measure

No mitigation required.

Residual Impacts

Impacts would be less than significant.

Impact 3L4: The proposed project would not substantially increase hazards due to a design feature or incompatible use.

The proposed project will have access to Gladstone Street and Lone Hill Avenue through four access driveways. The access driveways on Gladstone Street, and the northerly access on Lone

Hill Avenue will be right in/out only driveways. The southerly access on Lone Hill Avenue will be a full access driveway. The existing ATSF railroad right-of-way crossing of Gladstone Street is located approximately 800 feet east of the centerline of Lone Hill Avenue. A service driveway is proposed at the east side of the Costco commercial complex to accommodate ingress/egress of service vehicles and deliveries to the proposed project site. The proposed easterly driveway would be located in close proximity to the existing railroad crossing, however, it is proposed to be restricted to right turns in/out only. According to consultation with Metrolink, this driveway is feasible. Implementation of the mitigation measures **M-3L.8** through **M-3L.10** would ensure a less than significant impact.

The proposed project includes the installation of a new traffic signal at the southern project access driveway on Lone Hill Avenue. With implementation of the proposed project, there would be four traffic signals on Lone Hill Avenue within close proximity to each other:

- Lone Hill Avenue/West Project Access Driveway
- Lone Hill Avenue/Gladstone Street (approximately 500 feet to the north)
- Lone Hill Avenue/Glendora Marketplace Driveway (approximately 650 feet to the north)
- Lone Hill Avenue/Auto Centre Drive (approximately 670 feet to the north)

This corridor was analyzed utilizing the SYNCHRO program by Trafficware with the assumption that the intersection of Lone Hill Avenue and the proposed project west access driveway would be signalized. The overall analysis of these four intersections included an examination of approximate queue lengths at the intersection approaches. It is estimated that during the Saturday mid-day peak, occasional queues would develop on northbound Lone Hill Avenue from the Lone Hill Avenue/Gladstone Street intersection that would block the proposed project driveway intersection. Similarly, occasional southbound queues would develop on Lone Hill Avenue from the west project access driveway intersection that could partially block the Lone Hill Avenue/Gladstone Street intersection. Without coordination of the Lone Hill Avenue/Gladstone Street signal with the west project driveway traffic signal, blockages at the Lone Hill Avenue/Gladstone Street intersection are anticipated during peak periods.

The analysis of Lone Hill Avenue signal coordination was based on planning-level data and assumed optimal signal timing. The actual traffic patterns at these intersections cannot be fully known until the project is built and in operation. At that time, an operations-level analysis would need to be conducted. With final coordination of these signals, as detailed in mitigation measure **M-3L.11**, impacts would be reduced to less than significant.

Mitigation Measures

M-3L.8 *With the exception of the southerly full access driveway along Lone Hill Avenue, a median shall be constructed fronting access driveways off of Gladstone Street and Lone Hill Avenue to limit the driveways to right turn in/out only.*

M-3L.9 *The service driveway proposed at the east side of the proposed project site shall be restricted to right-turn only. Furthermore, a fence shall be built between the proposed Costco site and the railroad right-of-way.*

M-3L.10 *The applicant shall submit a truck routing plan detailing the routes delivery*

vehicles will take for entering and exiting the proposed commercial complex.

M-3L.11 *The proposed project traffic signal at the intersection of the west access driveway and Lone Hill Avenue shall be coordinated with the signal at the intersection of Lone Hill Avenue and Gladstone Street. The final coordination plan will be based on an assessment of traffic operations at these intersections, which should be conducted after the opening of the project.*

Residual Impacts

Impacts would be less than significant.

Impact 3L5: The proposed project would have adequate emergency access.

The proposed project design would be in compliance with City planning requirements regarding emergency vehicle access. Therefore, no impacts are anticipated.

Mitigation Measure

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact 3L6: The proposed project would significantly impact traffic in the vicinity of schools.

The Gladstone Elementary School, located west of Lone Hill Avenue, and south of Gladstone Street, is expected to experience increased traffic on Gladstone Street as a result of ambient growth, cumulative development and the proposed project. Much of the increased traffic can be attributed to approved projects in the vicinity of the proposed project site. The proposed project is expected to contribute approximately ~~14~~ 30 weekday AM peak hour project trips and ~~29~~ 78 weekday PM peak hour project trips between Shellman Avenue and Lone Hill Avenue along Gladstone Street adjacent to the school. Other approved projects and ambient growth in the San Dimas and Glendora areas would further increase traffic volumes on Gladstone Street in the vicinity of Gladstone Elementary School. Previous projects in the City of Glendora, including the Glendora Marketplace, provided several improvements at the school site. These improvements included an improved drop-off/pick-up area.

There are existing controlled crossings at the Lone Hill Avenue/Gladstone Street intersection (traffic signal) and Valley Center Avenue/Gladstone Street intersection (four-way stop sign). However, the relatively narrow width of Gladstone Street and substandard conditions along the south side of Gladstone Street, in the vicinity of Gladstone Elementary School, could pose safety concerns during student drop-off and pick-up. The intersection of Valley Center Avenue and Gladstone Street currently meets traffic signal warrants for existing conditions. Although future

increases in traffic are anticipated in the vicinity of the Gladstone Elementary School, the existing/planned traffic controls would facilitate movements into and out of the school. Additionally, the implementation of mitigation measure **3L.12** would further reduce impacts of existing and cumulative traffic as well as the proposed project to Gladstone Elementary School to less than significant.

Willow Elementary is located south of Gladstone Street on Willow Street, approximately ¼-mile west of Gladstone Elementary School. As stated in Impact 3L1, implementation of the proposed project would contribute to existing poor LOS at the intersection of Willow Street and Gladstone Street. With a fair-share contribution for future signalization of this intersection, as detailed in mitigation measure **M-3L.6**, impacts to this intersection would be reduced to less than significant.

Shull Elementary School is located in the project vicinity at the southwest corner of Auto Centre Drive and Allen Avenue at Amelia Avenue. The proposed project is anticipated to have minimal impact on this school site since proposed project traffic is generally not expected to traverse Amelia Avenue south of Auto Centre Drive. As shown in Table 3L-8, the intersection of Auto Centre Drive and Allen Avenue at Amelia Avenue would not be significantly impacted by project traffic.

Sutherland Elementary School is located on Amelia Avenue near the intersection with Baseline Road north of Shull Elementary School. The proposed project is also anticipated to have minimal impact on this school site since proposed project traffic is generally not expected to utilize Amelia Avenue. Because the two intersections nearest this location, the Amelia Avenue/Auto Center Drive/Allen Avenue and Amelia Avenue/Route 66 intersections, were shown to have less than significant impacts with implementation of the proposed project (see Table 3L-8), impacts to traffic at this location would also be considered less than significant.

The proposed project would, therefore, not significantly increase traffic in the vicinity of Shull Elementary School and Sutherland Elementary School. Implementation of mitigation measures **M-3L.6** and **M-3L.12** would reduce impacts to traffic in the vicinity of Willow Elementary School and Gladstone Elementary School, respectively, to less than significant levels. However, these intersections are located within Glendora outside the jurisdiction of the Lead Agency, therefore, implementation of mitigation measures cannot be assured. As a result, impacts to these intersections would remain significant and unavoidable for purposes of this EIR.

Mitigation Measure

Refer to mitigation measure **M-3L.6.**

M-3L.12 *With the cooperation and approval of the City of Glendora, the applicant shall make a fair share contribution, as reasonably determined by the City of San Dimas based on a nexus study, for the construction of a traffic signal at the Valley Center Avenue/Gladstone Street intersection, as well as for the widening and re-striping of Gladstone Street in the vicinity of Gladstone Elementary School to provide for one through-lane, a left-turn lane and parking along the south side of Gladstone Street.*

Residual Impacts

Because the intersections of Valley Center Avenue/Gladstone Street and Willow Street/Gladstone Street are located within the City of Glendora and, therefore, outside the jurisdiction of the Lead Agency, the implementation of mitigation measures cannot be assured; for purposes of this EIR, these impacts are considered to remain significant and unavoidable. However, the City of San Dimas and the applicant will pursue implementation of these measures.

Impact 3L7: With mitigation, the proposed project would not exceed either individually or cumulatively the established LOS standards at CMP facilities in the project area.

The CMP was created statewide as a result of Proposition 111 and has been implemented locally by the LACMTA. The CMP for the County requires that the traffic impact of individual development projects of potentially regional significance be analyzed. A specific system of arterial roadways plus all freeways comprises the CMP system; 164 intersections are currently identified for monitoring on the system. This section describes the project-related analysis of the CMP system. The analysis has been conducted according to the guidelines set forth in CMP.

Per CMP Transportation Impact Analysis (TIA) Guidelines, a traffic impact analysis is conducted:

- At CMP arterial monitoring intersections, including freeway on-ramps or off-ramps, where the proposed project will add 50 or more trips during either AM or PM weekday peak hours.

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

The nearest CMP routes to the proposed project site are the I-210 Freeway east of Sunflower Avenue and Arrow Highway east of I-210. The project will add a maximum of ~~36~~ 24 trips to the I-210 east of Sunflower Avenue during the weekday AM peak period and a maximum of ~~86~~ 61 trips during the weekday PM peak period. These volumes are bidirectional. Based on CMP data from Caltrans Annual Daily Traffic reports (AADT), an increase of ~~86~~ 61 vehicles is a volume increase of 0.4~~62~~%. The significant impact threshold for CMP facilities is an increase of 2% or more in V/C. Impacts to the I-210 Freeway are, therefore, considered less than significant.

Impacts to Arrow Highway would occur at the Arrow Highway/Bonita Avenue/SR-57 Northbound Ramps intersection during the PM peak and Saturday mid-day periods. Impacts to this intersection are discussed in Impact 3L1. Mitigation to this intersection would involve the reconfiguration of the SR-57 northbound off-ramp. However, with a fair-share contribution by the applicant for future improvement to this intersection, as detailed in mitigation measure **M-3L.4**, impacts of the proposed project to this CMP facility would be less than significant.

Mitigation Measure

Refer to mitigation measure **M-3L.4**.

Residual Impacts

Impacts would be less than significant.

Impact 3L8: Cumulative development would significantly impact area traffic.

Cumulative project traffic growth due to specific known development projects in the surrounding area is included in the analysis of impacts of the proposed project to signalized intersections, as discussed in Impact 3L1. Currently, several area projects are located within two miles of the project site that could pose a cumulative impact to area traffic conditions. These projects are listed in Table 3L-5. Table 3L-8 shows the cumulative impacts to several study intersections that without mitigation would result in a cumulative significant impact. With the exception of impacts to the intersection of Lone Hill Avenue and Arrow Highway, all cumulative impacts to signalized intersections could be reduced to less than significant levels with the implementation of mitigation measures **M-3L.1** through **M-3L.5**. However, the intersections of Lone Hill Avenue and Route 66, Lone Hill Avenue and I-210 Westbound Ramps, and Lone Hill Avenue and Auto Centre Drive are located within the city of Glendora, therefore, implementation of mitigation measures cannot be assured. As a result, impacts to these intersections would remain significant.

As discussed in Impact 3L1, the unsignalized intersections of Willow Street and Gladstone Street, Valley Center Avenue and Gladstone Street, and Lone Hill Avenue and Kenoma Street would be significantly impacted by the proposed project without mitigation. Implementation of mitigation measures **M-3L.6** and **M-3L.12** would reduce impacts at these unsignalized intersections to less than significant levels. However, these intersections are located within the City of Glendora, therefore, implementation of mitigation measures cannot be assured. As a result, impact to these intersections are considered to remain significant for purposes of this EIR.

As shown under Impact 3L7, the proposed project and future projects would cumulatively exceed the CMP LOS standards at the Arrow Highway/Bonita Avenue/SR-57 Northbound Ramps intersection without implementation of mitigation. However, with a fair-share contribution by the applicant for future improvement to this intersection, as detailed in mitigation measure **M-3L.4**, impacts of the proposed project to this CMP facility would be less than significant.

Therefore, with the implementation of mitigation measures **M-3L.4** and **M-3L.5**, cumulative impacts to the following intersections would be reduced to less than significant levels:

- Lone Hill Avenue/Gladstone Street (signalized)
- Arrow Highway/Bonita Avenue/SR-57 Northbound Ramps (signalized)

The intersections of Lone Hill Avenue and Route 66, Lone Hill Avenue and I-210 Westbound Ramps, Lone Hill Avenue and Auto Centre Drive, Willow Street and Gladstone Street, Valley Center Avenue and Gladstone Street, and Lone Hill Avenue and Kenoma Street are located within Glendora outside the jurisdiction of the Lead Agency, therefore, implementation of mitigation measures cannot be assured. As a result, impacts to these intersections would remain

significant and unavoidable for purposes of this EIR.

Impacts to the intersections of ~~Lone Hill Avenue and Arrow Highway~~SR-57 Southbound Off-Ramp/Arrow Highway and Lone Hill Avenue/Arrow Highway would remain significant and unavoidable.

Mitigation Measure

Refer to mitigation measures **M-3L.1** through **M-3L.6 and M-3L.12.**

Residual Impacts

~~Impacts to the Lone Hill Avenue/Arrow Highway intersection would remain significant and unavoidable.~~ Impacts to the SR-57 Southbound Off-Ramp/Arrow Highway and Lone Hill/Arrow Highway intersections would remain significant and unavoidable. Because the intersections of Lone Hill Avenue and Route 66, Lone Hill Avenue and I-210 Westbound Ramps, Lone Hill Avenue and Auto Centre Drive, Willow Street and Gladstone Street, Valley Center Avenue and Gladstone Street, and Lone Hill Avenue and Kenoma Street are located within the City of Glendora and, therefore, outside the jurisdiction of the Lead Agency, the implementation of mitigation measures cannot be assured; for purposes of this EIR, these are considered to remain significant and unavoidable. However, the City of San Dimas and the applicant will pursue implementation of these measures.

Other CEQA Considerations

This section adds the results of the traffic study to the list of significant unavoidable impacts identified in the ~~August~~ July, 2004 ~~23, 2003 Draft~~ FEIR and the ~~March 5, 2004~~ Recirculated Transportation/Traffic Section.

SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL IMPACTS

- Operation of the proposed project would cause significant unavoidable traffic impacts to the ~~Lone Hill Avenue/Arrow Highway intersection~~Lone Hill Avenue/.Arrow Highway and SR-57 Southbound Off-Ramp/Arrow Highway intersections.

  Operation of the proposed project would cause significant unavoidable traffic impacts at the ~~following~~ intersections below. ~~:~~ Mitigation is available and feasible at each location. Because these intersections are located within the City of Glendora and, therefore, outside the jurisdiction of the Lead Agency, the implementation of mitigation measures cannot be assured; for purposes of this EIR, these are considered to remain significant and unavoidable. However, the City of San Dimas and the applicant will pursue implementation of these measures:

-

  - Lone Hill Avenue/Route 66
  - Lone Hill Avenue/I-210 Westbound Ramps
  - Lone Hill Avenue/Auto ~~Center~~ Centre Drive
  - Willow Street/Gladstone Street
  - Valley Center Avenue/Gladstone Street
  - Lone Hill Avenue/Kenoma Avenue

  ~~Because these intersections are located within the City of Glendora and, therefore, outside the jurisdiction of the Lead Agency, the implementation of mitigation measures cannot be assured; for purposes of this EIR, these are considered to remain significant and unavoidable. However, the City of San Dimas and the applicant will pursue implementation of these measures.~~

Appendix A

This appendix presents the trip generation methodology for the re-analysis of Project traffic utilized in the revised Revision II Transportation/Traffic section. Modifications to the trip generation table included the use of updated trip generation rates (7th Edition, Trip Generation), and internal trip capture rates. The internal trip capture rates avoid the over-counting of trips from individual uses (retail, gas station, discount store) that would occur under standard calculations. As visitors to the site would likely visit multiple uses, trip capture rate calculations established by ITE were utilized.

The table below provides the trip generation calculation table for the revised analysis.

TRIP GENERATION RATES												
Land Use	Intensity	Units	**Daily Trips**	**Weekday AM Total**	Weekday AM IN	Weekday AM OUT	**Weekday PM Total**	Weekday PM IN	Weekday PM OUT	**Saturday Peak Total**	Saturday Peak In	Saturday Peak Out
Free-Standing Discount Store (ITE Code 815)	149.705	KSF	56.63	0.99	0.65	0.34	4.24	2.12	2.12	7.66	3.91	3.75
Gas Station (ITE Code 844)	12.000	Fuel Pos.	168.56	12.27	6.26	6.01	14.56	7.43	7.13	14.56	7.43	7.13
Shopping Center (ITE Code 820)	53.000	KSF	42.92	1.03	0.63	0.40	3.74	1.80	1.94	4.97	2.58	2.39
Quality Restaurant (ITE Code 831)	7.000	KSF	89.95	0.81	0.42	0.39	7.49	5.02	2.47	10.82	6.38	4.44
Fast Food with Drive-thru (ITE Code 834)	3.500	KSF	496.12	49.86	25.43	24.43	33.48	17.41	16.07	58.91	30.04	28.87
FORECAST TRIP GENERATION												
Land Use	Intensity	Units	**Daily Trips**	**Weekday AM Total**	Weekday AM IN	Weekday AM OUT	**Weekday PM Total**	Weekday PM IN	Weekday PM OUT	**Saturday Peak Total**	Saturday Peak In	Saturday Peak Out
PROPOSED LAND USES												
Free-Standing Discount Store	149.705	KSF	8,478	0	0	0	635	318	318	1,147	585	562
Gas Station	12.000	Fuel Pos.	2,023	147	75	72	175	89	86	175	89	86
Shopping Center *	53.000	KSF	2,725	0	0	0	237	114	123	316	164	151
Quality Restaurant	7.000	KSF	0	6	3	3	0	0	0	0	0	0
Fast Food with Drive-thru	3.500	KSF	0	175	89	86	0	0	0	0	0	0
Subtotal - Gross Trips			**13,226**	**327**	167	160	**1,047**	521	527	**1,637**	838	799
INTERNAL TRIP REDUCTIONS (based on ITE Trip Generation Handbook)												
Disc. Store to Gas Stn./Shop. Ctr. (calc. rates)			32.11%	0.00%			22.46%			30.84%		
Free-Standing Discount Store			-2,722	0	0	0	-143	-71	-71	-354	-180	-173
Gas Station			-649	0	0	0	-39	-20	-19	-54	-27	-26
Shopping Center			0	0	0	0	-53	-26	-28	-97	-51	-47
Subtotal - Minus Internal Trips			**9,854**	**327**	167	160	**812**	404	408	**1,132**	580	553
PASS-BY TRIP REDUCTIONS (based on ITE, AM% - PM% - Saturday%)												
Pass-by trips, discount store (0% - 17.2% - 22.8%)			-1,151	0	0	0	-85	-42	-42	-181	-92	-89
Pass-by trips, gas station (58% - 42% - 42%)			-1,011	-85	-44	-42	-57	-29	-28	-51	-26	-25
Pass-by trips for shopping ctr. uses (0% - 34% - 26%)			0	0	0	0	-63	-30	-33	-57	-30	-27
GRAND TOTAL												
Total Net Trips			**7,692**	**242**	123	119	**608**	302	306	**844**	432	412

** Shopping center rate not utilized for a.m. peak trip generation, as retail uses would not be open during that time period. Individual restaurant rates utilized for the restaurant uses that would be open in the a.m peak hour.*

Under the revised analysis, the Project would generate a total of 242 a.m. peak period trips, 608 pm. peak period trips, and 844 Saturday mid-day peak period trips.

Appendix B

This appendix to the Transportation/Traffic section presents the traffic analysis as originally included in the Final EIR with a correction factor for clearance time within the Intersection Capacity Utilization (ICU) methodology for study intersection level of service (LOS). The primary differences between the analysis presented in the modified Transportation/Traffic and the analysis presented within this Appendix is summarized below.

SUMMARY

The modifications to the Transportation/Traffic section are based on the following:

- A fix to the Intersection Capacity Utilization (ICU) method analysis – a 10% signal cycle allowance for "clearance time". This time is provided for all delay between signal cycles - yellow signal time, all-red signal time, and inherent vehicle startup/slowdown delay. Such an allowance was not included in the calculations within the Final EIR.

- An updated trip generation analysis, which included the use of the ITE Trip Generation, *7th Edition* updated trip generation rates. The analysis also included pass-by trip generation rates and internal trip capture rates. Pass-by trip generation rates were included in the analysis for the Final EIR. Internal trip capture rates were included in the revised analysis, as the lack of such a capture rate could lead to an overstatement of project traffic on surrounding roadways.

The alternate analysis summarized within this Appendix is based on this single correction to the Traffic analysis:

- A fix to the Intersection Capacity Utilization (ICU) method analysis - a 10% signal cycle allowance for "clearance time". No modifications to project trip generation calculations were undertaken for this analysis.

The analysis discussed within this Appendix utilizes a trip generation methodology that remains the same as that analyzed in the July, 2004 FEIR. This includes the use of rates and pass-by trip reduction rates from the 6th Edition of *Trip Generation*.

