METRO GOLD LINE FOOTHILL EXTENSION
AZUSA TO MONTCLAIR

Transportation Technical Report
for the
Draft EIR

Prepared by:
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August 2011

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August 2012

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Chapter 1 – Summary

This report prepared by Intueor Consulting, Inc. in August 2011 was updated by Parsons Brinckerhoff in August 2012, which focuses on transportation impacts, is one of a series of technical reports prepared in support of the Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR) for the Metro Gold Line Foothill Extension Azusa to Montclair project. The proposed 12.6 mile east-west light rail transit (LRT) line extends from its existing terminus in the City of Azusa through the cities of Glendora, San Dimas, La Verne, Pomona, Claremont and Montclair. The proposed project would enable passengers to make a trip from Montclair to downtown Pasadena in just over 40 minutes and from Montclair to downtown Los Angeles in approximately 75 minutes. The Project includes stations in Glendora, San Dimas, La Verne, Pomona, Claremont, and Montclair as depicted on **Figure 1-1**.

Chapter 2.0 provides a project background and describes the alternatives under consideration. The analysis methodology and significance criteria are presented in Chapter 3.0 of this report. Traffic count data was collected at 90 intersection locations and 35 roadway segments. The traffic analysis methodology and impact thresholds set forth by the County of Los Angeles Department of Public Works were used in this report. An existing conditions analysis was performed for each component of the transportation environment, which consists of transit, traffic circulation, parking and other modes such as pedestrians and bicycles. Details of the affected environment are presented in Chapter 4.0. Existing transit information was collected for the operators providing services within the study area. Existing traffic operating conditions were evaluated for the project area roadway segments and intersections. The existing conditions intersection analysis shows that 6 of the 90 locations are currently operating at LOS E or F. All other intersections currently operate at LOS D or better during both the AM and PM peak hours. Parking provisions at each station would be designed to accommodate patrons using the LRT service. Also, it is anticipated that existing on-street parking spaces will not be displaced by the construction of the proposed light rail tranist project alignment.

Future conditions were developed for the No Build, TSM and the Build alternatives to determine project related impacts, mitigation measures and any residual impacts after mitigation. Impacts for each alternative being considered are detailed by each component of the transportation environment in Chapter 5.0. Greater impacts can be seen on transit, traffic circulation, parking and other modes for the No Build Alternative than the Build and TSM alternatives. For traffic circulation, **Table 1-1** summarizes the number of intersections with levels of service E and F during the AM and PM peak hours in the horizon year of 2035.

Table 1-1: Number of Intersections With Level of Service E and F In 2035

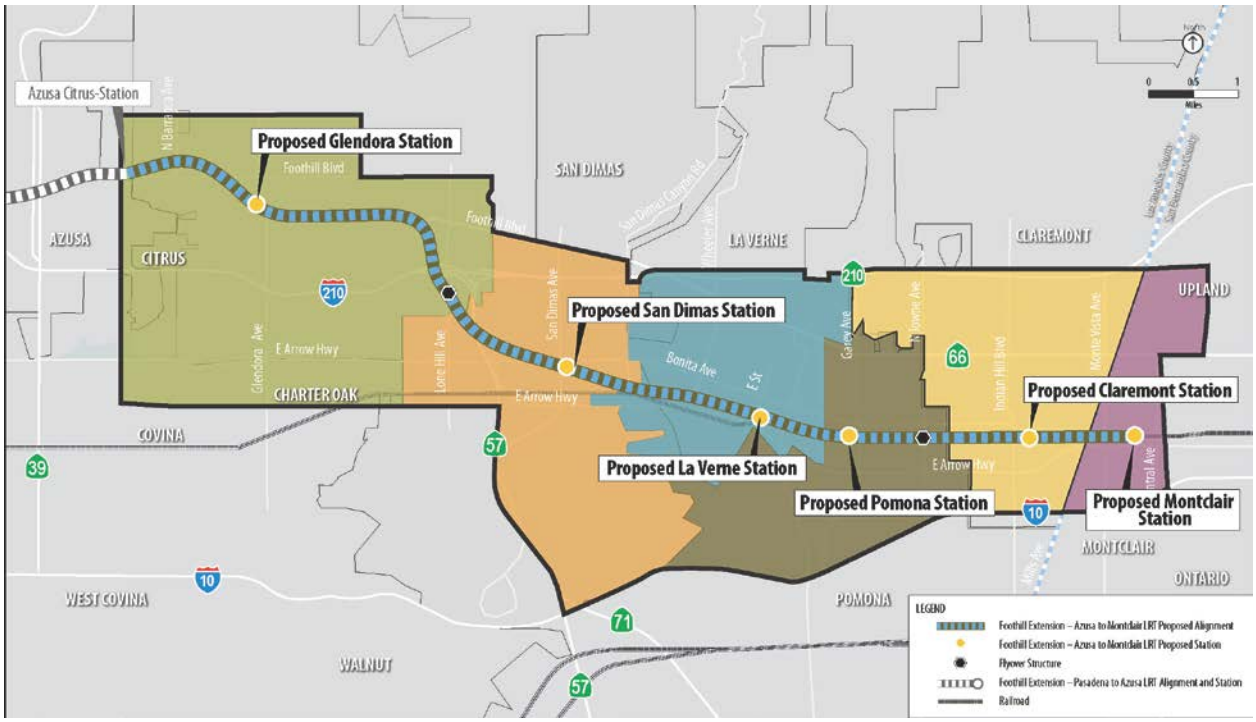
Alternative Under Consideration	AM		PM	
	LOS E	LOS F	LOS E	LOS F
No Build	1	3	2	8
TSM	1	3	3	7
Build Without Mitigation	2	2	5	6
Build With Mitigation	1	---	2	1