Table A-1 summarizes the significant impacts and mitigation measures identified in the modified Transportation/Traffic Section of the EIR:

TABLE A-1: IMPACTS AND MITIGATIONS WITH ICU AND TRIP GENERATION CHANGES

Intersection	Impact(s) Under Previous Analysis	Impact(s) Under New Analysis	Mitigation Measure	Same Mitig. as Previous?	Impact Sig. After Mitig?	Impact Sig. After Mitig, Final EIR?	Jurisdiction
1. Lone Hill/Route 66	PM, Sat	PM, Sat	2nd Eb Right Turn Lane	Yes	No	No	Glendora
5. Lone Hill/210W Ramps	AM, PM	AM *, PM	2nd Nb Left Turn Lane	Yes	No	No	Glendora
7. Lone Hill/Auto Centre	PM, Sat	PM, Sat	Add'l wb left turn lane (two lefts & two rights result)	Yes	No	No	Glendora
16. Lone Hill/Gladstone	Sat	PM, Sat	2nd nb and sb left turn lane, per Crain dwgs.	Yes	No	No	Glendora / San Dimas
18. Lone Hill/Arrow	PM	PM, Sat	no feasible mitigation measure exists	Yes	**Yes**	Yes	San Dimas
19. SR57Sb Off-Ramp/Arrow	none	Sat	no feasible mitigation measure exists	**No**	**Yes**	No	San Dimas
21. Arrow/Bonita/SR57N Ramps	PM, Sat	Sat	Add'l nb (ramp) left turn lane	Yes	No	No	San Dimas

** This represents a new impact, under the analysis without related projects. A peak-period impact at this location was already defined in the FEIR.*

The table below summarizes the significant impacts and mitigation measures identified in the alternate analysis:

TABLE A-2: IMPACTS AND MITIGATIONS WITH ICU CHANGES ONLY

Intersection	Impact(s) Under Previous Analysis	Impact(s) Under New Analysis	Mitigation Measure	Same Mitig. as Previous?	Impact Sig. After Mitig?	Impact Sig. After Mitig, Final EIR?	Jurisdiction
1. Lone Hill/Route 66	PM, Sat	PM*, Sat	2nd Eb Right Turn Lane	Yes	No	No	Glendora
5. Lone Hill/210W Ramps	AM, PM	AM*, PM	2nd Nb Left Turn Lane	Yes	No	No	Glendora
6. Lone Hill/210E Ramps	none	PM	2nd Sb Left Turn Lane	**No**	No	No	Glendora
7. Lone Hill/Auto Centre	PM, Sat	PM, Sat	Add'l wb left turn lane (two lefts & two rights result)	Yes	**Yes**	No	Glendora
9. SR-57 Nbd. Off-Ramp / Auto Centre	none	PM	Nb right to left/right	**No**	No	No	San Dimas
16. Lone Hill/Gladstone	Sat	PM, Sat	2nd nb and sb left turn lane, per Crain dwgs. (add'l added - wb assumed right to thru/right, per Crain)	**No (add'l)**	**Yes, Impact at C PM ; Sat no impact**	No	Glendora / San Dimas
18. Lone Hill/Arrow	PM	PM, Sat	no feasible mitigation measure exists	Yes	**Yes**	Yes	San Dimas
19. SR57Sb Off-Ramp/Arrow	none	Sat	no feasible mitigation measure exists	**No**	**Yes**	No	San Dimas
20. Arrow/N.Village Ct.	none	Sat	no feasible mitigation measure exists	**No**	**Yes**	No	San Dimas
21. Arrow/Bonita/SR57N Ramps	PM, Sat	PM, Sat	Add'l nb (ramp) left turn lane	Yes	No	No	San Dimas

** This represents a new impact, under the analysis without related projects. A peak-period impact at this location was already defined in the FEIR.*

The level of service and significant impact tables from the main Transportation/traffic section are utilized to examine modifications to the traffic study utilizing adjustment to clearance time in the ICU method. No other adjustments were made for this analysis. These tables are presented in the following sections of this Appendix. Added text within the tables is noted with <u>underlined text</u>, and deleted text is noted with ~~strikeout text~~.

EXISTING CONDITIONS

Table A-3 provides a summary of the level of service at the study intersections, under existing conditions, with the ICU methodology adjustment. These V/C & LOS values match those analyzed in the revised Transportation/Traffic section.

TABLE A-3: EXISTING LEVELS OF SERVICE DURING THE PEAK HOURS (2004)

	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak**	
Intersection Location	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Lone Hill Ave./Route 66	~~0.693~~0.793	~~B~~C	~~0.758~~0.858	~~C~~D	-	-
2. Amelia Ave./Route 66	~~0.454~~0.554	A	~~0.489~~0.589	A	-	-
3. Lone Hill Ave./Kenoma St. *	31.1 sec.	D	>100 s.	F	-	-
4. Lone Hill Ave./Petunia St.	~~0.465~~0.565	A	~~0.494~~0.594	A	-	-
5. Lone Hill Ave./I-210 Wb ramps	~~0.874~~0.974	~~D~~E	~~1.257~~1.357	F	-	-
6. Lone Hill Ave./I-210 Eb ramps	~~0.608~~0.708	~~B~~C	~~0.725~~0.825	~~C~~D	-	-
7. Lone Hill Ave./Auto Centre Dr.	~~0.490~~0.590	A	~~0.769~~0.869	~~C~~D	~~0.657~~0.757	~~B~~C
8. Walmart Dwy./Auto Centre Dr.	~~0.311~~0.411	A	~~0.451~~0.551	A	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	~~0.391~~0.491	A	~~0.571~~0.671	~~A~~B	-	-
10. Amelia Ave./Auto Centre Dr.-Allen	~~0.348~~0.448	A	~~0.378~~0.478	A	-	-
11. Lone Hill Ave./Gl. Marketplace Dwy.	~~0.271~~0.371	A	~~0.408~~0.508	A	~~0.484~~0.584	A
12. Sunflower St./Gladstone St.	~~0.392~~0.492	A	~~0.408~~0.508	A	-	-
13. Willow St./Gladstone St. *	10.0 sec.	B	11.4 sec.	B	-	-
14. Valley Center Ave./Gladstone St. *	10.5 sec.	B	13.5 sec.	B	-	-
15. Shellman Ave. /Gladstone St. *	11.1 sec.	B	12.2 sec.	B	11.1 sec.	B
16. Lone Hill Ave./Gladstone St.	~~0.378~~0.478	A	~~0.514~~0.614	B	~~0.757~~0.857	~~C~~D
17. Amelia Ave.-Pearlanna/Gladstone St.	~~0.349~~0.449	A	~~0.427~~0.527	A	~~0.290~~0.390	A
18. Lone Hill Ave./Arrow Hwy.	~~0.496~~0.596	A	~~0.563~~0.663	~~A~~B	~~0.502~~0.602	~~A~~B
19. Arrow Hwy./Sb SR-57 Off-Ramp	~~0.494~~0.594	A	~~0.591~~0.691	~~A~~B	~~0.696~~0.796	~~B~~C
20. Arrow Hwy./North Village Ct.	~~0.368~~0.468	A	~~0.477~~0.577	A	~~0.595~~0.695	~~A~~B
21. Arrow Hwy./Bonita Ave./SR-57 Nb ramps	~~0.717~~0.817	~~C~~D	~~0.938~~1.038	~~E~~F	~~0.714~~0.814	~~C~~D

** Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion.*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004.~~December 2004.

FUTURE (YEAR 2005) GROWTH-ONLY TRAFFIC CONDITIONS

Table A-4 provides a summary of the level of service at the study intersections, under future ambient growth (year 2005) conditions, with the ICU methodology adjustment. These V/C & LOS values match those analyzed in the revised Transportation/Traffic section.

TABLE A-4: YEAR 2005 AMBIENT GROWTH TRAFFIC CONDITIONS

	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak**	
Intersection Location	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Lone Hill Ave./Route 66	~~0.700~~0.800	~~C~~D	~~0.766~~0.866	~~C~~D	-	-
2. Amelia Ave./Route 66	~~0.459~~0.559	A	~~0.494~~0.594	A	-	-
3. Lone Hill Ave./Kenoma St. *	32.1 sec.	D	>100 sec.	F	-	-
4. Lone Hill Ave./Petunia St.	~~0.470~~0.570	A	~~0.499~~0.599	A	-	-
5. Lone Hill Ave./I-210 Wb ramps	~~0.882~~0.982	~~D~~E	~~1.270~~1.370	F	-	-
6. Lone Hill Ave./I-210 Eb ramps	~~0.614~~0.714	~~B~~C	~~0.732~~0.832	~~C~~D	-	-
7. Lone Hill Ave./Auto Centre Dr.	~~0.495~~0.595	A	~~0.777~~0.877	~~C~~D	~~0.663~~0.763	~~B~~C
8. Walmart Dwy./Auto Centre Dr.	~~0.314~~0.414	A	~~0.456~~0.556	A	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	~~0.395~~0.495	A	~~0.576~~0.676	~~A~~B	-	-
10. Amelia Ave./Auto Centre Dr.-Allen	~~0.352~~0.452	A	~~0.378~~0.478	A	-	-
11. Lone Hill Ave./Gl. Marketplace Dwy.	~~0.274~~0.374	A	~~0.412~~0.512	A	~~0.489~~0.589	~~B~~A
12. Sunflower St./Gladstone St.	~~0.396~~0.496	A	~~0.412~~0.512	B	-	-
13. Willow St./Gladstone St. *	10.1 sec.	B	11.5 sec.	B	-	-
14. Valley Center Ave./Gladstone St. *	10.5 sec.	B	13.6 sec.	B	-	-
15. Shellman Ave. /Gladstone St. *	11.1 sec.	B	12.3 sec.	A	11.1 sec.	B
16. Lone Hill Ave./Gladstone St.	~~0.381~~0.481	A	~~0.519~~0.619	~~A~~B	~~0.764~~0.864	~~C~~D
17. Amelia Ave.-Pearlanna/Gladstone St.	~~0.352~~0.452	A	~~0.431~~0.531	A	~~0.293~~0.393	A
18. Lone Hill Ave./Arrow Hwy.	~~0.501~~0.601	~~A~~B	~~0.568~~0.668	~~A~~B	~~0.508~~0.608	~~A~~B
19. Arrow Hwy./Sb SR-57 Off-Ramp	~~0.499~~0.599	A	~~0.597~~0.697	~~A~~B	~~0.703~~0.803	~~C~~D
20. Arrow Hwy./North Village Ct.	~~0.372~~0.472	A	~~0.481~~0.581	A	~~0.601~~0.701	~~B~~C
21. Arrow Hwy./Bonita Ave.	~~0.724~~0.824	~~C~~D	~~0.948~~1.048	~~E~~F	~~0.721~~0.821	~~C~~D

** Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004.~~December 2004.

FUTURE (YEAR 2005) GROWTH + PROJECT TRAFFIC CONDITIONS

Table A-5 provides a summary of the level of service at the study intersections, under future ambient growth (year 2005) conditions, with the ICU methodology adjustment.

TABLE A-5: YEAR 2005 WITH PROPOSED PROJECT ONLY

	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak**	
Intersection Location	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Lone Hill Ave./Route 66-Foothill Blvd.	~~0.705~~0.805	~~C~~D	~~0.789~~0.889	~~C~~D	-	-
2. Amelia Ave./Foothill Blvd.	~~0.464~~0.564	A	~~0.515~~0.615	~~A~~B	-	-
3. Lone Hill Ave./Kenoma St. *	33.9 sec.	D	>100 sec.	F	-	-
4. Lone Hill Ave./Petunia St.	~~0.479~~0.579	A	~~0.533~~0.633	~~A~~B	-	-
5. Lone Hill Ave./I-210 Wb ramps	~~0.901~~1.001	~~E~~F	~~1.315~~1.415	F	-	-
6. Lone Hill Ave./I-210 Eb ramps	~~0.623~~0.723	~~B~~C	~~0.756~~0.856	~~C~~D	-	-
7. Lone Hill Ave./Auto Centre Dr.	~~0.521~~0.621	~~A~~B	~~0.843~~0.943	~~D~~E	~~0.777~~0.877	~~C~~D
8. Walmart Dwy./Auto Centre Dr.	~~0.324~~0.424	A	~~0.482~~0.582	A	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	~~0.417~~0.517	A	~~0.621~~0.721	~~B~~C	-	-
10. Amelia Ave./Auto Centre Dr.-Allen	~~0.355~~0.455	A	~~0.399~~0.499	A	-	-
11. Lone Hill Ave./Gl. Marketplace Dwy.	~~0.310~~0.410	A	~~0.485~~0.585	A	~~0.593~~0.693	~~A~~B
12. Sunflower St./Gladstone St.	~~0.403~~0.503	A	~~0.433~~0.533	A	-	-
13. Willow St./Gladstone St. *	10.3 sec.	B	12.2 sec.	B	-	-
14. Valley Center Ave./Gladstone St. *	10.8 sec.	B	15.0 sec.	B	-	-
15. Shellman Ave. /Gladstone St. *	11.3 sec.	B	12.8 sec.	B	12.0 sec.	B
16. Lone Hill Ave./Gladstone St.	~~0.423~~0.523	A	~~0.615~~0.715	~~B~~C	~~0.919~~1.019	~~E~~F
17. Amelia Ave.-Pearlanna/Gladstone St.	~~0.365~~0.465	A	~~0.447~~0.547	A	~~0.344~~0.444	A
18. Lone Hill Ave./Arrow Hwy.	~~0.524~~0.624	~~A~~B	~~0.618~~0.718	~~B~~C	~~0.647~~0.747	~~B~~C
19. Arrow Hwy./Sb SR-57 Off-Ramp	~~0.512~~0.612	~~A~~B	~~0.613~~0.713	~~B~~C	~~0.720~~0.820	~~C~~D
20. Arrow Hwy./North Village Ct.	~~0.379~~0.479	A	~~0.496~~0.596	A	~~0.626~~0.726	~~B~~C
21. Arrow Hwy./Bonita Ave./SR-57 Nb ramps	~~0.735~~0.835	~~C~~D	~~0.958~~1.058	~~E~~F	~~0.761~~0.861	~~C~~D

** Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California*~~, February 24, 2004~~. December 2004.

FUTURE (YEAR 2005) GROWTH + CUMULATIVE PROJECTS TRAFFIC CONDITIONS

Table A-6 provides a summary of the level of service at the study intersections, under future ambient growth (year 2005) conditions and traffic from cumulative (area) projects, with the ICU methodology adjustment. These V/C & LOS values match those analyzed in the revised Transportation/Traffic section.

TABLE A-6: YEAR 2005 WITH CUMULATIVE PROJECTS TRAFFIC CONDITIONS

	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak**	
Intersection Location	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Lone Hill Ave./Route 66	~~0.735~~0.835	~~C~~D	~~0.830~~0.930	~~D~~E	-	-
2. Amelia Ave./Route 66	~~0.507~~0.607	~~A~~B	~~0.504~~0.604	~~A~~B	-	-
3. Lone Hill Ave./Kenoma St. *	48.6 sec.	E	>100 s.	F	-	-
4. Lone Hill Ave./Petunia St.	~~0.496~~0.596	A	~~0.565~~0.665	~~A~~B	-	-
5. Lone Hill Ave./I-210 Wb ramps	~~0.929~~1.029	~~E~~F	~~1.352~~1.452	F	-	-
6. Lone Hill Ave./I-210 Eb ramps	~~0.654~~0.754	~~B~~C	~~0.797~~0.897	~~C~~D	-	-
7. Lone Hill Ave./Auto Centre Dr.	~~0.540~~0.640	~~A~~B	~~0.841~~0.941	~~D~~E	~~0.728~~0.828	~~C~~D
8. Walmart Dwy./Auto Centre Dr.	~~0.336~~0.436	A	~~0.489~~0.589	A	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	~~0.425~~0.525	A	~~0.604~~0.704	~~B~~C	-	-
10. Amelia Ave./Auto Centre Dr.-Allen	~~0.366~~0.466	A	~~0.437~~0.537	A	-	-
11. Lone Hill Ave./Gl. Marketplace Dwy.	~~0.299~~0.399	A	~~0.454~~0.554	A	~~0.507~~0.607	~~A~~B
12. Sunflower St./Gladstone St.	~~0.459~~0.559	A	~~0.624~~0.724	~~B~~C	-	-
13. Willow St./Gladstone St.	11.8 sec.	B	20.4 sec.	C	-	-
14. Valley Center Ave./Gladstone St.	19.1 sec.	B	>100 s.	F	-	-
15. Shellman Ave. /Gladstone St. *	12.4 sec.	B	21.4 sec.	C	18.1 sec.	B
16. Lone Hill Ave./Gladstone St.	~~0.429~~0.529	A	~~0.606~~0.706	~~B~~C	~~0.875~~0.975	~~D~~E
17. Amelia Ave.-Pearlanna/Gladstone St.	~~0.405~~0.505	A	~~0.501~~0.601	~~A~~B	~~0.412~~0.512	A
18. Lone Hill Ave./Arrow Hwy.	~~0.585~~0.685	~~A~~B	~~0.741~~0.841	~~C~~D	~~0.694~~0.794	~~B~~C
19. Arrow Hwy./Sb SR-57 Off-Ramp	~~0.577~~0.677	B~~A~~	~~0.665~~0.765	~~B~~C	~~0.810~~0.910	~~D~~E
20. Arrow Hwy./North Village Ct.	~~0.412~~0.512	A	~~0.581~~0.681	~~A~~B	~~0.718~~0.818	~~C~~D
21. Arrow Hwy./Bonita Ave./SR-57 Nb ramps	~~0.799~~0.899	~~C~~D	~~1.109~~1.209	F	~~0.948~~1.048	~~E~~F

** Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004.~~December 2004.

FUTURE (YEAR 2005) GROWTH + CUMULATIVE PROJECTS + PROJECT TRAFFIC CONDITIONS

Table A-7 provides a summary of the level of service at the study intersections, under future ambient growth (year 2005) conditions with traffic from both cumulative (area) projects and the proposed project, with the ICU methodology adjustment.

TABLE A-7: YEAR 2005 WITH CUMULATIVE PROJECTS AND PROPOSED PROJECT TRAFFIC CONDITIONS

	Weekday AM Peak		Weekday PM Peak		Saturday Mid-Day Peak**	
Intersection Location	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**	**V/C or Delay**	**LOS**
1. Lone Hill Ave./Route 66	~~0.741~~0.841	~~C~~D	~~0.854~~0.954	~~D~~E	-	-
2. Amelia Ave./Route 66	~~0.512~~0.612	~~A~~B	~~0.525~~0.625	~~A~~B	-	-
3. Lone Hill Ave./Kenoma St. *	52.5 sec.	F	>100 sec.	F	-	-
4. Lone Hill Ave./Petunia St.	~~0.505~~0.605	~~A~~B	~~0.592~~0.692	~~A~~B	-	-
5. Lone Hill Ave./I-210 Wb ramps	~~0.948~~1.048	~~E~~F	~~1.397~~1.497	F	-	-
6. Lone Hill Ave./I-210 Eb ramps	~~0.663~~0.763	~~B~~C	~~0.820~~0.920	~~D~~E	-	-
7. Lone Hill Ave./Auto Centre Dr.	~~0.566~~0.666	~~A~~B	~~0.906~~1.006	~~E~~F	~~0.842~~0.942	~~D~~E
8. Walmart Dwy./Auto Centre Dr.	~~0.345~~0.445	A	~~0.515~~0.615	~~A~~B	-	-
9. SR-57 Nb off-ramp at Auto Centre Dr.	~~0.448~~0.548	A	~~0.648~~0.748	~~B~~C	-	-
10. Amelia Ave./Auto Centre Dr.-Allen	~~0.377~~0.477	A	~~0.454~~0.554	A	-	-
11. Lone Hill Ave./Gl. Marketplace Dwy.	~~0.335~~0.435	A	~~0.528~~0.628	~~A~~B	~~0.636~~0.736	~~B~~C
12. Sunflower St./Gladstone St.	~~0.466~~0.566	A	~~0.645~~0.745	~~B~~C	-	-
13. Willow St./Gladstone St. *	12.1 sec.	B	23.5 sec.	B	-	-
14. Valley Center Ave./Gladstone St. *	20.1 sec.	C	>100 sec.	F	-	-
15. Shellman Ave. /Gladstone St. *	12.7 sec.	B	23.5 sec.	C	~~21.4~~19.9 sec.	C
16. Lone Hill Ave./Gladstone St.	~~0.471~~0.571	A	~~0.702~~0.802	~~C~~D	~~1.029~~1.129	F
17. Amelia Ave.-Pearlanna/Gladstone St.	~~0.418~~0.518	A	~~0.519~~0.619	~~A~~B	~~0.462~~0.562	A
18. Lone Hill Ave./Arrow Hwy.	~~0.607~~0.707	~~B~~C	~~0.790~~0.890	~~C~~D	~~0.781~~0.881	~~C~~D
19. Arrow Hwy./Sb SR-57 Off-Ramp	~~0.590~~0.690	~~A~~B	~~0.679~~0.779	~~B~~C	~~0.827~~0.927	~~D~~E
20. Arrow Hwy./North Village Ct.	~~0.418~~0.518	A	~~0.595~~0.695	~~A~~B	~~0.743~~0.843	~~C~~D
21. Arrow Hwy./Bonita Ave./SR-57 Nb ramps	~~0.811~~0.911	~~D~~E	~~1.119~~1.219	F	~~0.988~~1.088	~~E~~F

** Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California*, ~~February 24, 2004.~~December 2004.

SIGNIFICANT TRAFFIC IMPACTS

Table A-8 provides a summary of the level of service and project significant impacts at the study intersections, under all scenarios examined. The ICU methodology adjustment is utilized in all scenarios.

TABLE A-8: SIGNIFICANT IMPACT ANALYSIS

Intersection		*EXISTING CONDITIONS (YEAR 2004)*		*FUTURE WITH AMBIENT GROWTH (YEAR 2005)*		*FUTURE + CUMULATIVE PROJECTS (YEAR 2005)*		*FUTURE + CUMULATIVE + PROPOSED PROJECT (YEAR 2005)*		*DIFF.*	*SIGNF?*
		V/C OR DELAY	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*	*V/C OR DELAY*	*LOS*		
1. Lone Hill Ave./Route 66	*AM*	~~*0.693*~~ *0.793*	~~*B*~~*C*	~~*0.700*~~ *0..800*	~~*C*~~ *D*	~~*0.735*~~ *0.835*	~~*C*~~ *D*	~~*0.741*~~ *0.841*	~~*C*~~ *D*	*0.006*	*NO*
	PM	~~*0.758*~~ *0.858*	~~*C*~~*D*	~~*.0766*~~ *0866*	~~*C*~~ *D*	~~*0.830*~~ *0.930*	~~*D*~~ *E*	~~*0.854*~~ *0.954*	~~*D*~~ *E*	*0.024*	***YES***
	*SAT***	-	-	-	-	-	-	-	-	-	-
2. Amelia Ave./Route 66	*AM*	~~*0.454*~~ *0.554*	*A*	~~*0.459*~~ *0.559*	*A*	~~*0.507*~~ *0.607*	~~*A*~~ *B*	~~*0.512*~~ *0.612*	~~*A*~~ *B*	*0.005*	*NO*
	PM	~~*0.489*~~ *0.589*	*A*	~~*0.494*~~ *0.594*	*A*	~~*0.504*~~ *0.604*	~~*A*~~ *B*	~~*0.525*~~ *0.625*	~~*A*~~ *B*	*0.021*	*NO*
	*SAT***	-	-	-	-	-	-	-	-	-	-
*3. Lone Hill Ave./Kenoma St. **	*AM*	*31.1 SEC.*	*D*	*32.1 SEC.*	*D*	*48.6 SEC.*	*E*	*52.5 SEC.*	*F*	-	***YES***
	PM	*>100 SEC.*	*F*	*>100 SEC.*	*F*	*>100 SEC.*	*F*	*>100 SEC.*	*F*	-	***YES***
	*SAT***	-	-	-	-	-	-	-	-	-	-
4. Lone Hill Ave./Petunia St.	*AM*	~~*0465*~~ *0.565*	*A*	~~*0.470*~~ *0.570*	*A*	~~*0.496*~~ *0.596*	*A*	~~*0.505*~~ *0.605*	~~*A*~~ *B*	*0.009*	*NO*
	PM	~~*0.494*~~ *0.594*	*A*	~~*0.499*~~ *0.599*	*A*	~~*0.565*~~ *0.665*	~~*A*~~ *B*	~~*0.592*~~ *0.692*	~~*A*~~ *B*	*0.027*	*NO*
	*SAT***	-	-	-	-	-	-	-	-	-	-
5. Lone Hill Ave./I-210 Wb On And Off Ramps	*AM*	~~*0.874*~~ *0.974*	~~*D*~~*E*	~~*0.882*~~ *0.982*	~~*D*~~ *E*	~~*0.929*~~ *1.029*	~~*E*~~ *F*	~~*0.948*~~ *1.048*	~~*E*~~ *F*	*0.019*	***YES***
	PM	~~*1.257*~~ *1.357*	*F*	~~*1.270*~~ *1.370*	*F*	~~*1.352*~~ *1.452*	*F*	~~*1.397*~~ *1.497*	*F*	*0.045*	***YES***
	*SAT***	-	-	-	-	-	-	-	-	-	-
6. Lone Hill Ave./I-210 Eb On And Off Ramps	*AM*	~~*0.608*~~ *0.708*	~~*B*~~*C*	~~*0.614*~~ *0.714*	~~*B*~~ *C*	~~*0.654*~~ *0.754*	~~*B*~~ *C*	~~*0.663*~~ *0.763*	~~*B*~~ *C*	*0.009*	*NO*
	PM	~~*0.725*~~ *0.825*	~~*C*~~*D*	~~*0.732*~~ *0.832*	~~*C*~~ *D*	~~*0.797*~~ *0.897*	~~*C*~~ *D*	~~*0.820*~~ *0.920*	~~*D*~~ *E*	*0.023*	~~*NO*~~ ***YES***
	*SAT***	-	-	-	-	-	-	-	-	-	-
7. Lone Hill Ave./Auto Centre Dr.	*AM*	~~*0.490*~~ *0.590*	*A*	~~*0.495*~~ *0.595*	*A*	~~*0.540*~~ *0.640*	~~*A*~~ *B*	~~*0.566*~~ *0.666*	~~*A*~~ *B*	*0.026*	*NO*
	PM	~~*0.769*~~ *0.869*	~~*C*~~*D*	~~*0.777*~~ *0.877*	~~*C*~~ *D*	~~*0.841*~~ *0.941*	~~*D*~~ *E*	~~*0.906*~~ *1.006*	~~*E*~~ *F*	*0.065*	***YES***
	*SAT***	~~*0.657*~~ *0.757*	~~*B*~~*C*	~~*0.663*~~ *0.763*	~~*B*~~ *C*	~~*0.728*~~ *0.828*	~~*C*~~ *D*	~~*0.842*~~ *0.942*	~~*D*~~ *E*	*0.114*	***YES***
8. Walmart Dwy./Auto Centre Dr.	*AM*	~~*0.311*~~ *0.411*	*A*	~~*0.314*~~ *0.414*	*A*	~~*0.336*~~ *0.436*	*A*	~~*0.345*~~ *0.445*	*A*	*0.009*	*NO*
	PM	~~*0.451*~~ *0.551*	*A*	~~*0.456*~~ *0.556*	*A*	~~*0.489*~~ *0.589*	*A*	~~*0.515*~~ *0.615*	~~*A*~~ *B*	*0.026*	*NO*
	*SAT***	-	-	-	-	-	-	-	-	-	-
9. Sr-57 Nb Off-Ramp At Auto Centre Dr.	*AM*	~~*0.391*~~ *0.491*	*A*	~~*0.395*~~ *0.495*	*A*	~~*0.425*~~ *0.525*	*A*	~~*0.448*~~ *0.548*	*A*	*0.023*	*NO*
	PM	~~*0.571*~~ *0.671*	~~*A*~~*B*	~~*0.576*~~ *0.676*	~~*A*~~ *B*	~~*0.604*~~ *0.704*	~~*B*~~ *C*	~~*0.648*~~ *0.748*	~~*B*~~ *C*	*0.044*	*NO*
	*SAT***	-	-	-	-	-	-	-	-	-	-
10. Amelia Ave./ Auto Centre Dr. Allen Ave.	*AM*	~~*0.348*~~ *0.448*	*A*	~~*0.352*~~ *0.452*	*A*	~~*0.366*~~ *0.466*	*A*	~~*0.377*~~ *0.477*	*A*	*0.011*	*NO*
	PM	~~*0.378*~~ *0.478*	*A*	~~*0.378*~~ *0.478*	*A*	~~*0.437*~~ *0.537*	*A*	~~*0.454*~~ *0.554*	*A*	*0.017*	*NO*
	*SAT***	-	-	-	-	-	-	-	-	-	-

**-Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion. Because Los Angeles County Guidelines do no identify significant impact thresholds for unsignalized intersections, significance was determined based on degradation from LOS "D" or better to "E" or "F" and/or the need for a traffic signal based on a traffic signal warrant analysis (see Table 3L-9).*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California*~~, February 24, 2004~~. December 2004.

TABLE 3L-8 (CONTINUED): SIGNIFICANT IMPACT ANALYSIS

11. Lone Hill Ave./Glendora Marketplace Dwy.	*AM*	*0.371*	*A*	*0.374*	*A*	*0.399*	*A*	*0.435*	*A*	*0.036*	*NO*
	PM	*0.508*	*A*	*0.512*	*A*	*0.554*	*A*	*0.628*	*B*	*0.074*	*NO*
	*SAT***	~~*0.484*~~ *0.584*	*A*	~~*0.489*~~ *0.589*	*A*	~~*0.507*~~ *0.607*	~~*A*~~ *B*	~~*0.636*~~ *0.736*	~~*B*~~ *C*	*0.129*	*NO*
12. Sunflower St./ Gladstone St.	*AM*	*0.492*	*A*	*0.496*	*A*	*0.559*	*A*	*0.566*	*A*	*0.007*	*NO*
	PM	*0.508*	*A*	*0.512*	*A*	*0.724*	*C*	*0.745*	*C*	*0.021*	*NO*
	*SAT***	-	-	-	-	-	-	-	-	-	-
*13. Willow St./Gladstone St. **	*AM*	*10.0 SEC.*	*B*	*10.1 SEC.*	*B*	*11.8 SEC.*	*B*	*12.1 SEC.*	*B*	-	***NO***
	PM	*11.4 SEC.*	*B*	*11.5 SEC.*	*B*	*20.4 SEC.*	*C*	*23.5 SEC.*	*C*	-	***YES***
	*SAT***	-	-	-	-	-	-	-	-	-	-
*14. Valley Center Ave./Gladstone St. **	*AM*	*10.5 SEC.*	*B*	*10.5 SEC.*	*B*	*19.1 SEC.*	~~*B*~~ *C*	*20.1 SEC.*	*C*	-	***NO***
	PM	*13.5 SEC.*	*B*	*13.6 SEC.*	*B*	*>100 SEC.*	*F*	*>100 SEC.*	*F*	-	***YES***
	*SAT***	-	-	-	-	-	-	-	-	-	-
*15. Shellman Ave./Gladstone St. **	*AM*	*11.1 SEC.*	*B*	*11.1 SEC.*	*B*	*12.4 SEC.*	*B*	*12.7 SEC.*	*B*	-	***NO***
	PM	*12.2 SEC.*	*B*	*12.3 SEC.*	*B*	*21.4 SEC.*	*C*	*23.5 SEC.*	*C*	-	***NO***
	SAT	*11.1 SEC.*	*B*	*11.1 SEC.*	*B*	*18.1 SEC.*	*C*	~~*21.4*~~ *19.9 SEC.*	*C*	-	-
16. Lone Hill Ave./Gladstone St.	*AM*	~~*0.378*~~ *0.478*	*A*	~~*0.381*~~ *0.481*	*A*	~~*0.429*~~ *0.529*	*A*	~~*0.471*~~ *0.571*	*A*	*0.042*	*NO*
	PM	~~*0.514*~~ *0.614*	~~*A*~~*B*	~~*0.519*~~ *0.619*	~~*A*~~ *B*	~~*0.606*~~ *0.706*	~~*B*~~ *C*	~~*0.702*~~ *0.802*	~~*C*~~ *D*	*0.096*	~~*NO*~~ ***YES***
	SAT	~~*0.757*~~ *0.857*	~~*C*~~*D*	~~*0.764*~~ *0.864*	~~*C*~~ *D*	~~*0.875*~~ *0.975*	~~*D*~~ *E*	~~*1.029*~~ *1.129*	*F*	*0.154*	***YES***
17. Amelia Ave.-Pearlanna Dr./Gladstone St.	*AM*	~~*0.349*~~ *0.449*	*A*	~~*0.352*~~ *0.452*	*A*	~~*0.405*~~ *0.505*	*A*	~~*0.418*~~ *0.518*	*A*	*0.013*	*NO*
	PM	~~*0.427*~~ *0.527*	*A*	~~*0.431*~~ *0.531*	*A*	~~*0.501*~~ *0.601*	~~*A*~~ *B*	~~*0.519*~~ *0.619*	~~*A*~~ *B*	*0.018*	*NO*
	SAT	~~*0.290*~~ *0.390*	*A*	~~*0.293*~~ *0.393*	*A*	~~*0.412*~~ *0.512*	*A*	~~*0.462*~~ *0.562*	*A*	*0.050*	*NO*
18. Lone Hill Ave./Arrow Hwy.	*AM*	~~*0.496*~~ *0.596*	*A*	~~*0.501*~~ *0.601*	~~*A*~~ *B*	~~*0.585*~~ *0.685*	~~*A*~~ *B*	~~*0.607*~~ *0.707*	~~*B*~~ *C*	*0.022*	*NO*
	PM	~~*0.563*~~ *0.663*	~~*A*~~*B*	~~*0.568*~~ *0.668*	~~*A*~~ *B*	~~*0.741*~~ *0.841*	~~*C*~~ *D*	~~*0.790*~~ *0.890*	~~*C*~~ *D*	*0.049*	***YES***
	SAT	~~*0.402*~~ *0.502*	*A*	~~*0.408*~~ *0.508*	*A*	~~*0.694*~~ *0.794*	~~*B*~~ *C*	~~*0.781*~~ *0.881*	~~*C*~~ *D*	*0.087*	~~*NO*~~ ***YES***
19. Arrow Hwy./Sb SR-57 Off-Ramp	*AM*	~~*0.494*~~ *0.594*	*A*	~~*0.499*~~ *0.599*	*A*	~~*0.577*~~ *0.677*	~~*A*~~ *B*	~~*0.590*~~ *0.690*	~~*A*~~ *B*	*0.013*	*NO*
	PM	~~*0.591*~~ *0.691*	~~*A*~~*B*	~~*0.597*~~ *0.697*	~~*A*~~ *B*	~~*0.665*~~ *0.765*	~~*B*~~ *C*	~~*0.679*~~ *0.779*	~~*B*~~ *C*	*0.014*	*NO*
	SAT	~~*0.696*~~ *0.796*	~~*B*~~*C*	~~*0.703*~~ *0.803*	~~*C*~~ *D*	~~*0.810*~~ *0.910*	~~*D*~~ *E*	~~*0.827*~~ *0.927*	~~*D*~~ *E*	*0.017*	~~*NO*~~ ***YES***
20. Arrow Hwy./North Village Ct.	*AM*	~~*0.368*~~ *0.468*	*A*	~~*0.372*~~ *0.472*	*A*	~~*0.412*~~ *0.512*	*A*	~~*0.418*~~ *0.518*	*A*	*0.006*	*NO*
	PM	~~*0.477*~~ *0.577*	*A*	~~*0.481*~~ *0.581*	*A*	~~*0.581*~~ *0.681*	~~*A*~~ *B*	~~*0.595*~~ *0.695*	~~*A*~~ *B*	*0.014*	*NO*
	SAT	~~*0.595*~~ *0.695*	~~*A*~~*B*	~~*0.601*~~ *0.701*	~~*B*~~ *C*	~~*0.718*~~ *0.818*	~~*C*~~ *D*	~~*0.743*~~ *0.843*	~~*C*~~ *D*	*0.025*	~~*NO*~~ ***YES***
21. Arrow Hwy./Bonita Ave./SR-57 Nb ramps	*AM*	~~*0.717*~~ *0.817*	~~*C*~~*D*	~~*0.724*~~ *0.824*	~~*C*~~ *D*	~~*0.799*~~ *0.899*	~~*C*~~ *D*	~~*0.811*~~ *0.911*	~~*D*~~ *E*	*0.012*	*NO*
	PM	~~*0.938*~~ *1.038*	~~*E*~~*F*	~~*0.948*~~ *1.048*	~~*E*~~ *F*	~~*1.109*~~ *1.209*	*F*	~~*1.119*~~ *1.219*	*F*	*0.010*	***YES***
	SAT	~~*0.714*~~ *0.814*	~~*C*~~*D*	~~*0.721*~~ *0.821*	~~*C*~~ *D*	~~*0.948*~~ *1.048*	~~*E*~~ *F*	~~*0.988*~~ *1.088*	~~*E*~~ *F*	*0.040*	***YES***

**-Unsignalized, partially-controlled intersection. For this location, the table shows level of service based on the delay output of the Highway Capacity Manual method. Where delay values in excess of 100 seconds resulted, specific values are not provided as the HCM method becomes unstable at these levels of congestion. Because Los Angeles County Guidelines do no identify significant impact thresholds for unsignalized intersections, significance was determined based on degradation from LOS "D" or better to "E" or "F" and/or the need for a traffic signal based on a traffic signal warrant analysis (see Table 3L-9).*

***Saturday mid-day counts were taken at the nine study intersections closest to the project site.*

Source: Katz, Okitsu & Associates, *Traffic Study for the Proposed Costco Commercial Complex, San Dimas, California,* ~~February 24, 2004~~ December 2004. .

Appendix C

This appendix provides output sheets of the project scenarios for the main analysis discussed within Revision II of the Transportation/Traffic section. Modifications to the project trip generation for Revision II included the use of updated trip generation rates (7th Edition, *Trip Generation),* and the inclusion of internal trip capture rates. The internal trip capture rates were utilized to avoid the over-counting of trips that would occur under typical trip generation calculations. Visitors to the site may patronize multiple uses (retail, gas station, discount store) within the Project site, which is taken into account under the established ITE trip capture calculation methodology.

Modifications to the trip generation methodology created changes in Project-only volumes within the following analysis scenarios:

- Ambient Growth + Project – AM Peak
- Ambient Growth + Project – PM Peak
- Ambient Growth + Related/Area Projects + Project – AM Peak
- Ambient Growth + Related/Area Projects + Project – PM Peak

Changes to the remaining analysis scenarios (existing and future pre-Project) only involved an addition of 0.010 to volume-to-capacity ratios. Volumes utilized for level of service analysis were not modified in the remaining scenarios.

Appendix C (continued)

Analysis Worksheets
Ambient Growth + Project – AM Peak

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Lone Hill/Route 66-Foothill Blvd.

Cycle (sec):	100	Critical Vol./Cap. (X):	0.804
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 1 1 0			1 0 2 0 1			1 0 2 0 1			2 0 1 1 0		
Volume Module: >> Count Date: 14 Jan 2004 << 0730-0830												
Base Vol:	510	427	210	169	546	142	95	442	563	154	845	127
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	515	431	212	171	551	143	96	446	569	156	853	128
Added Vol:	10	2	4	0	2	0	0	0	10	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	525	433	216	171	553	143	96	446	579	161	853	128
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	525	433	216	171	553	143	96	446	579	161	853	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	525	433	216	171	553	143	96	446	579	161	853	128
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	525	433	216	171	553	143	96	446	579	161	853	128
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.33	0.67	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.74	0.26
Final Sat.:	3200	2135	1065	1600	3200	1600	1600	3200	1600	3200	2782	418
Capacity Analysis Module:												
Vol/Sat:	0.16	0.20	0.20	0.11	0.17	0.09	0.06	0.14	0.36	0.05	0.31	0.31
Crit Moves:	****				****		****				****	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Amelia/Foothill

Cycle (sec):	100	Critical Vol./Cap. (X):	0.561
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 1 1 0			1 0 2 0 1			1 0 1 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 0730-0830												
Base Vol:	200	125	42	90	145	32	38	284	127	81	712	88
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	202	126	42	91	146	32	38	287	128	82	719	89
Added Vol:	0	2	4	0	2	1	1	3	0	4	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	202	128	46	91	148	33	39	290	128	86	722	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	202	128	46	91	148	33	39	290	128	86	722	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	202	128	46	91	148	33	39	290	128	86	722	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	202	128	46	91	148	33	39	290	128	86	722	89
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.63	0.37	1.00	2.00	1.00	1.00	1.78	0.22
Final Sat.:	1600	3200	1600	1600	2613	587	1600	3200	1600	1600	2849	351
Capacity Analysis Module:												
Vol/Sat:	0.13	0.04	0.03	0.06	0.06	0.06	0.02	0.09	0.08	0.05	0.25	0.25
Crit Moves:	****				****		****				****	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Lone Hill/Kenoma

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: D[33.3]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1!	0	0	0	0	1!	0	0
Volume Module: >> Count Date: 14 Jan 2004 << 0730-0830																				
Base Vol:	16	1135		10		28	1122		33		6		1		38	2		1		32
Growth Adj:	1.01	1.01		1.01		1.01	1.01		1.01		1.01		1.01		1.01	1.01		1.01		1.01
Initial Bse:	16	1146		10		28	1133		33		6		1		38	2		1		32
Added Vol:	1	16		1		0	17		0		0		0		1	1		0		0
PasserByVol:	0	0		0		0	0		0		0		0		0	0		0		0
Initial Fut:	17	1162		11		28	1150		33		6		1		39	3		1		32
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	17	1162		11		28	1150		33		6		1		39	3		1		32
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
Final Vol.:	17	1162		11		28	1150		33		6		1		39	3		1		32
Critical Gap Module:																				
Critical Gp:	4.1	xxxx		xxxxx		4.1	xxxx		xxxxx		7.5		6.5		6.9	7.5		6.5		6.9
FollowUpTim:	2.2	xxxx		xxxxx		2.2	xxxx		xxxxx		3.5		4.0		3.3	3.5		4.0		3.3
Capacity Module:																				
Cnflict Vol:	1184	xxxx		xxxxx		1173	xxxx		xxxxx		1839		2431		592	1834		2442		587
Potent Cap.:	597	xxxx		xxxxx		602	xxxx		xxxxx		48		32		455	48		32		458
Move Cap.:	597	xxxx		xxxxx		602	xxxx		xxxxx		41		30		455	41		29		458
Volume/Cap:	0.03	xxxx		xxxx		0.05	xxxx		xxxx		0.15		0.03		0.09	0.07		0.03		0.07
Level Of Service Module:																				
Queue:	0.1	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Stopped Del:	11.2	xxxx		xxxxx		11.3	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
LOS by Move:	B	*		*		B	*		*		*		*		*	*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		173		xxxxx	xxxx		203		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		1.0		xxxxx	xxxxx		0.6		xxxxx
Shrd StpDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx		33.3		xxxxx	xxxxx		26.6		xxxxx
Shared LOS:	*	*		*		*	*		*		*		D		*	*		D		*
ApproachDel:	xxxxxx					xxxxxx					33.3					26.6				
ApproachLOS:	*					*					D					D				

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Lone Hill/Petunia

Cycle (sec):	100	Critical Vol./Cap. (X):	0.577
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 15 Jan 2004 << 0730-0830												
Base Vol:	6	1111	24	22	1103	6	27	20	21	71	11	46
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	6	1122	24	22	1114	6	27	20	21	72	11	46
Added Vol:	1	19	1	0	19	0	0	0	1	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	1141	25	22	1133	6	27	20	22	73	11	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	7	1141	25	22	1133	6	27	20	22	73	11	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	1141	25	22	1133	6	27	20	22	73	11	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	7	1141	25	22	1133	6	27	20	22	73	11	46
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.96	0.04	1.00	1.99	0.01	0.39	0.29	0.32	0.56	0.08	0.36
Final Sat.:	1600	3131	69	1600	3183	17	626	464	510	893	136	571
Capacity Analysis Module:												
Vol/Sat:	0.00	0.36	0.36	0.01	0.36	0.36	0.02	0.04	0.04	0.05	0.08	0.08
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Lone Hill/SR-210 wb Ramps

Cycle (sec):	100	Critical Vol./Cap. (X):	0.995
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	1! 0	0
Volume Module: >> Count Date: 14 Jan 2004 << 0730-0830												
Base Vol:	578	531	0	0	983	236	0	0	0	275	0	492
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	584	536	0	0	993	238	0	0	0	278	0	497
Added Vol:	13	21	0	0	22	0	0	0	0	11	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	597	557	0	0	1015	238	0	0	0	289	0	497
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	597	557	0	0	1015	238	0	0	0	289	0	497
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	597	557	0	0	1015	238	0	0	0	289	0	497
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	597	557	0	0	1015	238	0	0	0	289	0	497
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1600	3200	0	0	4800	1600	0	0	0	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.37	0.17	0.00	0.00	0.21	0.15	0.00	0.00	0.00	0.18	0.00	0.31
Crit Moves:	****				****							****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Lone Hill/SR-210 eb Ramps

Cycle (sec):	100	Critical Vol./Cap. (X):	0.721
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 3	0 1		1 0 3	0 0		1 0 0	1 0		0 0 0	0 0	
Volume Module: >> Count Date: 13 Jan 2004 << 0730-0830												
Base Vol:	0	752	254	273	969	0	449	1	381	0	0	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	760	257	276	979	0	453	1	385	0	0	0
Added Vol:	0	34	11	0	33	0	0	0	11	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	794	268	276	1012	0	453	1	396	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	794	268	276	1012	0	453	1	396	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	794	268	276	1012	0	453	1	396	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	794	268	276	1012	0	453	1	396	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	1.00	0.01	0.99	0.00	0.00	0.00
Final Sat.:	0	4800	1600	1600	4800	0	1600	4	1596	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.17	0.17	0.17	0.21	0.00	0.28	0.25	0.25	0.00	0.00	0.00
Crit Moves:		****		****			****					

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Lone Hill/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.614
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 2	0 1		2 0 2	0 0		0 0 0	0 0		1 0 1!	0 1	
Volume Module: >> Count Date: 14 Jan 2004 << 0730-0830												
Base Vol:	0	523	191	618	774	0	0	0	0	225	0	417
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	528	193	624	782	0	0	0	0	227	0	421
Added Vol:	0	45	22	0	44	0	0	0	0	22	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	573	215	624	826	0	0	0	0	249	0	421
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	573	215	624	826	0	0	0	0	249	0	421
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	573	215	624	826	0	0	0	0	249	0	421
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	573	215	624	826	0	0	0	0	249	0	421
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.11	0.01	1.88
Final Sat.:	0	3200	1600	3200	3200	0	0	0	0	1785	0	3015
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.13	0.20	0.26	0.00	0.00	0.00	0.00	0.14	0.00	0.14
Crit Moves:		****		****								****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 WalMart Dwy/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.421
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module: >> Count Date: 13 Jan 2004 << 0730-0830												
Base Vol:	86	0	52	0	0	0	0	667	22	67	563	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	87	0	53	0	0	0	0	674	22	68	569	0
Added Vol:	1	0	0	0	0	0	0	20	1	0	21	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	88	0	53	0	0	0	0	694	23	68	590	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	88	0	53	0	0	0	0	694	23	68	590	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	0	53	0	0	0	0	694	23	68	590	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	88	0	53	0	0	0	0	694	23	68	590	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.94	0.06	1.00	2.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	3096	104	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.03	0.00	0.00	0.00	0.00	0.22	0.22	0.04	0.18	0.00
Crit Moves:	****							****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 SR57 NBoff/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.508
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 2 0 0			0 0 2 0 0		
Volume Module: >> Count Date: 13 Jan 2004 << 0730-0830												
Base Vol:	427	0	329	0	0	0	0	170	0	0	398	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	431	0	332	0	0	0	0	172	0	0	402	0
Added Vol:	19	0	0	0	0	0	0	2	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	450	0	332	0	0	0	0	174	0	0	404	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	450	0	332	0	0	0	0	174	0	0	404	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	450	0	332	0	0	0	0	174	0	0	404	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	450	0	332	0	0	0	0	174	0	0	404	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.28	0.00	0.21	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.13	0.00
Crit Moves:	****						****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Amelia/Auto Centre-Allen

Cycle (sec):	100	Critical Vol./Cap. (X):	0.453
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0	1 0		1 0	1 0	1	1 0 0	1 0		1 0 0	1 0	
Volume Module: >> Count Date: 15 Jan 2004 << 0715-0815												
Base Vol:	87	71	52	30	135	152	154	156	106	56	58	17
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	88	72	53	30	136	154	156	158	107	57	59	17
Added Vol:	0	5	1	0	5	2	2	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	88	77	54	30	141	156	158	158	107	58	59	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	88	77	54	30	141	156	158	158	107	58	59	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	77	54	30	141	156	158	158	107	58	59	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	88	77	54	30	141	156	158	158	107	58	59	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.59	0.41	1.00	1.00	1.00	1.00	0.60	0.40	1.00	0.77	0.23
Final Sat.:	1600	942	658	1600	1600	1600	1600	953	647	1600	1237	363
Capacity Analysis Module:												
Vol/Sat:	0.05	0.08	0.08	0.02	0.09	0.10	0.10	0.17	0.17	0.04	0.05	0.05
Crit Moves:	****					****		****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Glendora Mktplc - East Access

Cycle (sec): 100 Critical Vol./Cap. (X): 0.395
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	1 1	0	1 0	2 0	1	2 0	0 1	0	0 0	1! 0	0
Volume Module: >> Count Date: 15 Jan 2004 << 0800-0900												
Base Vol:	53	513	6	17	660	229	147	1	30	2	0	2
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	54	518	6	17	667	231	148	1	30	2	0	2
Added Vol:	0	66	0	0	66	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	584	6	17	733	231	148	1	30	2	0	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	584	6	17	733	231	148	1	30	2	0	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	584	6	17	733	231	148	1	30	2	0	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	54	584	6	17	733	231	148	1	30	2	0	2
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.98	0.02	1.00	2.00	1.00	2.00	0.03	0.97	0.50	0.00	0.50
Final Sat.:	3200	3167	33	1600	3200	1600	3200	52	1548	800	0	800
Capacity Analysis Module:												
Vol/Sat:	0.02	0.18	0.18	0.01	0.23	0.14	0.05	0.02	0.02	0.00	0.00	0.00
Crit Moves:	****				****		****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Sunflower/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.501
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1 1 0			1 0 1 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 0730-0830												
Base Vol:	53	394	55	67	207	101	118	192	67	79	321	115
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	54	398	56	68	209	102	119	194	68	80	324	116
Added Vol:	0	0	4	2	0	0	0	5	0	4	5	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	398	60	70	209	102	119	199	68	84	329	118
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	398	60	70	209	102	119	199	68	84	329	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	398	60	70	209	102	119	199	68	84	329	118
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	54	398	60	70	209	102	119	199	68	84	329	118
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	1.34	0.66	1.00	1.49	0.51	1.00	1.47	0.53
Final Sat.:	1600	2783	417	1600	2151	1049	1600	2388	812	1600	2355	845
Capacity Analysis Module:												
Vol/Sat:	0.03	0.14	0.14	0.04	0.10	0.10	0.07	0.08	0.08	0.05	0.14	0.14
Crit Moves:		****			****			****			****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #13 Willow/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.357
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	10.2
Optimal Cycle:	0	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module: >> Count Date: 13 Jan 2004 << 0730-0830												
Base Vol:	46	16	25	21	25	40	12	255	39	24	397	30
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	46	16	25	21	25	40	12	258	39	24	401	30
Added Vol:	0	0	1	1	0	0	0	11	0	1	11	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	16	26	22	25	40	12	269	39	25	412	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	16	26	22	25	40	12	269	39	25	412	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	16	26	22	25	40	12	269	39	25	412	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	46	16	26	22	25	40	12	269	39	25	412	31
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.52	0.18	0.30	0.25	0.29	0.46	0.07	1.68	0.25	0.11	1.76	0.13
Final Sat.:	306	106	173	152	172	276	48	1081	162	71	1169	90
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.15	0.15	0.15	0.15	0.25	0.25	0.24	0.36	0.35	0.35
Crit Moves:		****			****		****			****		
Delay/Veh:	9.6	9.6	9.6	9.4	9.4	9.4	10.0	9.8	9.6	11.0	10.8	10.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.6	9.6	9.6	9.4	9.4	9.4	10.0	9.8	9.6	11.0	10.8	10.6
LOS by Move:	A	A	A	A	A	A	B	A	A	B	B	B
ApproachDel:		9.6			9.4			9.8			10.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.6			9.4			9.8			10.8	
LOS by Appr:		A			A			A			B	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #114 Valley Center/Gladstone

Cycle (sec): 100 Critical Vol./Cap. (X): 0.379
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 10.7
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module: >> Count Date: 14 Jan 2004 << 0715-0815												
Base Vol:	36	12	150	13	12	11	1	244	36	71	376	8
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	36	12	152	13	12	11	1	246	36	72	380	8
Added Vol:	0	0	1	1	0	0	0	13	0	1	13	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	12	153	14	12	11	1	259	36	73	393	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	12	153	14	12	11	1	259	36	73	393	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	12	153	14	12	11	1	259	36	73	393	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	36	12	153	14	12	11	1	259	36	73	393	9
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.18	0.06	0.76	0.38	0.32	0.30	0.01	1.75	0.24	0.31	1.65	0.04
Final Sat.:	117	39	489	210	180	165	4	1084	154	192	1054	25
Capacity Analysis Module:												
Vol/Sat:	0.31	0.31	0.31	0.07	0.07	0.07	0.24	0.24	0.24	0.38	0.37	0.37
Crit Moves:		****			****		****			****		
Delay/Veh:	10.4	10.4	10.4	9.2	9.2	9.2	10.1	10.0	9.8	11.6	11.3	11.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.4	10.4	10.4	9.2	9.2	9.2	10.1	10.0	9.8	11.6	11.3	11.2
LOS by Move:	B	B	B	A	A	A	B	A	A	B	B	B
ApproachDel:		10.4			9.2			10.0			11.4	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.4			9.2			10.0			11.4	
LOS by Appr:		B			A			A			B	

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #115 Shellman/Gladstone

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[11.2]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0 0	1! 0	0		0 0	0 0	0		0 0	1 1	0		0 1	1 0	0	
Volume Module: >> Count Date: 14 Jan 2004 << 0730-0830																
Base Vol:	12	0	85		0	0	0		0	418	17		43	403	0	
Growth Adj:	1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01	
Initial Bse:	12	0	86		0	0	0		0	422	17		43	407	0	
Added Vol:	0	0	0		0	0	0		0	15	0		0	15	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	12	0	86		0	0	0		0	437	17		43	422	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	12	0	86		0	0	0		0	437	17		43	422	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	12	0	86		0	0	0		0	437	17		43	422	0	
Critical Gap Module:																
Critical Gp:	6.8	xxxx	6.9		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	xxxx	3.3		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	744	xxxx	227		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		454	xxxx	xxxxx	
Potent Cap.:	355	xxxx	782		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1117	xxxx	xxxxx	
Move Cap.:	344	xxxx	782		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1117	xxxx	xxxxx	
Volume/Cap:	0.04	xxxx	0.11		xxxx	xxxx	xxxx		xxxx	xxxx	xxxx		0.04	xxxx	xxxx	
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.1	xxxx	xxxxx	
Stopped Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		8.4	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		*	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	675	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.5	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.1	xxxx	xxxxx	
Shrd StpDel:	xxxxx	11.2	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		8.4	xxxx	xxxxx	
Shared LOS:	*	B	*		*	*	*		*	*	*		A	*	*	
ApproachDel:		11.2			xxxxxx				xxxxxx				xxxxxx			
ApproachLOS:		B			*				*				*			

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #116 Lone Hill/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.508
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	0	0	0				0	0	0				0	0	0				0	0	0			
Lanes:	1	0	2	0	1		1	0	2	0	1		2	0	1	0	1		1	0	1	0	1	
Volume Module: >> Count Date: 13 Jan 2004 << 0745-0845																								
Base Vol:	26	242	97				50	442	211				198	132	147				134	258	76			
Growth Adj:	1.01	1.01	1.01				1.01	1.01	1.01				1.01	1.01	1.01				1.01	1.01	1.01			
Initial Bse:	26	244	98				51	446	213				200	133	148				135	261	77			
Added Vol:	14	55	3				12	55	0				0	1	14				3	1	11			
PasserByVol:	0	0	0				0	0	0				0	0	0				0	0	0			
Initial Fut:	40	299	101				63	501	213				200	134	162				138	262	88			
User Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
PHF Volume:	40	299	101				63	501	213				200	134	162				138	262	88			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
Reduced Vol:	40	299	101				63	501	213				200	134	162				138	262	88			
PCE Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
Final Vol.:	40	299	101				63	501	213				200	134	162				138	262	88			
Saturation Flow Module:																								
Sat/Lane:	1600	1600	1600				1600	1600	1600				1600	1600	1600				1600	1600	1600			
Adjustment:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
Lanes:	1.00	2.00	1.00				1.00	2.00	1.00				2.00	1.00	1.00				1.00	1.00	1.00			
Final Sat.:	1600	3200	1600				1600	3200	1600				3200	1600	1600				1600	1600	1600			
Capacity Analysis Module:																								
Vol/Sat:	0.03	0.09	0.06				0.04	0.16	0.13				0.06	0.08	0.10				0.09	0.16	0.05			
Crit Moves:	****							****					****							****				

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #117 Amelia/Gladstone

Cycle (sec): 100 Critical Vol./Cap. (X): 0.460
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: A

Street Name:	Amelia Ave						Gladstone					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1!	0 0		0 0 1!	0 0		1 0 0	1 0		1 0 0	1 0	
Volume Module: >> Count Date: 13 Jan 2004 << 0715-0815												
Base Vol:	8	23	4	107	20	160	80	80	4	6	81	102
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	8	23	4	108	20	162	81	81	4	6	82	103
Added Vol:	0	0	0	0	0	6	6	1	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	23	4	108	20	168	87	82	4	6	83	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	23	4	108	20	168	87	82	4	6	83	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	23	4	108	20	168	87	82	4	6	83	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	8	23	4	108	20	168	87	82	4	6	83	103
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.23	0.66	0.11	0.36	0.07	0.57	1.00	0.95	0.05	1.00	0.45	0.55
Final Sat.:	366	1051	183	584	109	906	1600	1525	75	1600	713	887
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.07	0.18	0.18	0.05	0.05	0.05	0.00	0.12	0.12
Crit Moves:	****				****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #118 Lone Hill/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.615
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	0	0	0				0	0	0				0	0	0				0	0	0			
Lanes:	1	0	2	0	1		2	0	1	1	0		1	0	2	1	0		1	0	2	1	0	
Volume Module: >> Count Date: 15 Jan 2004 << 0730-0830																								
Base Vol:	102	292	58				168	297	142				108	440	39				66	837	257			
Growth Adj:	1.01	1.01	1.01				1.01	1.01	1.01				1.01	1.01	1.01				1.01	1.01	1.01			
Initial Bse:	103	295	59				170	300	143				109	444	39				67	845	260			
Added Vol:	0	9	0				13	8	8				9	0	0				0	0	17			
PasserByVol:	0	0	0				0	0	0				0	0	0				0	0	0			
Initial Fut:	103	304	59				183	308	151				118	444	39				67	845	277			
User Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
PHF Volume:	103	304	59				183	308	151				118	444	39				67	845	277			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
Reduced Vol:	103	304	59				183	308	151				118	444	39				67	845	277			
PCE Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
Final Vol.:	103	304	59				183	308	151				118	444	39				67	845	277			
Saturation Flow Module:																								
Sat/Lane:	1600	1600	1600				1600	1600	1600				1600	1600	1600				1600	1600	1600			
Adjustment:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
Lanes:	1.00	2.00	1.00				2.00	1.34	0.66				1.00	2.76	0.24				1.00	2.26	0.74			
Final Sat.:	1600	3200	1600				3200	2145	1055				1600	4409	391				1600	3617	1183			
Capacity Analysis Module:																								
Vol/Sat:	0.06	0.09	0.04				0.06	0.14	0.14				0.07	0.10	0.10				0.04	0.23	0.23			
Crit Moves:	****							****					****							****				

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #119 Arrow/SR-57 sb Off-Ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.608
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:		Ovl			Include			Include			Include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	0 0	1	1 1	0 0	1	0 1	1 1	0	1 0	2 1	0
Volume Module: >> Count Date: 14 Jan 2004 << 0745-0845												
Base Vol:	29	0	19	151	52	160	1	386	328	58	1052	202
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	29	0	19	153	53	162	1	390	331	59	1063	204
Added Vol:	0	0	0	0	0	3	0	13	0	0	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	0	19	153	53	165	1	403	331	59	1077	204
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	0	19	153	53	165	1	403	331	59	1077	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	0	19	153	53	165	1	403	331	59	1077	204
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	0	19	153	53	165	1	403	331	59	1077	204
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	1.49	0.51	1.00	0.01	1.99	1.00	1.00	2.52	0.48
Final Sat.:	3200	0	1600	2380	820	1600	7	3193	1600	1600	4035	765
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.06	0.06	0.10	0.00	0.13	0.21	0.04	0.27	0.27
Crit Moves:			****			****		****			****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #120 Village Court/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.476
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module: >> Count Date: 13 Jan 2004 << 0745-0845												
Base Vol:	0	0	0	21	0	65	82	494	0	1	1274	51
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	0	0	21	0	66	83	499	0	1	1287	52
Added Vol:	0	0	0	0	0	1	1	6	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	21	0	67	84	505	0	1	1300	52
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	21	0	67	84	505	0	1	1300	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	21	0	67	84	505	0	1	1300	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	21	0	67	84	505	0	1	1300	52
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	0.48	0.52	1.00	1.00	3.00	0.00	1.00	2.89	0.11
Final Sat.:	0	1600	0	773	827	1600	1600	4800	0	1600	4617	183
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.04	0.05	0.11	0.00	0.00	0.28	0.28
Crit Moves:						****	****				****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #121 Bonita-SR57 nb Ramps/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.830
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 1	0	1 0	2 0	1	2 0	2 1	0	1 0	2 0	1
Volume Module: >> Count Date: 13 Jan 2004 << 0715-0815												
Base Vol:	532	227	150	35	57	397	122	259	58	67	436	9
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	537	229	152	35	58	401	123	262	59	68	440	9
Added Vol:	6	0	0	0	0	1	1	5	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	543	229	152	35	58	402	124	267	59	68	445	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	543	229	152	35	58	402	124	267	59	68	445	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	543	229	152	35	58	402	124	267	59	68	445	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	543	229	152	35	58	402	124	267	59	68	445	9
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.67	0.33	1.00	2.00	1.00	2.00	2.46	0.54	1.00	2.00	1.00
Final Sat.:	1600	1075	525	1600	3200	1600	3200	3935	865	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.34	0.21	0.29	0.02	0.02	0.25	0.04	0.07	0.07	0.04	0.14	0.01
Crit Moves:	****					****	****				****	

Appendix C (continued)

Analysis Worksheets
Ambient Growth + Project – PM Peak

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Lone Hill/Route 66-Foothill Blvd.

Cycle (sec):	100	Critical Vol./Cap. (X):	0.882
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	92	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T	- R		L - T	- R		L - T	- R		L - T	- R	
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	1 1	0	1 0	2 0	1	1 0	2 0	1	2 0	1 1	0
Volume Module: >> Count Date: 11 Jun 2003 << 430-530pm												
Base Vol:	543	499	145	145	321	57	132	906	881	274	523	74
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	548	504	146	146	324	58	133	915	890	277	528	75
Added Vol:	24	6	11	0	6	0	0	0	24	11	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	572	510	157	146	330	58	133	915	914	288	528	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	572	510	157	146	330	58	133	915	914	288	528	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	572	510	157	146	330	58	133	915	914	288	528	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	572	510	157	146	330	58	133	915	914	288	528	75
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.53	0.47	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.75	0.25
Final Sat.:	3200	2445	755	1600	3200	1600	1600	3200	1600	3200	2803	397
Capacity Analysis Module:												
Vol/Sat:	0.18	0.21	0.21	0.09	0.10	0.04	0.08	0.29	0.57	0.09	0.19	0.19
Crit Moves:		****		****					****	****		

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Amelia/Foothill

Cycle (sec):	100	Critical Vol./Cap. (X):	0.609
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 1 1 0			1 0 2 0 1			1 0 1 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 445-545												
Base Vol:	87	117	128	162	62	24	44	904	150	41	401	86
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	88	118	129	164	63	24	44	913	152	41	405	87
Added Vol:	0	6	10	0	6	3	3	8	0	10	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	88	124	139	164	69	27	47	921	152	51	413	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	88	124	139	164	69	27	47	921	152	51	413	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	124	139	164	69	27	47	921	152	51	413	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	88	124	139	164	69	27	47	921	152	51	413	87
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.43	0.57	1.00	2.00	1.00	1.00	1.65	0.35
Final Sat.:	1600	3200	1600	1600	2291	909	1600	3200	1600	1600	2644	556
Capacity Analysis Module:												
Vol/Sat:	0.05	0.04	0.09	0.10	0.03	0.03	0.03	0.29	0.09	0.03	0.16	0.16
Crit Moves:			****	****				****		****		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Lone Hill/Kenoma

Average Delay (sec/veh): 21.5 Worst Case Level Of Service: F[839.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 1 1 0			1 0 1 1 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module: >> Count Date: 14 Jan 2004 << 430-530												
Base Vol:	49	1295	17	53	1222	23	4	1	20	35	2	29
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	49	1308	17	54	1234	23	4	1	20	35	2	29
Added Vol:	3	42	3	0	41	0	0	0	3	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	1350	20	54	1275	23	4	1	23	38	2	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	1350	20	54	1275	23	4	1	23	38	2	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	52	1350	20	54	1275	23	4	1	23	38	2	29
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	1298	xxxx	xxxxx	1370	xxxx	xxxxx	2175	2869	649	2210	2871	685
Potent Cap.:	540	xxxx	xxxxx	507	xxxx	xxxxx	27	17	417	25	17	395
Move Cap.:	540	xxxx	xxxxx	507	xxxx	xxxxx	19	14	417	19	14	395
Volume/Cap:	0.10	xxxx	xxxx	0.11	xxxx	xxxx	0.22	0.07	0.06	2.01	0.15	0.07
Level Of Service Module:												
Queue:	0.3	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	12.4	xxxx	xxxxx	12.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	82	xxxxx	xxxx	31	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx	xxxxx	8.1	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	70.8	xxxxx	xxxxx	839	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			70.8			839.4		
ApproachLOS:	*			*			F			F		

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Lone Hill/Petunia

Cycle (sec):	100	Critical Vol./Cap. (X):	0.625
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 15 Jan 2004 << 400-500pm												
Base Vol:	27	1261	71	39	1153	0	13	1	27	55	3	15
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	27	1274	72	39	1165	0	13	1	27	56	3	15
Added Vol:	3	48	3	0	47	0	0	0	3	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	1322	75	39	1212	0	13	1	30	59	3	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	1322	75	39	1212	0	13	1	30	59	3	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	1322	75	39	1212	0	13	1	30	59	3	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	30	1322	75	39	1212	0	13	1	30	59	3	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.89	0.11	1.00	2.00	0.00	0.30	0.02	0.68	0.76	0.04	0.20
Final Sat.:	1600	3029	171	1600	3200	0	473	36	1091	1221	63	316
Capacity Analysis Module:												
Vol/Sat:	0.02	0.44	0.44	0.02	0.38	0.00	0.01	0.03	0.03	0.04	0.05	0.05
Crit Moves:		****		****				****		****		

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Lone Hill/SR-210 wb Ramps

Cycle (sec):	100	Critical Vol./Cap. (X):	1.402
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	1! 0	0
Volume Module: >> Count Date: 11 Jun 2003 << 430-530pm												
Base Vol:	1009	607	0	0	1157	284	0	0	0	436	0	617
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	1019	613	0	0	1169	287	0	0	0	440	0	623
Added Vol:	34	54	0	0	53	0	0	0	0	27	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1053	667	0	0	1222	287	0	0	0	467	0	623
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1053	667	0	0	1222	287	0	0	0	467	0	623
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1053	667	0	0	1222	287	0	0	0	467	0	623
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	1053	667	0	0	1222	287	0	0	0	467	0	623
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1600	3200	0	0	4800	1600	0	0	0	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.66	0.21	0.00	0.00	0.25	0.18	0.00	0.00	0.00	0.29	0.00	0.39
Crit Moves:	****				****							****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Lone Hill/SR-210 eb Ramps

Cycle (sec):	100	Critical Vol./Cap. (X):	0.850
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	80	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 3	0	1	1 0 3	0	0	1 0 0	1	0	0 0 0	0	0
Volume Module: >> Count Date: 13 Jan 2004 << 430-530												
Base Vol:	0 1212	458		326 1266		0	376	6	331	0	0	0
Growth Adj:	1.01 1.01	1.01		1.01 1.01		1.01	1.01 1.01		1.01	1.01 1.01		1.01
Initial Bse:	0 1224	463		329 1279		0	380	6	334	0	0	0
Added Vol:	0 88	28		0 81		0	0	0	27	0	0	0
PasserByVol:	0 0	0		0 0		0	0	0	0	0	0	0
Initial Fut:	0 1312	491		329 1360		0	380	6	361	0	0	0
User Adj:	1.00 1.00	1.00		1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Adj:	1.00 1.00	1.00		1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Volume:	0 1312	491		329 1360		0	380	6	361	0	0	0
Reduct Vol:	0 0	0		0 0		0	0	0	0	0	0	0
Reduced Vol:	0 1312	491		329 1360		0	380	6	361	0	0	0
PCE Adj:	1.00 1.00	1.00		1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
MLF Adj:	1.00 1.00	1.00		1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
Final Vol.:	0 1312	491		329 1360		0	380	6	361	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600		1600	1600 1600		1600	1600 1600		1600
Adjustment:	1.00 1.00	1.00		1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
Lanes:	0.00 3.00	1.00		1.00 3.00		0.00	1.00 0.02		0.98	0.00 0.00		0.00
Final Sat.:	0 4800	1600		1600 4800		0	1600 26		1574	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00 0.27	0.31		0.21 0.28		0.00	0.24 0.23		0.23	0.00 0.00		0.00
Crit Moves:		****		****			****					

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Lone Hill/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.924
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	114	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 2	0	1	2 0 2	0	0	0 0 0	0	0	1 0 1!	0	1
Volume Module: >> Count Date: 11 Jun 2003 << 400-500pm												
Base Vol:	0 1110	530	639	975	0	0	0	0	428	0	641	
Growth Adj:	1.01 1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	
Initial Bse:	0 1121	535	645	985	0	0	0	0	432	0	647	
Added Vol:	0 115	55	0	108	0	0	0	0	55	0	0	
PasserByVol:	0 0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	0 1236	590	645	1093	0	0	0	0	487	0	647	
User Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	0 1236	590	645	1093	0	0	0	0	487	0	647	
Reduct Vol:	0 0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0 1236	590	645	1093	0	0	0	0	487	0	647	
PCE Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	0 1236	590	645	1093	0	0	0	0	487	0	647	
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	0.00 2.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.28	0.01	1.71	
Final Sat.:	0 3200	1600	3200	3200	0	0	0	0	2061	0	2739	
Capacity Analysis Module:												
Vol/Sat:	0.00 0.39	0.37	0.20	0.34	0.00	0.00	0.00	0.00	0.24	0.00	0.24	
Crit Moves:	****		****						****			

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 WalMart Dwy/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.575
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module: >> Count Date: 13 Jan 2004 << 430-530 pm												
Base Vol:	244	0	102	0	0	0	0	673	45	119	674	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	246	0	103	0	0	0	0	680	45	120	681	0
Added Vol:	3	0	0	0	0	0	0	52	3	0	52	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	249	0	103	0	0	0	0	732	48	120	733	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	249	0	103	0	0	0	0	732	48	120	733	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	249	0	103	0	0	0	0	732	48	120	733	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	249	0	103	0	0	0	0	732	48	120	733	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.88	0.12	1.00	2.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	3001	199	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.16	0.00	0.06	0.00	0.00	0.00	0.00	0.24	0.24	0.08	0.23	0.00
Crit Moves:	****							****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 SR57 NBoff/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.708
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	1	0	0	0 1	0	0	0	0 0	0	0	2	0 0	0	0	2	0 0
Volume Module: >> Count Date: 13 Jan 2004 << 445-545																
Base Vol:	685	0	393		0	0	0		0	332	0		0	456	0	
Growth Adj:	1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01	
Initial Bse:	692	0	397		0	0	0		0	335	0		0	461	0	
Added Vol:	48	0	0		0	0	0		0	4	0		0	4	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	740	0	397		0	0	0		0	339	0		0	465	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	740	0	397		0	0	0		0	339	0		0	465	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	740	0	397		0	0	0		0	339	0		0	465	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	740	0	397		0	0	0		0	339	0		0	465	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	0.00		0.00	2.00	0.00	
Final Sat.:	1600	0	1600		0	0	0		0	3200	0		0	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.46	0.00	0.25		0.00	0.00	0.00		0.00	0.11	0.00		0.00	0.15	0.00	
Crit Moves:	****								****					****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Amelia/Auto Centre-Allen

Cycle (sec):	100	Critical Vol./Cap. (X):	0.494
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 1 0			1 0 1 0 1			1 0 0 1 0			1 0 0 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 445-545 pm												
Base Vol:	44	154	41	28	130	168	209	221	69	29	155	18
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	44	156	41	28	131	170	211	223	70	29	157	18
Added Vol:	0	12	3	0	12	4	4	0	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	168	44	28	143	174	215	223	70	32	157	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	168	44	28	143	174	215	223	70	32	157	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	168	44	28	143	174	215	223	70	32	157	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	44	168	44	28	143	174	215	223	70	32	157	18
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.79	0.21	1.00	1.00	1.00	1.00	0.76	0.24	1.00	0.90	0.10
Final Sat.:	1600	1265	335	1600	1600	1600	1600	1219	381	1600	1434	166
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.02	0.09	0.11	0.13	0.18	0.18	0.02	0.11	0.11
Crit Moves:		****			****		****				****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Glendora Mktplc - East Access

Cycle (sec):	100	Critical Vol./Cap. (X):	0.565
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	1 1	0	1 0	2 0	1	2 0	0 1	0	0 0	1! 0	0
Volume Module: >> Count Date: 15 Jan 2004 << 445-545 pm												
Base Vol:	99	912	0	4	756	393	376	0	134	3	0	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	100	921	0	4	764	397	380	0	135	3	0	1
Added Vol:	0	171	0	0	163	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	1092	0	4	927	397	380	0	135	3	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	100	1092	0	4	927	397	380	0	135	3	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	1092	0	4	927	397	380	0	135	3	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	100	1092	0	4	927	397	380	0	135	3	0	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	1.00	2.00	1.00	2.00	0.00	1.00	0.75	0.00	0.25
Final Sat.:	3200	3200	0	1600	3200	1600	3200	0	1600	1200	0	400
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.00	0.00	0.29	0.25	0.12	0.00	0.08	0.00	0.00	0.00
Crit Moves:		****		****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Sunflower/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.527
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1 1 0			1 0 1 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 500-600												
Base Vol:	44	290	118	113	288	83	92	443	89	69	315	65
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	44	293	119	114	291	84	93	447	90	70	318	66
Added Vol:	0	0	9	5	0	0	0	12	0	9	12	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	293	128	119	291	84	93	459	90	79	330	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	293	128	119	291	84	93	459	90	79	330	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	293	128	119	291	84	93	459	90	79	330	72
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	44	293	128	119	291	84	93	459	90	79	330	72
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.39	0.61	1.00	1.55	0.45	1.00	1.67	0.33	1.00	1.64	0.36
Final Sat.:	1600	2226	974	1600	2484	716	1600	2676	524	1600	2629	571
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.07	0.12	0.12	0.06	0.17	0.17	0.05	0.13	0.13
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #13 Willow/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.500
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	12.0
Optimal Cycle:	0	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1!	0 0		0 0 1!	0 0		0 1 0	1 0		0 1 0	1 0	
Volume Module: >> Count Date: 13 Jan 2004 << 500-600 pm												
Base Vol:	12	5	12	27	1	22	40	568	30	14	399	35
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	12	5	12	27	1	22	40	574	30	14	403	35
Added Vol:	0	0	3	3	0	0	0	26	0	3	27	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	5	15	30	1	22	40	600	30	17	430	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	5	15	30	1	22	40	600	30	17	430	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	5	15	30	1	22	40	600	30	17	430	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	12	5	15	30	1	22	40	600	30	17	430	38
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.37	0.16	0.47	0.57	0.02	0.41	0.12	1.79	0.09	0.07	1.77	0.16
Final Sat.:	208	87	260	315	11	232	81	1214	62	46	1157	105
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.10	0.10	0.10	0.50	0.49	0.49	0.38	0.37	0.37
Crit Moves:		****		****			****			****		
Delay/Veh:	9.3	9.3	9.3	9.6	9.6	9.6	13.1	12.8	12.6	11.3	11.2	11.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.3	9.3	9.3	9.6	9.6	9.6	13.1	12.8	12.6	11.3	11.2	11.0
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
ApproachDel:	9.3			9.6			12.8			11.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.3			9.6			12.8			11.2		
LOS by Appr:	A			A			B			B		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #114 Valley Center/Gladstone

Cycle (sec): 100 Critical Vol./Cap. (X): 0.538
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1!	0 0		0 0 1!	0 0		0 1 0	1 0		0 1 0	1 0	
Volume Module: >> Count Date: 14 Jan 2004 << 445-545 pm												
Base Vol:	42	15	164	26	8	12	18	506	56	127	373	30
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	42	15	166	26	8	12	18	511	57	128	377	30
Added Vol:	0	0	3	3	0	0	0	32	0	3	34	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	42	15	169	29	8	12	18	543	57	131	411	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	42	15	169	29	8	12	18	543	57	131	411	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	15	169	29	8	12	18	543	57	131	411	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	42	15	169	29	8	12	18	543	57	131	411	33
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.19	0.07	0.74	0.59	0.16	0.25	0.06	1.76	0.18	0.46	1.43	0.11
Final Sat.:	106	38	423	278	77	115	34	1022	108	252	814	67
Capacity Analysis Module:												
Vol/Sat:	0.40	0.40	0.40	0.11	0.11	0.11	0.54	0.53	0.52	0.52	0.50	0.50
Crit Moves:		****		****			****			****		
Delay/Veh:	12.7	12.7	12.7	10.6	10.6	10.6	15.5	15.2	14.9	15.5	14.8	14.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.7	12.7	12.7	10.6	10.6	10.6	15.5	15.2	14.9	15.5	14.8	14.4
LOS by Move:	B	B	B	B	B	B	C	C	B	C	B	B
ApproachDel:	12.7			10.6			15.2			15.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.7			10.6			15.2			15.0		
LOS by Appr:	B			B			C			B		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #115 Shellman/Gladstone

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[12.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 1 1 0			0 1 1 0 0		
Volume Module: >> Count Date: 14 Jan 2004 << 445-545												
Base Vol:	3	0	19	0	0	0	0	716	5	16	532	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	3	0	19	0	0	0	0	723	5	16	537	0
Added Vol:	0	0	0	0	0	0	0	38	0	0	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	0	19	0	0	0	0	761	5	16	577	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	19	0	0	0	0	761	5	16	577	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	3	0	19	0	0	0	0	761	5	16	577	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1085	xxxx	383	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	766	xxxx	xxxxx
Potent Cap.:	215	xxxx	621	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	856	xxxx	xxxxx
Move Cap.:	211	xxxx	621	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	856	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	491	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd StpDel:	xxxxx	12.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	12.7			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #116 Lone Hill/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.687
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 2 0 1			2 0 1 0 1			1 0 1 0 1		
Volume Module: >> Count Date: 13 Jan 2004 << 415-515 pm												
Base Vol:	71	645	176	109	509	253	258	293	111	98	194	101
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	72	651	178	110	514	256	261	296	112	99	196	102
Added Vol:	36	142	7	28	134	0	0	3	35	7	3	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	108	793	185	138	648	256	261	299	147	106	199	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	108	793	185	138	648	256	261	299	147	106	199	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	793	185	138	648	256	261	299	147	106	199	131
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	108	793	185	138	648	256	261	299	147	106	199	131
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	3200	1600	1600	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.25	0.12	0.09	0.20	0.16	0.08	0.19	0.09	0.07	0.12	0.08
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #117 Amelia/Gladstone

Cycle (sec): 100 Critical Vol./Cap. (X): 0.542
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Street Name:	Amelia Ave						Gladstone					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module: >> Count Date: 13 Jan 2004 << 445-545 pm												
Base Vol:	6	8	7	100	17	115	156	423	9	13	153	72
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	6	8	7	101	17	116	158	427	9	13	155	73
Added Vol:	0	0	0	0	0	15	15	3	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	8	7	101	17	131	173	430	9	13	158	73
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	8	7	101	17	131	173	430	9	13	158	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	8	7	101	17	131	173	430	9	13	158	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	6	8	7	101	17	131	173	430	9	13	158	73
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.29	0.38	0.33	0.40	0.07	0.53	1.00	0.98	0.02	1.00	0.68	0.32
Final Sat.:	457	610	533	648	110	842	1600	1567	33	1600	1095	505
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.06	0.16	0.16	0.11	0.27	0.27	0.01	0.14	0.14
Crit Moves:	****				****			****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #118 Lone Hill/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.703
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	1	0 2	0 1		2	0 1	1 0		1	0 2	1 0		1	0 2	1 0	
Volume Module: >> Count Date: 15 Jan 2004 << 445-545 pm																
Base Vol:	150	387	102		358	354	160		186	872	77		121	705	216	
Growth Adj:	1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01	
Initial Bse:	152	391	103		362	358	162		188	881	78		122	712	218	
Added Vol:	0	21	0		34	21	21		21	0	0		0	0	41	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	152	412	103		396	379	183		209	881	78		122	712	259	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	152	412	103		396	379	183		209	881	78		122	712	259	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	152	412	103		396	379	183		209	881	78		122	712	259	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	152	412	103		396	379	183		209	881	78		122	712	259	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		2.00	1.35	0.65		1.00	2.76	0.24		1.00	2.20	0.80	
Final Sat.:	1600	3200	1600		3200	2159	1041		1600	4411	389		1600	3519	1281	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.13	0.06		0.12	0.18	0.18		0.13	0.20	0.20		0.08	0.20	0.20	
Crit Moves:	****					****			****					****		

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #119 Arrow/SR-57 sb Off-Ramp

Cycle (sec):	100	Critical Vol./Cap. (X):	0.709
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2	0	0	0 1	1	1	0	0 1	0	0	2	1 0	1	0	2	1 0
Volume Module: >> Count Date: 14 Jan 2004 << 445-545 pm																
Base Vol:	170	0	123	218	127	193	0	999	291	200	958	332				
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01				
Initial Bse:	172	0	124	220	128	195	0	1009	294	202	968	335				
Added Vol:	0	0	0	0	0	7	0	34	0	0	34	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	172	0	124	220	128	202	0	1043	294	202	1002	335				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	172	0	124	220	128	202	0	1043	294	202	1002	335				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	172	0	124	220	128	202	0	1043	294	202	1002	335				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Final Vol.:	172	0	124	220	128	202	0	1043	294	202	1002	335				
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600				
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Lanes:	2.00	0.00	1.00	1.26	0.74	1.00	0.00	2.34	0.66	1.00	2.25	0.75				
Final Sat.:	3200	0	1600	2022	1178	1600	0	3745	1055	1600	3596	1204				
Capacity Analysis Module:																
Vol/Sat:	0.05	0.00	0.08	0.11	0.11	0.13	0.00	0.28	0.28	0.13	0.28	0.28				
Crit Moves:			****			****		****		****						

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #120 Village Court/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.592
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Permitted						Permitted						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	
Lanes:	0	1	0	0	0		0	1	0	1	0		1	0	2	1	0		1	0	2	1	0	
Volume Module: >> Count Date: 13 Jan 2004 << 500-600 pm																								
Base Vol:	3	1	0	44	0		150	139	1234	2	7		1331	81										
Growth Adj:	1.01	1.01	1.01	1.01	1.01		1.01	1.01	1.01	1.01	1.01		1.01	1.01										
Initial Bse:	3	1	0	44	0		152	140	1246	2	7		1344	82										
Added Vol:	0	0	0	0	0		3	3	15	0	0		31	0										
PasserByVol:	0	0	0	0	0		0	0	0	0	0		0	0										
Initial Fut:	3	1	0	44	0		155	143	1261	2	7		1375	82										
User Adj:	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00										
PHF Adj:	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00										
PHF Volume:	3	1	0	44	0		155	143	1261	2	7		1375	82										
Reduct Vol:	0	0	0	0	0		0	0	0	0	0		0	0										
Reduced Vol:	3	1	0	44	0		155	143	1261	2	7		1375	82										
PCE Adj:	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00										
MLF Adj:	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00										
Final Vol.:	3	1	0	44	0		155	143	1261	2	7		1375	82										
Saturation Flow Module:																								
Sat/Lane:	1600	1600	1600	1600	1600		1600	1600	1600	1600	1600		1600	1600										
Adjustment:	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00										
Lanes:	0.75	0.25	0.00	0.45	0.55		1.00	1.00	2.99	0.01	1.00		2.83	0.17										
Final Sat.:	1200	400	0	715	885		1600	1600	4792	8	1600		4531	269										
Capacity Analysis Module:																								
Vol/Sat:	0.00	0.00	0.00	0.03	0.00		0.10	0.09	0.26	0.26	0.00		0.30	0.30										
Crit Moves:	****						****	****					****											

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #121 Bonita-SR57 nb Ramps/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	1.055
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 1	0	1	0 2	0 1	2	0 2	1 0	1	0 2	0 1
Volume Module: >> Count Date: 13 Jan 2004 << 500-600												
Base Vol:	581	433	196	135	253	257	721	672	111	500	677	14
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	587	437	198	136	256	260	728	679	112	505	684	14
Added Vol:	16	0	0	0	0	3	3	12	0	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	603	437	198	136	256	263	731	691	112	505	696	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	603	437	198	136	256	263	731	691	112	505	696	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	603	437	198	136	256	263	731	691	112	505	696	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	603	437	198	136	256	263	731	691	112	505	696	14
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.97	0.71	0.32	1.00	2.00	1.00	2.00	2.58	0.42	1.00	2.00	1.00
Final Sat.:	1558	1130	512	1600	3200	1600	3200	4130	670	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.39	0.39	0.39	0.09	0.08	0.16	0.23	0.17	0.17	0.32	0.22	0.01
Crit Moves:			****	****				****		****		

Appendix C (continued)

Analysis Worksheets

Ambient Growth + Project – Saturday Mid-Day Peak

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Lone Hill/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.828
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 2	0	1	2 0 2	0	0	0 0 0	0	0	1 0 1!	0	1
Volume Module: >> Count Date: 10 Jan 2004 << 1215-1315												
Base Vol:	0	973	401	538	924	0	0	0	0	377	0	508
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	983	405	543	933	0	0	0	0	381	0	513
Added Vol:	0	155	75	0	154	0	0	0	0	78	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1138	480	543	1087	0	0	0	0	459	0	513
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1138	480	543	1087	0	0	0	0	459	0	513
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1138	480	543	1087	0	0	0	0	459	0	513
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1138	480	543	1087	0	0	0	0	459	0	513
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.42	xxxx	1.58
Final Sat.:	0	3200	1600	3200	3200	0	0	0	0	2266	0	2534
Capacity Analysis Module:												
Vol/Sat:	0.00	0.36	0.30	0.17	0.34	0.00	0.00	0.00	0.00	0.20	0.00	0.20
Crit Moves:		****		****								****

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Glendora Mktplc - East Access

Cycle (sec):	100	Critical Vol./Cap. (X):	0.636
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	1 1	0	1 0	2 0	1	2 0	0 1	0	0 0	1! 0	0
Volume Module: >> Count Date: 10 Jan 2004 << 1230-1330												
Base Vol:	192	679	0	3	679	678	598	0	197	0	0	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	194	686	0	3	686	685	604	0	199	0	0	0
Added Vol:	0	230	0	0	233	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	194	916	0	3	919	685	604	0	199	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	194	916	0	3	919	685	604	0	199	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	916	0	3	919	685	604	0	199	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	194	916	0	3	919	685	604	0	199	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	1.00	2.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00
Final Sat.:	3200	3200	0	1600	3200	1600	3200	0	1600	0	1600	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.29	0.00	0.00	0.29	0.43	0.19	0.00	0.12	0.00	0.00	0.00
Crit Moves:	****				****		****					

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #115 Shellman/Gladstone

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[11.6]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	0	0	0		0	0	1	1	0		0	1	1	0	0	
Volume Module: >> Count Date: 10 Jan 2004 << 1245-1345																								
Base Vol:	6		0		21		0		0		0		0		454		8		14		467		0	
Growth Adj:	1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01	
Initial Bse:	6		0		21		0		0		0		0		459		8		14		472		0	
Added Vol:	0		0		0		0		0		0		0		54		0		0		53		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	6		0		21		0		0		0		0		513		8		14		525		0	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	6		0		21		0		0		0		0		513		8		14		525		0	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	6		0		21		0		0		0		0		513		8		14		525		0	
Critical Gap Module:																								
Critical Gp:	6.8	xxxx			6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								4.1	xxxx	xxxxx			
FollowUpTim:	3.5	xxxx			3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	807	xxxx			260	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								521	xxxx	xxxxx			
Potent Cap.:	323	xxxx			745	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								1056	xxxx	xxxxx			
Move Cap.:	320	xxxx			745	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								1056	xxxx	xxxxx			
Volume/Cap:	0.02	xxxx			0.03	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx								0.01	xxxx	xxxx			
Level Of Service Module:																								
Queue:	xxxxx	xxxx			xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								0.0	xxxx	xxxxx			
Stopped Del:	xxxxx	xxxx			xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								8.5	xxxx	xxxxx			
LOS by Move:	*		*		*	*	*	*	*	*	*								A	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		575		xxxxx		xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		0.1		xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							0.0	xxxx	xxxxx			
Shrd StpDel:	xxxxx		11.6		xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							8.5	xxxx	xxxxx			
Shared LOS:	*		B		*		*	*	*	*	*								A	*	*			
ApproachDel:			11.6				xxxxxx				xxxxxx								xxxxxx					
ApproachLOS:			B						*						*						*			

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #116 Lone Hill/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.953
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	136	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 2 0 1			2 0 1 0 1			1 0 1 0 1		
Volume Module: >> Count Date: 10 Jan 2004 << 1245-1345												
Base Vol:	185	888	65	298	951	154	474	274	107	120	232	81
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	187	897	66	301	961	156	479	277	108	121	234	82
Added Vol:	49	191	9	41	192	0	0	5	50	9	5	39
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	236	1088	75	342	1153	156	479	282	158	130	239	121
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	236	1088	75	342	1153	156	479	282	158	130	239	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	1088	75	342	1153	156	479	282	158	130	239	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	236	1088	75	342	1153	156	479	282	158	130	239	121
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	3200	1600	1600	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.15	0.34	0.05	0.21	0.36	0.10	0.15	0.18	0.10	0.08	0.15	0.08
Crit Moves:		****		****			****				****	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #117 Amelia/Gladstone

Cycle (sec): 100 Critical Vol./Cap. (X): 0.422
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 30 Level Of Service: A

Street Name:	Amelia Ave						Gladstone					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1!	0 0		0 0 1!	0 0		1 0 0	1 0		1 0 0	1 0	
Volume Module: >> Count Date: 10 Jan 2004 << 1230-1330												
Base Vol:	13	10	13	60	2	51	68	299	10	6	225	45
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	13	10	13	61	2	52	69	302	10	6	227	45
Added Vol:	0	0	0	0	0	22	21	4	0	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	10	13	61	2	74	90	306	10	6	231	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	10	13	61	2	74	90	306	10	6	231	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	10	13	61	2	74	90	306	10	6	231	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	13	10	13	61	2	74	90	306	10	6	231	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.36	0.28	0.36	0.45	0.01	0.54	1.00	0.97	0.03	1.00	0.84	0.16
Final Sat.:	578	444	578	712	24	864	1600	1549	51	1600	1337	263
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.04	0.09	0.09	0.06	0.20	0.20	0.00	0.17	0.17
Crit Moves:	****				****		****				****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #118 Lone Hill/Arrow

Cycle (sec): 100 Critical Vol./Cap. (X): 0.686
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	2	0	1	1	0	1	0	2	1	0	1	0	2	1	0
Volume Module: >> Count Date: 10 Jan 2004 << 1300-1400																				
Base Vol:	85	267		86		337	242		137		199	618		32		103	608		301	
Growth Adj:	1.01	1.01		1.01		1.01	1.01		1.01		1.01	1.01		1.01		1.01	1.01		1.01	
Initial Bse:	86	270		87		340	244		138		201	624		32		104	614		304	
Added Vol:	0	30		0		46	29		29		30	0		0		0	0		59	
PasserByVol:	0	0		0		0	0		0		0	0		0		0	0		0	
Initial Fut:	86	300		87		386	273		167		231	624		32		104	614		363	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
PHF Volume:	86	300		87		386	273		167		231	624		32		104	614		363	
Reduct Vol:	0	0		0		0	0		0		0	0		0		0	0		0	
Reduced Vol:	86	300		87		386	273		167		231	624		32		104	614		363	
PCE Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
MLF Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Final Vol.:	86	300		87		386	273		167		231	624		32		104	614		363	
Saturation Flow Module:																				
Sat/Lane:	1600	1600		1600		1600	1600		1600		1600	1600		1600		1600	1600		1600	
Adjustment:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Lanes:	1.00	2.00		1.00		2.00	1.24		0.76		1.00	2.85		0.15		1.00	2.00		1.00	
Final Sat.:	1600	3200		1600		3200	1985		1215		1600	4564		236		1600	3200		1600	
Capacity Analysis Module:																				
Vol/Sat:	0.05	0.09		0.05		0.12	0.14		0.14		0.14	0.14		0.14		0.07	0.19		0.23	
Crit Moves:		****				****					****								****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #119 Arrow/SR-57 sb Off-Ramp

Cycle (sec):	100	Critical Vol./Cap. (X):	0.813
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	2	0	0	0 1	1	1	0	0 1	0	0	2	1 0	1	0	3	0 0
Volume Module: >> Count Date: 10 Jan 2004 << 1300-1400																
Base Vol:	250	0	131		199	201	140		0	1233	209		301	1003	0	
Growth Adj:	1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01	
Initial Bse:	253	0	132		201	203	141		0	1245	211		304	1013	0	
Added Vol:	0	0	0		0	0	10		0	46	0		0	49	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	253	0	132		201	203	151		0	1291	211		304	1062	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	253	0	132		201	203	151		0	1291	211		304	1062	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	253	0	132		201	203	151		0	1291	211		304	1062	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	253	0	132		201	203	151		0	1291	211		304	1062	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		1.00	1.00	1.00		0.00	2.58	0.42		1.00	3.00	0.00	
Final Sat.:	3200	0	1600		1600	1600	1600		0	4126	674		1600	4800	0	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.00	0.08		0.13	0.13	0.09		0.00	0.31	0.31		0.19	0.22	0.00	
Crit Moves:			****			****				****			****			

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #120 Village Court/Arrow

Cycle (sec): 100 Critical Vol./Cap. (X): 0.715
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1!	0 0		0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module: >> Count Date: 10 Jan 2004 << 1300-1400												
Base Vol:	3	0	2	115	2	202	240	951	1	7	1366	153
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	3	0	2	116	2	204	242	961	1	7	1380	155
Added Vol:	0	0	0	0	0	4	4	21	0	0	44	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	0	2	116	2	208	246	982	1	7	1424	155
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	2	116	2	208	246	982	1	7	1424	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	0	2	116	2	208	246	982	1	7	1424	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	3	0	2	116	2	208	246	982	1	7	1424	155
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.60	0.00	0.40	0.71	0.29	1.00	1.00	2.99	0.01	1.00	2.71	0.29
Final Sat.:	960	0	640	1139	461	1600	1600	4795	5	1600	4330	470
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.13	0.15	0.20	0.20	0.00	0.33	0.33
Crit Moves:	****					****	****				****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #121 Bonita-SR57 nb Ramps/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.843
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 1	0	1 0	2 0	1	2 0	2 1	0	1 0	2 0	1
Volume Module: >> Count Date: 10 Jan 2004 << 100-200												
Base Vol:	374	197	120	100	140	509	330	490	223	138	519	49
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	378	199	121	101	141	514	333	495	225	139	524	49
Added Vol:	23	0	0	0	0	4	4	16	0	0	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	401	199	121	101	141	518	337	511	225	139	541	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	401	199	121	101	141	518	337	511	225	139	541	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	401	199	121	101	141	518	337	511	225	139	541	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	401	199	121	101	141	518	337	511	225	139	541	49
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.66	0.34	1.00	2.00	1.00	2.00	2.08	0.92	1.00	2.00	1.00
Final Sat.:	1600	1062	538	1600	3200	1600	3200	3331	1469	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.25	0.19	0.23	0.06	0.04	0.32	0.11	0.15	0.15	0.09	0.17	0.03
Crit Moves:	****					****	****				****	

Appendix C (continued)

Analysis Worksheets

Ambient Growth + Related/Area Projects + Project – AM Peak

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Lone Hill/Route 66-Foothill Blvd.

Cycle (sec):	100	Critical Vol./Cap. (X):	0.839
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 1	1 0		1 0 2	0 1		1 0 2	0 1		2 0 1	1 0	
Volume Module: >> Count Date: 14 Jan 2004 << 0730-0830												
Base Vol:	510	427	210	169	546	142	95	442	563	154	845	127
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	515	431	212	171	551	143	96	446	569	156	853	128
Added Vol:	31	32	22	11	76	5	2	10	45	43	10	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	546	463	234	182	627	148	98	456	614	199	863	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	546	463	234	182	627	148	98	456	614	199	863	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	546	463	234	182	627	148	98	456	614	199	863	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	546	463	234	182	627	148	98	456	614	199	863	132
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.33	0.67	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.73	0.27
Final Sat.:	3200	2126	1074	1600	3200	1600	1600	3200	1600	3200	2775	425
Capacity Analysis Module:												
Vol/Sat:	0.17	0.22	0.22	0.11	0.20	0.09	0.06	0.14	0.38	0.06	0.31	0.31
Crit Moves:	****				****		****				****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Amelia/Foothill

Cycle (sec):	100	Critical Vol./Cap. (X):	0.610
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 1 1 0			1 0 2 0 1			1 0 1 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 0730-0830												
Base Vol:	200	125	42	90	145	32	38	284	127	81	712	88
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	202	126	42	91	146	32	38	287	128	82	719	89
Added Vol:	1	34	4	8	62	43	20	21	2	4	14	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	203	160	46	99	208	75	58	308	130	86	733	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	203	160	46	99	208	75	58	308	130	86	733	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	203	160	46	99	208	75	58	308	130	86	733	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	203	160	46	99	208	75	58	308	130	86	733	93
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.47	0.53	1.00	2.00	1.00	1.00	1.78	0.22
Final Sat.:	1600	3200	1600	1600	2351	849	1600	3200	1600	1600	2840	360
Capacity Analysis Module:												
Vol/Sat:	0.13	0.05	0.03	0.06	0.09	0.09	0.04	0.10	0.08	0.05	0.26	0.26
Crit Moves:	****				****		****				****	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Lone Hill/Kenoma

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: F[51.1]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1 0	1 1	0		1 0	1 1	0		0 0	1! 0	0		0 0	1! 0	0	
Volume Module: >> Count Date: 14 Jan 2004 << 0730-0830																
Base Vol:	16	1135	10		28	1122	33		6	1	38		2	1	32	
Growth Adj:	1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01	
Initial Bse:	16	1146	10		28	1133	33		6	1	38		2	1	32	
Added Vol:	2	84	2		2	160	2		1	0	3		3	0	1	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	18	1230	12		30	1293	35		7	1	41		5	1	33	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	18	1230	12		30	1293	35		7	1	41		5	1	33	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	18	1230	12		30	1293	35		7	1	41		5	1	33	
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx		7.5	6.5	6.9		7.5	6.5	6.9	
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx		3.5	4.0	3.3		3.5	4.0	3.3	
Capacity Module:																
Cnflict Vol:	1329	xxxx	xxxxx		1242	xxxx	xxxxx		2023	2650	664		1980	2662	621	
Potent Cap.:	526	xxxx	xxxxx		567	xxxx	xxxxx		35	23	408		37	23	435	
Move Cap.:	526	xxxx	xxxxx		567	xxxx	xxxxx		29	21	408		30	21	435	
Volume/Cap:	0.03	xxxx	xxxx		0.05	xxxx	xxxx		0.24	0.05	0.10		0.17	0.05	0.08	
Level Of Service Module:																
Queue:	0.1	xxxx	xxxxx		0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Stopped Del:	12.1	xxxx	xxxxx		11.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	B	*	*		B	*	*	*	*	*	*	*	*			
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	126	xxxxx		xxxx	136	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	1.7	xxxxx		xxxxx	1.1	xxxxx	
Shrd StpDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	51.1	xxxxx		xxxxx	42.1	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	F	*		*	E	*	
ApproachDel:	xxxxxx				xxxxxx				51.1				42.1			
ApproachLOS:	*				*				F				E			

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Lone Hill/Petunia

Cycle (sec):	100	Critical Vol./Cap. (X):	0.593
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module: >> Count Date: 15 Jan 2004 << 0730-0830												
Base Vol:	6	1111	24	22	1103	6	27	20	21	71	11	46
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	6	1122	24	22	1114	6	27	20	21	72	11	46
Added Vol:	2	87	2	2	163	2	1	0	3	3	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	1209	26	24	1277	8	28	20	24	75	11	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	1209	26	24	1277	8	28	20	24	75	11	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	1209	26	24	1277	8	28	20	24	75	11	47
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	8	1209	26	24	1277	8	28	20	24	75	11	47
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.96	0.04	1.00	1.99	0.01	0.39	0.28	0.33	0.56	0.08	0.36
Final Sat.:	1600	3132	68	1600	3180	20	622	445	533	897	133	570
Capacity Analysis Module:												
Vol/Sat:	0.01	0.39	0.39	0.02	0.40	0.40	0.02	0.05	0.05	0.05	0.08	0.08
Crit Moves:		****		****				****		****		

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Lone Hill/SR-210 wb Ramps

Cycle (sec):	100	Critical Vol./Cap. (X):	1.042
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	1! 0	0
Volume Module: >> Count Date: 14 Jan 2004 << 0730-0830												
Base Vol:	578	531	0	0	983	236	0	0	0	275	0	492
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	584	536	0	0	993	238	0	0	0	278	0	497
Added Vol:	30	72	0	0	136	34	0	0	0	53	0	20
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	614	608	0	0	1129	272	0	0	0	331	0	517
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	614	608	0	0	1129	272	0	0	0	331	0	517
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	614	608	0	0	1129	272	0	0	0	331	0	517
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	614	608	0	0	1129	272	0	0	0	331	0	517
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1600	3200	0	0	4800	1600	0	0	0	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.38	0.19	0.00	0.00	0.24	0.17	0.00	0.00	0.00	0.21	0.00	0.32
Crit Moves:	****				****							****

San Dimas - Costco Commercial Complex
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Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Lone Hill/SR-210 eb Ramps

Cycle (sec):	100	Critical Vol./Cap. (X):	0.761
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 3	0 1		1 0 3	0 0		1 0 0	1 0		0 0 0	0 0	
Volume Module: >> Count Date: 13 Jan 2004 << 0730-0830												
Base Vol:	0	752	254	273	969	0	449	1	381	0	0	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	760	257	276	979	0	453	1	385	0	0	0
Added Vol:	0	88	32	32	157	0	14	0	38	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	848	289	308	1136	0	467	1	423	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	848	289	308	1136	0	467	1	423	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	848	289	308	1136	0	467	1	423	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	848	289	308	1136	0	467	1	423	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	3.00	0.00	1.00	0.01	0.99	0.00	0.00	0.00
Final Sat.:	0	4800	1600	1600	4800	0	1600	4	1596	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.18	0.19	0.24	0.00	0.29	0.26	0.26	0.00	0.00	0.00
Crit Moves:		****		****			****					

San Dimas - Costco Commercial Complex
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Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Lone Hill/Auto Centre

Cycle (sec): 100 Critical Vol./Cap. (X): 0.658
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 2	0	1	2 0 2	0	0	0 0 0	0	0	1 0 1!	0	1
Volume Module: >> Count Date: 14 Jan 2004 << 0730-0830												
Base Vol:	0	523	191	618	774	0	0	0	0	225	0	417
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	528	193	624	782	0	0	0	0	227	0	421
Added Vol:	0	129	55	25	140	0	0	0	0	69	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	657	248	649	922	0	0	0	0	296	0	424
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	657	248	649	922	0	0	0	0	296	0	424
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	657	248	649	922	0	0	0	0	296	0	424
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	657	248	649	922	0	0	0	0	296	0	424
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.23	0.01	1.76
Final Sat.:	0	3200	1600	3200	3200	0	0	0	0	1974	0	2826
Capacity Analysis Module:												
Vol/Sat:	0.00	0.21	0.15	0.20	0.29	0.00	0.00	0.00	0.00	0.15	0.00	0.15
Crit Moves:		****		****								****

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 WalMart Dwy/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.443
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module: >> Count Date: 13 Jan 2004 << 0730-0830												
Base Vol:	86	0	52	0	0	0	0	667	22	67	563	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	87	0	53	0	0	0	0	674	22	68	569	0
Added Vol:	6	0	0	0	0	0	0	75	5	0	66	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	93	0	53	0	0	0	0	749	27	68	635	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	93	0	53	0	0	0	0	749	27	68	635	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	0	53	0	0	0	0	749	27	68	635	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	93	0	53	0	0	0	0	749	27	68	635	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.93	0.07	1.00	2.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	3088	112	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.03	0.00	0.00	0.00	0.00	0.24	0.24	0.04	0.20	0.00
Crit Moves:	****							****		****		

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 SR57 NBoff/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.539
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	1 0	0 0	1		0 0	0 0	0		0 0	2 0	0		0 0	2 0	0	
Volume Module: >> Count Date: 13 Jan 2004 << 0730-0830																
Base Vol:	427	0	329		0	0	0		0	170	0		0	398	0	
Growth Adj:	1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01	
Initial Bse:	431	0	332		0	0	0		0	172	0		0	402	0	
Added Vol:	49	0	11		0	0	0		0	12	0		0	41	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	480	0	343		0	0	0		0	184	0		0	443	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	480	0	343		0	0	0		0	184	0		0	443	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	480	0	343		0	0	0		0	184	0		0	443	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	480	0	343		0	0	0		0	184	0		0	443	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	0.00		0.00	2.00	0.00	
Final Sat.:	1600	0	1600		0	0	0		0	3200	0		0	3200	0	
Capacity Analysis Module:																
Vol/Sat:	0.30	0.00	0.21		0.00	0.00	0.00		0.00	0.06	0.00		0.00	0.14	0.00	
Crit Moves:	****								****					****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Amelia/Auto Centre-Allen

Cycle (sec):	100	Critical Vol./Cap. (X):	0.470
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 1 0			1 0 1 0 1			1 0 0 1 0			1 0 0 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 0715-0815												
Base Vol:	87	71	52	30	135	152	154	156	106	56	58	17
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	88	72	53	30	136	154	156	158	107	57	59	17
Added Vol:	1	22	1	2	37	29	15	7	0	1	10	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	94	54	32	173	183	171	165	107	58	69	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	94	54	32	173	183	171	165	107	58	69	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	94	54	32	173	183	171	165	107	58	69	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	89	94	54	32	173	183	171	165	107	58	69	18
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.64	0.36	1.00	1.00	1.00	1.00	0.61	0.39	1.00	0.79	0.21
Final Sat.:	1600	1018	582	1600	1600	1600	1600	969	631	1600	1265	335
Capacity Analysis Module:												
Vol/Sat:	0.06	0.09	0.09	0.02	0.11	0.11	0.11	0.17	0.17	0.04	0.05	0.05
Crit Moves:	****				****			****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Glendora Mktplc - East Access

Cycle (sec): 100 Critical Vol./Cap. (X): 0.420
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 29 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 1	1 0		1 0 2	0 1		2 0 0	1 0		0 0 1!	0 0	
Volume Module: >> Count Date: 15 Jan 2004 << 0800-0900												
Base Vol:	53	513	6	17	660	229	147	1	30	2	0	2
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	54	518	6	17	667	231	148	1	30	2	0	2
Added Vol:	0	160	0	0	143	3	3	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	678	6	17	810	234	151	1	30	2	0	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	678	6	17	810	234	151	1	30	2	0	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	678	6	17	810	234	151	1	30	2	0	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	54	678	6	17	810	234	151	1	30	2	0	2
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.98	0.02	1.00	2.00	1.00	2.00	0.03	0.97	0.50	0.00	0.50
Final Sat.:	3200	3172	28	1600	3200	1600	3200	52	1548	800	0	800
Capacity Analysis Module:												
Vol/Sat:	0.02	0.21	0.21	0.01	0.25	0.15	0.05	0.02	0.02	0.00	0.00	0.00
Crit Moves:	****				****		****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Sunflower/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.564
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 1 1 0			1 0 1 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 0730-0830												
Base Vol:	53	394	55	67	207	101	118	192	67	79	321	115
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	54	398	56	68	209	102	119	194	68	80	324	116
Added Vol:	1	1	57	42	2	0	0	42	1	57	33	41
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	399	113	110	211	102	119	236	69	137	357	157
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	399	113	110	211	102	119	236	69	137	357	157
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	399	113	110	211	102	119	236	69	137	357	157
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	55	399	113	110	211	102	119	236	69	137	357	157
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.56	0.44	1.00	1.35	0.65	1.00	1.55	0.45	1.00	1.39	0.61
Final Sat.:	1600	2496	704	1600	2157	1043	1600	2479	721	1600	2222	978
Capacity Analysis Module:												
Vol/Sat:	0.03	0.16	0.16	0.07	0.10	0.10	0.07	0.10	0.10	0.09	0.16	0.16
Crit Moves:		****		****			****				****	

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #13 Willow/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.473
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	12.0
Optimal Cycle:	0	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module: >> Count Date: 13 Jan 2004 << 0730-0830												
Base Vol:	46	16	25	21	25	40	12	255	39	24	397	30
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	46	16	25	21	25	40	12	258	39	24	401	30
Added Vol:	0	0	6	6	0	0	0	141	0	5	130	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	16	31	27	25	40	12	399	39	29	531	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	16	31	27	25	40	12	399	39	29	531	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	16	31	27	25	40	12	399	39	29	531	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	46	16	31	27	25	40	12	399	39	29	531	35
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.50	0.17	0.33	0.29	0.27	0.44	0.05	1.77	0.18	0.10	1.78	0.12
Final Sat.:	269	93	181	161	150	239	33	1091	109	62	1134	76
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.17	0.17	0.17	0.37	0.37	0.36	0.47	0.47	0.46
Crit Moves:	****				****		****			****		
Delay/Veh:	10.3	10.3	10.3	10.1	10.1	10.1	11.7	11.5	11.3	13.1	12.9	12.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.3	10.3	10.3	10.1	10.1	10.1	11.7	11.5	11.3	13.1	12.9	12.7
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	10.3			10.1			11.5			12.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.3			10.1			11.5			12.9		
LOS by Appr:	B			B			B			B		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #114 Valley Center/Gladstone

Cycle (sec): 100 Critical Vol./Cap. (X): 0.692
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 19.7
Optimal Cycle: 0 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module: >> Count Date: 14 Jan 2004 << 0715-0815												
Base Vol:	36	12	150	13	12	11	1	244	36	71	376	8
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	36	12	152	13	12	11	1	246	36	72	380	8
Added Vol:	15	120	2	48	117	89	92	48	13	1	37	49
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	132	154	61	129	100	93	294	49	73	417	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	51	132	154	61	129	100	93	294	49	73	417	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	132	154	61	129	100	93	294	49	73	417	57
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	51	132	154	61	129	100	93	294	49	73	417	57
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.15	0.39	0.46	0.21	0.45	0.34	0.42	1.35	0.23	0.27	1.52	0.21
Final Sat.:	74	191	222	98	208	161	187	610	104	122	714	100
Capacity Analysis Module:												
Vol/Sat:	0.69	0.69	0.69	0.62	0.62	0.62	0.50	0.48	0.47	0.59	0.58	0.57
Crit Moves:		****			****		****			****		
Delay/Veh:	23.0	23.0	23.0	20.2	20.2	20.2	17.6	16.9	16.3	20.4	19.6	19.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.0	23.0	23.0	20.2	20.2	20.2	17.6	16.9	16.3	20.4	19.6	19.0
LOS by Move:	C	C	C	C	C	C	C	C	C	C	C	C
ApproachDel:		23.0			20.2			17.0			19.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		23.0			20.2			17.0			19.7	
LOS by Appr:		C			C			C			C	

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #115 Shellman/Gladstone

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B[12.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 1 1 0			0 1 1 0 0		
Volume Module: >> Count Date: 14 Jan 2004 << 0730-0830												
Base Vol:	12	0	85	0	0	0	0	418	17	43	403	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	12	0	86	0	0	0	0	422	17	43	407	0
Added Vol:	6	0	5	0	0	0	0	93	6	3	81	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	0	91	0	0	0	0	515	23	46	488	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	0	91	0	0	0	0	515	23	46	488	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	18	0	91	0	0	0	0	515	23	46	488	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	864	xxxx	269	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	538	xxxx	xxxxx
Potent Cap.:	297	xxxx	735	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1040	xxxx	xxxxx
Move Cap.:	287	xxxx	735	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1040	xxxx	xxxxx
Volume/Cap:	0.06	xxxx	0.12	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	583	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd StpDel:	xxxxx	12.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		12.6		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B			*			*			*	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #116 Lone Hill/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.556
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 2 0 1			2 0 1 0 1			1 0 1 0 1		
Volume Module: >> Count Date: 13 Jan 2004 << 0745-0845												
Base Vol:	26	242	97	50	442	211	198	132	147	134	258	76
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	26	244	98	51	446	213	200	133	148	135	261	77
Added Vol:	17	115	16	13	104	25	32	29	29	18	34	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	359	114	64	550	238	232	162	177	153	295	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	359	114	64	550	238	232	162	177	153	295	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	359	114	64	550	238	232	162	177	153	295	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	43	359	114	64	550	238	232	162	177	153	295	91
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	3200	1600	1600	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.07	0.04	0.17	0.15	0.07	0.10	0.11	0.10	0.18	0.06
Crit Moves:	****				****		****				****	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #117 Amelia/Gladstone

Cycle (sec): 100 Critical Vol./Cap. (X): 0.513
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Street Name:	Amelia Ave						Gladstone					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1!	0 0		0 0 1!	0 0		1 0 0	1 0		1 0 0	1 0	
Volume Module: >> Count Date: 13 Jan 2004 << 0715-0815												
Base Vol:	8	23	4	107	20	160	80	80	4	6	81	102
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	8	23	4	108	20	162	81	81	4	6	82	103
Added Vol:	0	0	0	14	0	25	17	33	0	0	34	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	23	4	122	20	187	98	114	4	6	116	111
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	23	4	122	20	187	98	114	4	6	116	111
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	23	4	122	20	187	98	114	4	6	116	111
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	8	23	4	122	20	187	98	114	4	6	116	111
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.23	0.66	0.11	0.37	0.06	0.57	1.00	0.97	0.03	1.00	0.51	0.49
Final Sat.:	366	1051	183	594	98	908	1600	1545	55	1600	817	783
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.08	0.21	0.21	0.06	0.07	0.07	0.00	0.14	0.14
Crit Moves:	****				****		****				****	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #118 Lone Hill/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.699
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			2 0 1 1 0			1 0 2 1 0			1 0 2 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 0730-0830												
Base Vol:	102	292	58	168	297	142	108	440	39	66	837	257
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	103	295	59	170	300	143	109	444	39	67	845	260
Added Vol:	40	50	25	32	32	46	27	118	30	0	116	33
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	143	345	84	202	332	189	136	562	69	67	961	293
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	143	345	84	202	332	189	136	562	69	67	961	293
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	345	84	202	332	189	136	562	69	67	961	293
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	143	345	84	202	332	189	136	562	69	67	961	293
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.27	0.73	1.00	2.67	0.33	1.00	2.30	0.70
Final Sat.:	1600	3200	1600	3200	2037	1163	1600	4273	527	1600	3680	1120
Capacity Analysis Module:												
Vol/Sat:	0.09	0.11	0.05	0.06	0.16	0.16	0.09	0.13	0.13	0.04	0.26	0.26
Crit Moves:	****				****		****				****	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #119 Arrow/SR-57 sb Off-Ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.685
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	0 0	1	1 1	0 0	1	0 1	1 1	0	1 0	2 1	0
Volume Module: >> Count Date: 14 Jan 2004 << 0745-0845												
Base Vol:	29	0	19	151	52	160	1	386	328	58	1052	202
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	29	0	19	153	53	162	1	390	331	59	1063	204
Added Vol:	0	0	0	56	0	3	0	174	0	0	145	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	0	19	209	53	165	1	564	331	59	1208	204
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	0	19	209	53	165	1	564	331	59	1208	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	0	19	209	53	165	1	564	331	59	1208	204
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	0	19	209	53	165	1	564	331	59	1208	204
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	1.60	0.40	1.00	0.01	1.99	1.00	1.00	2.57	0.43
Final Sat.:	3200	0	1600	2556	644	1600	5	3195	1600	1600	4106	694
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.08	0.08	0.10	0.00	0.18	0.21	0.04	0.29	0.29
Crit Moves:			****			****		****			****	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #120 Village Court/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.516
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module: >> Count Date: 13 Jan 2004 << 0745-0845												
Base Vol:	0	0	0	21	0	65	82	494	0	1	1274	51
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	0	0	21	0	66	83	499	0	1	1287	52
Added Vol:	0	0	0	0	0	6	5	149	0	0	178	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	21	0	72	88	648	0	1	1465	52
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	21	0	72	88	648	0	1	1465	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	21	0	72	88	648	0	1	1465	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	21	0	72	88	648	0	1	1465	52
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	0.00	0.46	0.54	1.00	1.00	3.00	0.00	1.00	2.90	0.10
Final Sat.:	0	1600	0	731	869	1600	1600	4800	0	1600	4637	163
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.04	0.05	0.13	0.00	0.00	0.32	0.32
Crit Moves:						****	****				****	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #121 Bonita-SR57 nb Ramps/Arrow

Cycle (sec): 100 Critical Vol./Cap. (X): 0.906
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 103 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 1	0	1 0	2 0	1	2 0	2 1	0	1 0	2 0	1
Volume Module: >> Count Date: 13 Jan 2004 << 0715-0815												
Base Vol:	532	227	150	35	57	397	122	259	58	67	436	9
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	537	229	152	35	58	401	123	262	59	68	440	9
Added Vol:	67	12	81	3	5	16	12	137	0	23	96	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	604	241	233	38	63	417	135	399	59	91	536	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	604	241	233	38	63	417	135	399	59	91	536	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	604	241	233	38	63	417	135	399	59	91	536	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	604	241	233	38	63	417	135	399	59	91	536	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.57	0.43	1.00	2.00	1.00	2.00	2.62	0.38	1.00	2.00	1.00
Final Sat.:	1600	910	690	1600	3200	1600	3200	4185	615	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.38	0.27	0.34	0.02	0.02	0.26	0.04	0.10	0.10	0.06	0.17	0.01
Crit Moves:	****					****	****				****	

Appendix C (continued)

Analysis Worksheets

Ambient Growth + Related/Area Projects + Project – PM Peak

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Lone Hill/Route 66-Foothill Blvd.

Cycle (sec):	100	Critical Vol./Cap. (X):	0.946
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	130	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T	- R		L - T	- R		L - T	- R		L - T	- R	
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	1 1	0	1 0	2 0	1	1 0	2 0	1	2 0	1 1	0
Volume Module: >> Count Date: 11 Jun 2003 << 430-530pm												
Base Vol:	543	499	145	145	321	57	132	906	881	274	523	74
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	548	504	146	146	324	58	133	915	890	277	528	75
Added Vol:	69	96	55	8	64	4	6	15	59	40	15	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	617	600	201	154	388	62	139	930	949	317	543	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	617	600	201	154	388	62	139	930	949	317	543	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	617	600	201	154	388	62	139	930	949	317	543	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	617	600	201	154	388	62	139	930	949	317	543	88
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.50	0.50	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.72	0.28
Final Sat.:	3200	2396	804	1600	3200	1600	1600	3200	1600	3200	2755	445
Capacity Analysis Module:												
Vol/Sat:	0.19	0.25	0.25	0.10	0.12	0.04	0.09	0.29	0.59	0.10	0.20	0.20
Crit Moves:		****		****					****	****		

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Amelia/Foothill

Cycle (sec): 100 Critical Vol./Cap. (X): 0.619
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 1 1 0			1 0 2 0 1			1 0 1 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 445-545												
Base Vol:	87	117	128	162	62	24	44	904	150	41	401	86
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	88	118	129	164	63	24	44	913	152	41	405	87
Added Vol:	2	82	10	6	61	34	50	27	1	10	33	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	200	139	170	124	58	94	940	153	51	438	97
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	200	139	170	124	58	94	940	153	51	438	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	200	139	170	124	58	94	940	153	51	438	97
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	90	200	139	170	124	58	94	940	153	51	438	97
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.36	0.64	1.00	2.00	1.00	1.00	1.64	0.36
Final Sat.:	1600	3200	1600	1600	2175	1025	1600	3200	1600	1600	2621	579
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.09	0.11	0.06	0.06	0.06	0.29	0.10	0.03	0.17	0.17
Crit Moves:			****	****				****		****		

San Dimas - Costco Commercial Complex
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Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Lone Hill/Kenoma

Average Delay (sec/veh): 41.6 Worst Case Level Of Service: F[1688.9]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	1	0	1	1	0		1	0	1	1	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module: >> Count Date: 14 Jan 2004 << 430-530																								
Base Vol:	49	1295		17			53	1222		23			4		1		20		35		2		29	
Growth Adj:	1.01	1.01		1.01			1.01	1.01		1.01			1.01		1.01		1.01		1.01		1.01		1.01	
Initial Bse:	49	1308		17			54	1234		23			4		1		20		35		2		29	
Added Vol:	5	216		5			1	161		1			2		0		5		5		0		2	
PasserByVol:	0	0		0			0	0		0			0		0		0		0		0		0	
Initial Fut:	54	1524		22			55	1395		24			6		1		25		40		2		31	
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	54	1524		22			55	1395		24			6		1		25		40		2		31	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
Final Vol.:	54	1524		22			55	1395		24			6		1		25		40		2		31	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx		xxxxx			4.1	xxxx		xxxxx			7.5		6.5		6.9		7.5		6.5		6.9	
FollowUpTim:	2.2	xxxx		xxxxx			2.2	xxxx		xxxxx			3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	1419	xxxx		xxxxx			1546	xxxx		xxxxx			2388		3171		710		2451		3173		773	
Potent Cap.:	486	xxxx		xxxxx			435	xxxx		xxxxx			18		11		381		16		11		346	
Move Cap.:	486	xxxx		xxxxx			435	xxxx		xxxxx			11		8		381		12		8		346	
Volume/Cap:	0.11	xxxx		xxxx			0.13	xxxx		xxxx			0.54		0.12		0.07		3.51		0.24		0.09	
Level Of Service Module:																								
Queue:	0.4	xxxx		xxxxx			0.4	xxxx		xxxxx			xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
Stopped Del:	13.3	xxxx		xxxxx			14.5	xxxx		xxxxx			xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	B	*		*			B	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			xxxx		45		xxxxx		xxxx		19		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx		2.8		xxxxx		xxxxx		9.7		xxxxx	
Shrd StpDel:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx		198		xxxxx		xxxxx		1689		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		F		*		*		F		*	
ApproachDel:	xxxxxx						xxxxxx						197.8						1688.9					
ApproachLOS:	*						*						F						F					

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Lone Hill/Petunia

Cycle (sec):	100	Critical Vol./Cap. (X):	0.685
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module: >> Count Date: 15 Jan 2004 << 400-500pm												
Base Vol:	27	1261	71	39	1153	0	13	1	27	55	3	15
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	27	1274	72	39	1165	0	13	1	27	56	3	15
Added Vol:	5	223	5	1	168	1	2	0	5	5	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	1497	77	40	1333	1	15	1	32	61	3	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	1497	77	40	1333	1	15	1	32	61	3	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	1497	77	40	1333	1	15	1	32	61	3	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	32	1497	77	40	1333	1	15	1	32	61	3	17
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.90	0.10	1.00	1.99	0.01	0.31	0.02	0.67	0.75	0.04	0.21
Final Sat.:	1600	3044	156	1600	3198	2	500	33	1067	1200	60	340
Capacity Analysis Module:												
Vol/Sat:	0.02	0.49	0.49	0.03	0.42	0.42	0.01	0.03	0.03	0.04	0.05	0.05
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Lone Hill/SR-210 wb Ramps

Cycle (sec):	100	Critical Vol./Cap. (X):	1.484
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Permitted				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	1	0 2	0	0	0	0 3	0	1	0	0 0	0	0	1	0 1!	0	0
Volume Module: >> Count Date: 11 Jun 2003 << 430-530pm																
Base Vol:	1009	607	0	0	1157	284	0	0	0	436	0	617				
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01				
Initial Bse:	1019	613	0	0	1169	287	0	0	0	440	0	623				
Added Vol:	71	172	0	0	154	24	0	0	0	72	0	61				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	1090	785	0	0	1323	311	0	0	0	512	0	684				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	1090	785	0	0	1323	311	0	0	0	512	0	684				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	1090	785	0	0	1323	311	0	0	0	512	0	684				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Final Vol.:	1090	785	0	0	1323	311	0	0	0	512	0	684				
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600				
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00				
Final Sat.:	1600	3200	0	0	4800	1600	0	0	0	1600	0	1600				
Capacity Analysis Module:																
Vol/Sat:	0.68	0.25	0.00	0.00	0.28	0.19	0.00	0.00	0.00	0.32	0.00	0.43				
Crit Moves:	****				****							****				

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Lone Hill/SR-210 eb Ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.914
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 108 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	0	0	3	0 1	1	0	3	0 0	1	0	0	1 0	0	0	0	0 0
Volume Module: >> Count Date: 13 Jan 2004 << 430-530																
Base Vol:	0	1212	458		326	1266	0		376	6	331		0	0	0	
Growth Adj:	1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01	
Initial Bse:	0	1224	463		329	1279	0		380	6	334		0	0	0	
Added Vol:	0	204	67		25	200	0		39	0	51		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	1428	530		354	1479	0		419	6	385		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	1428	530		354	1479	0		419	6	385		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	1428	530		354	1479	0		419	6	385		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	0	1428	530		354	1479	0		419	6	385		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.00	3.00	1.00		1.00	3.00	0.00		1.00	0.02	0.98		0.00	0.00	0.00	
Final Sat.:	0	4800	1600		1600	4800	0		1600	25	1575		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.30	0.33		0.22	0.31	0.00		0.26	0.24	0.24		0.00	0.00	0.00	
Crit Moves:			****		****				****							

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Lone Hill/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.988
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	179	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 2	0	1	2 0 2	0	0	0 0 0	0	0	1 0 1!	0	1
Volume Module: >> Count Date: 11 Jun 2003 << 400-500pm												
Base Vol:	0 1110	530	639	975		0	0	0	0	428	0	641
Growth Adj:	1.01 1.01	1.01	1.01	1.01		1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0 1121	535	645	985		0	0	0	0	432	0	647
Added Vol:	0 255	112	29	229		0	0	0	0	105	0	2
PasserByVol:	0 0	0	0	0		0	0	0	0	0	0	0
Initial Fut:	0 1376	647	674	1214		0	0	0	0	537	0	649
User Adj:	1.00 1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00 1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0 1376	647	674	1214		0	0	0	0	537	0	649
Reduct Vol:	0 0	0	0	0		0	0	0	0	0	0	0
Reduced Vol:	0 1376	647	674	1214		0	0	0	0	537	0	649
PCE Adj:	1.00 1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00 1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0 1376	647	674	1214		0	0	0	0	537	0	649
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600	1600	1600		1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00 1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00 2.00	1.00	2.00	2.00		0.00	0.00	0.00	0.00	1.35	0.01	1.64
Final Sat.:	0 3200	1600	3200	3200		0	0	0	0	2173	0	2627
Capacity Analysis Module:												
Vol/Sat:	0.00 0.43	0.40	0.21	0.38		0.00	0.00	0.00	0.00	0.25	0.00	0.25
Crit Moves:	****		****							****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 WalMart Dwy/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.608
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module: >> Count Date: 13 Jan 2004 << 430-530 pm												
Base Vol:	244	0	102	0	0	0	0	673	45	119	674	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	246	0	103	0	0	0	0	680	45	120	681	0
Added Vol:	13	0	0	0	0	0	0	128	13	0	95	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	259	0	103	0	0	0	0	808	58	120	776	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	259	0	103	0	0	0	0	808	58	120	776	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	0	103	0	0	0	0	808	58	120	776	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	259	0	103	0	0	0	0	808	58	120	776	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.87	0.13	1.00	2.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	2984	216	1600	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.16	0.00	0.06	0.00	0.00	0.00	0.00	0.27	0.27	0.08	0.24	0.00
Crit Moves:	****							****		****		

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 SR57 NBoff/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.735
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 2 0 0			0 0 2 0 0		
Volume Module: >> Count Date: 13 Jan 2004 << 445-545												
Base Vol:	685	0	393	0	0	0	0	332	0	0	456	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	692	0	397	0	0	0	0	335	0	0	461	0
Added Vol:	76	0	27	0	0	0	0	21	0	0	37	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	768	0	424	0	0	0	0	356	0	0	498	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	768	0	424	0	0	0	0	356	0	0	498	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	768	0	424	0	0	0	0	356	0	0	498	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	768	0	424	0	0	0	0	356	0	0	498	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	3200	0	0	3200	0
Capacity Analysis Module:												
Vol/Sat:	0.48	0.00	0.26	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.16	0.00
Crit Moves:	****						****				****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Amelia/Auto Centre-Allen

Cycle (sec):	100	Critical Vol./Cap. (X):	0.549
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 1 0			1 0 1 0 1			1 0 0 1 0			1 0 0 1 0		
Volume Module: >> Count Date: 15 Jan 2004 << 445-545 pm												
Base Vol:	44	154	41	28	130	168	209	221	69	29	155	18
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	44	156	41	28	131	170	211	223	70	29	157	18
Added Vol:	1	57	3	1	46	26	35	11	1	3	10	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	213	44	29	177	196	246	234	71	32	167	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	213	44	29	177	196	246	234	71	32	167	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	213	44	29	177	196	246	234	71	32	167	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	45	213	44	29	177	196	246	234	71	32	167	20
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.83	0.17	1.00	1.00	1.00	1.00	0.77	0.23	1.00	0.89	0.11
Final Sat.:	1600	1323	277	1600	1600	1600	1600	1229	371	1600	1427	173
Capacity Analysis Module:												
Vol/Sat:	0.03	0.16	0.16	0.02	0.11	0.12	0.15	0.19	0.19	0.02	0.12	0.12
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Glendora Mktplc - East Access

Cycle (sec):	100	Critical Vol./Cap. (X):	0.607
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	1 1	0	1 0	2 0	1	2 0	0 1	0	0 0	1! 0	0
Volume Module: >> Count Date: 15 Jan 2004 << 445-545 pm												
Base Vol:	99	912	0	4	756	393	376	0	134	3	0	1
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	100	921	0	4	764	397	380	0	135	3	0	1
Added Vol:	0	298	0	0	284	8	8	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	1219	0	4	1048	405	388	0	135	3	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	100	1219	0	4	1048	405	388	0	135	3	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	1219	0	4	1048	405	388	0	135	3	0	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	100	1219	0	4	1048	405	388	0	135	3	0	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	1.00	2.00	1.00	2.00	0.00	1.00	0.75	0.00	0.25
Final Sat.:	3200	3200	0	1600	3200	1600	3200	0	1600	1200	0	400
Capacity Analysis Module:												
Vol/Sat:	0.03	0.38	0.00	0.00	0.33	0.25	0.12	0.00	0.08	0.00	0.00	0.00
Crit Moves:		****		****			****			****		

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Sunflower/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.739
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module: >> Count Date: 15 Jan 2004 << 500-600												
Base Vol:	44	290	118	113	288	83	92	443	89	69	315	65
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	44	293	119	114	291	84	93	447	90	70	318	66
Added Vol:	3	9	148	98	12	0	0	69	3	151	75	92
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	47	302	267	212	303	84	93	516	93	221	393	158
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	47	302	267	212	303	84	93	516	93	221	393	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	302	267	212	303	84	93	516	93	221	393	158
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	47	302	267	212	303	84	93	516	93	221	393	158
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.06	0.94	1.00	1.57	0.43	1.00	1.70	0.30	1.00	1.43	0.57
Final Sat.:	1600	1698	1502	1600	2506	694	1600	2712	488	1600	2284	916
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.13	0.12	0.12	0.06	0.19	0.19	0.14	0.17	0.17
Crit Moves:		****		****				****		****		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #13 Willow/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	0.790
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	22.5
Optimal Cycle:	0	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module: >> Count Date: 13 Jan 2004 << 500-600 pm												
Base Vol:	12	5	12	27	1	22	40	568	30	14	399	35
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	12	5	12	27	1	22	40	574	30	14	403	35
Added Vol:	1	0	12	12	0	1	1	314	1	12	316	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	5	24	39	1	23	41	888	31	26	719	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	5	24	39	1	23	41	888	31	26	719	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	5	24	39	1	23	41	888	31	26	719	47
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	13	5	24	39	1	23	41	888	31	26	719	47
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.31	0.12	0.57	0.62	0.02	0.36	0.09	1.85	0.06	0.07	1.81	0.12
Final Sat.:	162	62	297	320	8	189	52	1130	40	39	1069	71
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.12	0.12	0.12	0.79	0.79	0.78	0.68	0.67	0.67
Crit Moves:	****			****			****			****		
Delay/Veh:	10.2	10.2	10.2	10.6	10.6	10.6	26.7	26.1	25.5	20.2	19.8	19.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.2	10.2	10.2	10.6	10.6	10.6	26.7	26.1	25.5	20.2	19.8	19.4
LOS by Move:	B	B	B	B	B	B	D	D	D	C	C	C
ApproachDel:	10.2			10.6			26.1			19.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.2			10.6			26.1			19.8		
LOS by Appr:	B			B			D			C		

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #114 Valley Center/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	1.799
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	197.3
Optimal Cycle:	0	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	0 1	0 1	0
Volume Module: >> Count Date: 14 Jan 2004 << 445-545 pm												
Base Vol:	42	15	164	26	8	12	18	506	56	127	373	30
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	42	15	166	26	8	12	18	511	57	128	377	30
Added Vol:	19	312	4	126	310	241	242	76	20	4	81	127
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	61	327	170	152	318	253	260	587	77	132	458	157
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	61	327	170	152	318	253	260	587	77	132	458	157
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	327	170	152	318	253	260	587	77	132	458	157
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	61	327	170	152	318	253	260	587	77	132	458	157
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.11	0.59	0.30	0.21	0.44	0.35	0.56	1.27	0.17	0.35	1.23	0.42
Final Sat.:	44	235	122	85	177	141	212	492	65	135	478	169
Capacity Analysis Module:												
Vol/Sat:	1.39	1.39	1.39	1.80	1.80	1.80	1.23	1.19	1.18	0.98	0.96	0.93
Crit Moves:	****			****			****			****		
Delay/Veh:	214.8	215	214.8	390.7	391	390.7	151.8	138	131.2	72.7	66.5	59.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	214.8	215	214.8	390.7	391	390.7	151.8	138	131.2	72.7	66.5	59.7
LOS by Move:	F	F	F	F	F	F	F	F	F	F	F	F
ApproachDel:	214.8			390.7			141.5			66.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	214.8			390.7			141.5			66.2		
LOS by Appr:	F			F			F			F		

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #115 Shellman/Gladstone

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[22.8]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	0	0	0		0	0	1	1	0		0	1	1	0	0	
Volume Module: >> Count Date: 14 Jan 2004 << 445-545																								
Base Vol:	3		0		19		0		0		0		0		716		5		16		532		0	
Growth Adj:	1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01	
Initial Bse:	3		0		19		0		0		0		0		723		5		16		537		0	
Added Vol:	16		0		5		0		0		0		0		190		16		7		196		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	19		0		24		0		0		0		0		913		21		23		733		0	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	19		0		24		0		0		0		0		913		21		23		733		0	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	19		0		24		0		0		0		0		913		21		23		733		0	
Critical Gap Module:																								
Critical Gp:	6.8	xxxx			6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								4.1	xxxx	xxxxx			
FollowUpTim:	3.5	xxxx			3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	1337	xxxx			467	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								934	xxxx	xxxxx			
Potent Cap.:	147	xxxx			548	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								741	xxxx	xxxxx			
Move Cap.:	144	xxxx			548	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								741	xxxx	xxxxx			
Volume/Cap:	0.13	xxxx			0.04	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx								0.03	xxxx	xxxx			
Level Of Service Module:																								
Queue:	xxxxx	xxxx			xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								0.1	xxxx	xxxxx			
Stopped Del:	xxxxx	xxxx			xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								10.0	xxxx	xxxxx			
LOS by Move:	*		*		*	*	*	*	*	*	*								B		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		245		xxxxx		xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		0.6		xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx			
Shrd StpDel:	xxxxx		22.8		xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.0	xxxx	xxxxx			
Shared LOS:	*		C		*		*	*	*	*	*	*	*	*	*	*	*	*	B		*		*	
ApproachDel:			22.8						xxxxxx						xxxxxx						xxxxxx			
ApproachLOS:			C						*						*						*			

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #116 Lone Hill/Gladstone

Cycle (sec): 100 Critical Vol./Cap. (X): 0.774
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 61 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 2 0 1			2 0 1 0 1			1 0 1 0 1		
Volume Module: >> Count Date: 13 Jan 2004 << 415-515 pm												
Base Vol:	71	645	176	109	509	253	258	293	111	98	194	101
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	72	651	178	110	514	256	261	296	112	99	196	102
Added Vol:	49	221	28	31	204	49	45	82	45	24	81	31
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	872	206	141	718	305	306	378	157	123	277	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	121	872	206	141	718	305	306	378	157	123	277	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	872	206	141	718	305	306	378	157	123	277	133
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	121	872	206	141	718	305	306	378	157	123	277	133
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	3200	1600	1600	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.27	0.13	0.09	0.22	0.19	0.10	0.24	0.10	0.08	0.17	0.08
Crit Moves:		****		****				****		****		

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #117 Amelia/Gladstone

Cycle (sec): 100 Critical Vol./Cap. (X): 0.612
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: B

Street Name:	Amelia Ave						Gladstone					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1!	0 0		0 0 1!	0 0		1 0 0	1 0		1 0 0	1 0	
Volume Module: >> Count Date: 13 Jan 2004 << 445-545 pm												
Base Vol:	6	8	7	100	17	115	156	423	9	13	153	72
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	6	8	7	101	17	116	158	427	9	13	155	73
Added Vol:	0	0	0	14	0	36	42	80	0	0	80	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	8	7	115	17	152	200	507	9	13	235	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	8	7	115	17	152	200	507	9	13	235	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	8	7	115	17	152	200	507	9	13	235	92
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	6	8	7	115	17	152	200	507	9	13	235	92
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.29	0.38	0.33	0.40	0.06	0.54	1.00	0.98	0.02	1.00	0.72	0.28
Final Sat.:	457	610	533	647	97	856	1600	1572	28	1600	1150	450
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.07	0.18	0.18	0.12	0.32	0.32	0.01	0.20	0.20
Crit Moves:	****				****			****		****		

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #118 Lone Hill/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.876
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	89	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	1	0 2	0 1		2	0 1	1 0		1	0 2	1 0		1	0 2	1 0	
Volume Module: >> Count Date: 15 Jan 2004 << 445-545 pm																
Base Vol:	150	387	102		358	354	160		186	872	77		121	705	216	
Growth Adj:	1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01	
Initial Bse:	152	391	103		362	358	162		188	881	78		122	712	218	
Added Vol:	85	58	17		58	69	49		71	276	91		0	284	67	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	237	449	120		420	427	211		259	1157	169		122	996	285	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	237	449	120		420	427	211		259	1157	169		122	996	285	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	237	449	120		420	427	211		259	1157	169		122	996	285	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	237	449	120		420	427	211		259	1157	169		122	996	285	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		2.00	1.34	0.66		1.00	2.62	0.38		1.00	2.33	0.67	
Final Sat.:	1600	3200	1600		3200	2142	1058		1600	4189	611		1600	3732	1068	
Capacity Analysis Module:																
Vol/Sat:	0.15	0.14	0.08		0.13	0.20	0.20		0.16	0.28	0.28		0.08	0.27	0.27	
Crit Moves:	****					****			****					****		

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #119 Arrow/SR-57 sb Off-Ramp

Cycle (sec):	100	Critical Vol./Cap. (X):	0.774
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	2	0	0	0 1	1	1	0	0 1	0	0	2	1 0	1	0	2	1 0
Volume Module: >> Count Date: 14 Jan 2004 << 445-545 pm																
Base Vol:	170	0	123		218	127	193		0	999	291		200	958	332	
Growth Adj:	1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01	
Initial Bse:	172	0	124		220	128	195		0	1009	294		202	968	335	
Added Vol:	0	0	0		49	0	7		0	350	0		0	344	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	172	0	124		269	128	202		0	1359	294		202	1312	335	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	172	0	124		269	128	202		0	1359	294		202	1312	335	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	172	0	124		269	128	202		0	1359	294		202	1312	335	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	172	0	124		269	128	202		0	1359	294		202	1312	335	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		1.35	0.65	1.00		0.00	2.47	0.53		1.00	2.39	0.61	
Final Sat.:	3200	0	1600		2167	1033	1600		0	3946	854		1600	3823	977	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.00	0.08		0.12	0.12	0.13		0.00	0.34	0.34		0.13	0.34	0.34	
Crit Moves:			****				****			****			****			

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #120 Village Court/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.691
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0	0	0 1	0	1	0	1 0	2	1	0	1 0	2	1	0
Volume Module: >> Count Date: 13 Jan 2004 << 500-600 pm																
Base Vol:	3	1	0	44	0	150	139	1234	2	7	1331	81				
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01				
Initial Bse:	3	1	0	44	0	152	140	1246	2	7	1344	82				
Added Vol:	0	0	0	0	0	13	13	211	0	0	447	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	3	1	0	44	0	165	153	1457	2	7	1791	82				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	3	1	0	44	0	165	153	1457	2	7	1791	82				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	3	1	0	44	0	165	153	1457	2	7	1791	82				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Final Vol.:	3	1	0	44	0	165	153	1457	2	7	1791	82				
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600				
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Lanes:	0.75	0.25	0.00	0.43	0.57	1.00	1.00	2.99	0.01	1.00	2.87	0.13				
Final Sat.:	1200	400	0	681	919	1600	1600	4793	7	1600	4590	210				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.10	0.10	0.30	0.30	0.00	0.39	0.39				
Crit Moves:	****					****	****				****					

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #121 Bonita-SR57 nb Ramps/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	1.216
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 1	0	1 0	2 0	1	2 0	2 1	0	1 0	2 0	1
Volume Module: >> Count Date: 13 Jan 2004 << 500-600												
Base Vol:	581	433	196	135	253	257	721	672	111	500	677	14
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	587	437	198	136	256	260	728	679	112	505	684	14
Added Vol:	148	26	87	9	13	43	29	182	0	69	256	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	735	463	285	145	269	303	757	861	112	574	940	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	735	463	285	145	269	303	757	861	112	574	940	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	735	463	285	145	269	303	757	861	112	574	940	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	735	463	285	145	269	303	757	861	112	574	940	23
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.62	0.38	1.00	2.00	1.00	2.00	2.65	0.35	1.00	2.00	1.00
Final Sat.:	1585	1000	615	1600	3200	1600	3200	4247	553	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.46	0.46	0.46	0.09	0.08	0.19	0.24	0.20	0.20	0.36	0.29	0.01
Crit Moves:	****			****				****		****		

Appendix C (continued)

Analysis Worksheets

Ambient Growth + Related/Area Projects + Project – Saturday Mid-Day Peak

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Lone Hill/Auto Centre

Cycle (sec):	100	Critical Vol./Cap. (X):	0.893
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	96	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 2	0	1	2 0 2	0	0	0 0 0	0	0	1 0 1!	0	1
Volume Module: >> Count Date: 10 Jan 2004 << 1215-1315												
Base Vol:	0	973	401	538	924	0	0	0	0	377	0	508
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	983	405	543	933	0	0	0	0	381	0	513
Added Vol:	0	293	131	29	292	0	0	0	0	137	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1276	536	572	1225	0	0	0	0	518	0	515
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1276	536	572	1225	0	0	0	0	518	0	515
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1276	536	572	1225	0	0	0	0	518	0	515
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1276	536	572	1225	0	0	0	0	518	0	515
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.50	xxxx	1.50
Final Sat.:	0	3200	1600	3200	3200	0	0	0	0	2406	0	2394
Capacity Analysis Module:												
Vol/Sat:	0.00	0.40	0.34	0.18	0.38	0.00	0.00	0.00	0.00	0.22	0.00	0.22
Crit Moves:		****		****								****

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Glendora Mktplc - East Access

Cycle (sec):	100	Critical Vol./Cap. (X):	0.680
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	1 1	0	1 0	2 0	1	2 0	0 1	0	0 0	1! 0	0
Volume Module: >> Count Date: 10 Jan 2004 << 1230-1330												
Base Vol:	192	679	0	3	679	678	598	0	197	0	0	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	194	686	0	3	686	685	604	0	199	0	0	0
Added Vol:	0	364	0	0	363	11	10	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	194	1050	0	3	1049	696	614	0	199	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	194	1050	0	3	1049	696	614	0	199	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	1050	0	3	1049	696	614	0	199	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	194	1050	0	3	1049	696	614	0	199	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	1.00	2.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00
Final Sat.:	3200	3200	0	1600	3200	1600	3200	0	1600	0	1600	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.33	0.00	0.00	0.33	0.43	0.19	0.00	0.12	0.00	0.00	0.00
Crit Moves:	****				****		****					

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #115 Shellman/Gladstone

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: C[19.9]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	0	0	0		0	0	1	1	0		0	1	1	0	0	
Volume Module: >> Count Date: 10 Jan 2004 << 1245-1345																								
Base Vol:	6		0		21		0		0		0		0		454		8		14		467		0	
Growth Adj:	1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01		1.01	
Initial Bse:	6		0		21		0		0		0		0		459		8		14		472		0	
Added Vol:	22		0		7		0		0		0		0		261		21		6		253		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	28		0		28		0		0		0		0		720		29		20		725		0	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	28		0		28		0		0		0		0		720		29		20		725		0	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	28		0		28		0		0		0		0		720		29		20		725		0	
Critical Gap Module:																								
Critical Gp:	6.8	xxxx			6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								4.1	xxxx	xxxxx			
FollowUpTim:	3.5	xxxx			3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								2.2	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	1137	xxxx			374	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								749	xxxx	xxxxx			
Potent Cap.:	199	xxxx			629	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								869	xxxx	xxxxx			
Move Cap.:	195	xxxx			629	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								869	xxxx	xxxxx			
Volume/Cap:	0.14	xxxx			0.04	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx								0.02	xxxx	xxxx			
Level Of Service Module:																								
Queue:	xxxxx	xxxx			xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								0.1	xxxx	xxxxx			
Stopped Del:	xxxxx	xxxx			xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								9.2	xxxx	xxxxx			
LOS by Move:	*		*		*	*	*	*	*	*	*								A		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx		298		xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx		0.7		xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								0.1	xxxx	xxxxx			
Shrd StpDel:	xxxxx		19.9		xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								9.2	xxxx	xxxxx			
Shared LOS:	*		C		*	*	*	*	*	*	*								A		*		*	
ApproachDel:			19.9				xxxxxx				xxxxxx								xxxxxx					
ApproachLOS:			C				*				*								*					

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #116 Lone Hill/Gladstone

Cycle (sec):	100	Critical Vol./Cap. (X):	1.062
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			1 0 2 0 1			2 0 1 0 1			1 0 1 0 1		
Volume Module: >> Count Date: 10 Jan 2004 << 1245-1345												
Base Vol:	185	888	65	298	951	154	474	274	107	120	232	81
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	187	897	66	301	961	156	479	277	108	121	234	82
Added Vol:	59	266	26	43	264	55	56	111	70	28	112	42
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	246	1163	92	344	1225	211	535	388	178	149	346	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	246	1163	92	344	1225	211	535	388	178	149	346	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	246	1163	92	344	1225	211	535	388	178	149	346	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	246	1163	92	344	1225	211	535	388	178	149	346	124
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	3200	1600	1600	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.15	0.36	0.06	0.21	0.38	0.13	0.17	0.24	0.11	0.09	0.22	0.08
Crit Moves:		****		****			****				****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #117 Amelia/Gladstone

Cycle (sec): 100 Critical Vol./Cap. (X): 0.540
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Street Name:	Amelia Ave						Gladstone					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1!	0 0		0 0 1!	0 0		1 0 0	1 0		1 0 0	1 0	
Volume Module: >> Count Date: 10 Jan 2004 << 1230-1330												
Base Vol:	13	10	13	60	2	51	68	299	10	6	225	45
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	13	10	13	61	2	52	69	302	10	6	227	45
Added Vol:	0	0	0	18	0	46	46	105	0	0	109	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	10	13	79	2	98	115	407	10	6	336	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	10	13	79	2	98	115	407	10	6	336	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	10	13	79	2	98	115	407	10	6	336	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	13	10	13	79	2	98	115	407	10	6	336	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.36	0.28	0.36	0.44	0.01	0.55	1.00	0.98	0.02	1.00	0.84	0.16
Final Sat.:	578	444	578	706	18	876	1600	1561	39	1600	1349	251
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.05	0.11	0.11	0.07	0.26	0.26	0.00	0.25	0.25
Crit Moves:	****				****		****				****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #118 Lone Hill/Arrow

Cycle (sec): 100 Critical Vol./Cap. (X): 0.843
Loss Time (sec): 10 (Y+R = 4 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 78 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 2 0 1			2 0 1 1 0			1 0 2 1 0			1 0 2 1 0		
Volume Module: >> Count Date: 10 Jan 2004 << 1300-1400												
Base Vol:	85	267	86	337	242	137	199	618	32	103	608	301
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	86	270	87	340	244	138	201	624	32	104	614	304
Added Vol:	118	70	18	76	69	70	66	365	115	0	369	85
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	204	340	105	416	313	208	267	989	147	104	983	389
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	204	340	105	416	313	208	267	989	147	104	983	389
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	204	340	105	416	313	208	267	989	147	104	983	389
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	204	340	105	416	313	208	267	989	147	104	983	389
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.20	0.80	1.00	2.61	0.39	1.00	2.15	0.85
Final Sat.:	1600	3200	1600	3200	1922	1278	1600	4178	622	1600	3439	1361
Capacity Analysis Module:												
Vol/Sat:	0.13	0.11	0.07	0.13	0.16	0.16	0.17	0.24	0.24	0.07	0.29	0.29
Crit Moves:	****				****		****				****	

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #119 Arrow/SR-57 sb Off-Ramp

Cycle (sec):	100	Critical Vol./Cap. (X):	0.920
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	111	Level Of Service:	E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Protected			
Rights:	Ovl				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Lanes:	2	0	0	0 1	1	1	0	0 1	0	0	2	1 0	1	0	3	0 0
Volume Module: >> Count Date: 10 Jan 2004 << 1300-1400																
Base Vol:	250	0	131		199	201	140		0	1233	209		301	1003	0	
Growth Adj:	1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01		1.01	1.01	1.01	
Initial Bse:	253	0	132		201	203	141		0	1245	211		304	1013	0	
Added Vol:	0	0	0		70	0	10		0	459	0		0	444	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	253	0	132		271	203	151		0	1704	211		304	1457	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	253	0	132		271	203	151		0	1704	211		304	1457	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	253	0	132		271	203	151		0	1704	211		304	1457	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Final Vol.:	253	0	132		271	203	151		0	1704	211		304	1457	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	0.00	1.00		1.14	0.86	1.00		0.00	2.67	0.33		1.00	3.00	0.00	
Final Sat.:	3200	0	1600		1829	1371	1600		0	4271	529		1600	4800	0	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.00	0.08		0.15	0.15	0.09		0.00	0.40	0.40		0.19	0.30	0.00	
Crit Moves:			****		****					****			****			

San Dimas - Costco Commercial Complex
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #120 Village Court/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	0.832
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	75	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module: >> Count Date: 10 Jan 2004 << 1300-1400												
Base Vol:	3	0	2	115	2	202	240	951	1	7	1366	153
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	3	0	2	116	2	204	242	961	1	7	1380	155
Added Vol:	0	0	0	0	0	17	17	293	0	0	531	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	0	2	116	2	221	259	1254	1	7	1911	155
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	2	116	2	221	259	1254	1	7	1911	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	0	2	116	2	221	259	1254	1	7	1911	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	3	0	2	116	2	221	259	1254	1	7	1911	155
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.60	0.00	0.40	0.68	0.32	1.00	1.00	2.99	0.01	1.00	2.78	0.22
Final Sat.:	960	0	640	1096	504	1600	1600	4796	4	1600	4441	359
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.14	0.16	0.26	0.26	0.00	0.43	0.43
Crit Moves:	****					****	****				****	

San Dimas - Costco Commercial Complex
Traffic Impact Study - November, 2004
Katz, Okitsu & Associates - (JA3263)

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #121 Bonita-SR57 nb Ramps/Arrow

Cycle (sec):	100	Critical Vol./Cap. (X):	1.071
Loss Time (sec):	10 (Y+R = 4 sec)	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 1	0	1 0	2 0	1	2 0	2 1	0	1 0	2 0	1
Volume Module: >> Count Date: 10 Jan 2004 << 100-200												
Base Vol:	374	197	120	100	140	509	330	490	223	138	519	49
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	378	199	121	101	141	514	333	495	225	139	524	49
Added Vol:	211	56	98	12	17	56	55	237	0	56	264	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	589	255	219	113	158	570	388	732	225	195	788	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	589	255	219	113	158	570	388	732	225	195	788	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	589	255	219	113	158	570	388	732	225	195	788	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	589	255	219	113	158	570	388	732	225	195	788	68
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.59	0.41	1.00	2.00	1.00	2.00	2.29	0.71	1.00	2.00	1.00
Final Sat.:	1600	940	660	1600	3200	1600	3200	3670	1130	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.37	0.27	0.33	0.07	0.05	0.36	0.12	0.20	0.20	0.12	0.25	0.04
Crit Moves:	****					****	****				****	