Intersections that exceed the significance threshold when compared to the No Build Alternative are considered to be impacted by the proposed project. The number of impacted intersections for each alternative under consideration is summarized in **Table 1-2**. mitigation measures are proposed and the number of intersections that remain impacted (residual impacts) after the implementation of the proposed mitigation measures are also shown. Details of the proposed mitigation measures for each alternative are presented in Chapter 6.0.

Table 1-2: Number of Impacted Intersections Without and With Mitigations

Alternative Under Consideration	Impacted Intersections		Impacted After Mitigations	
	AM	PM	AM	PM
No Build	---	---	---	---
TSM	2	3	0	0
Build	10	12	3	3

Chapter 7.0 presents the conclusions and findings of impacts due to the proposed build alternative. In summary, no unavoidable significant adverse impacts have been identified after mitigation measures have been implemented for transit, parking, pedestrians and bicycles. For traffic circulation, the Build alternative would have three intersections that would continue to be impacted to significant levels (residual impacts) after implementation of the proposed mitigation measures during one or both peak hours. However, it should also be noted that these three intersections will continue to operate at LOS D or better in 2035 which is an acceptable level of service for urban areas. Details of these results by alternative are presented in Chapter 7.0.



Source: Parsons Brinckerhoff 2012

Figure 1-1: Project Study Area and Proposed Alignment and Stations

Chapter 2 – Introduction

This report, which focuses on transportation impacts, is one of a series of technical reports prepared in support of the Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR) for the Metro Gold Line Foothill Extension Azusa to Montclair project. Chapter 1 provides a summary of the traffic study and its findings. Chapter 2 of this report begins with a background of the project and a presentation of the alternatives being considered for evaluation. Chapter 3 presents the analysis methodology and criteria of significance. Chapter 4 evaluates the affected environment for each one of the components of the transportation environment, which consists of transit, traffic circulation, parking and other modes such as pedestrians and bicycles. Chapter 5 assesses the operational and construction impacts for each alternative being considered. Chapter 6 identifies feasible mitigation measures due to operational and construction impacts. Finally, Chapter 7 presents the findings and conclusions and identifies residual impacts.

2.1 BACKGROUND

The proposed project is a 12.6-mile[1] east-west corridor in the San Gabriel Valley of Southern California that generally follows the foothills of the San Gabriel Mountains from Azusa (Los Angeles County), east to Montclair (San Bernardino County). The project area runs along the former Atchison, Topeka & Santa Fe (ATSF) right-of-way, roughly paralleling I-210 and Arrow Highway. The right-of-way in Los Angeles County was acquired by the Los Angeles County Metropolitan Transportation Authority (Metro) and is currently under the control of the Metro Gold Line Foothill Extension Construction Authority (the Construction Authority). The right-of-way for the proposed corridor that lies within San Bernardino County is owned by the San Bernardino Associated Governments (SANBAG). The proposed project would add six new stations (west to east) in Glendora, San Dimas, La Verne, Pomona, Claremont, and Montclair. The project would enable passengers to make a trip from Montclair to downtown Pasadena in just over 40 minutes and from Montclair to downtown Los Angeles in approximately 75 minutes.

Within the study area, the I-210/SR 210 provides the main east-west highway for vehicle traffic, and is a key link in the state and regional goods movement network. From its connection with I-5 on the north side of Los Angeles County, to its connection with I-15 in Rancho Cucamonga, the freeway is the northernmost of three east-west freeways (I-210, I-10, and SR 60) that provide for goods movement from central Los Angeles to the Inland Empire with connections to I-15 and I-215. With the extension of SR 210 from San Dimas to Rancho Cucamonga, a notable portion of the truck traffic that previously used I-10 appears to have shifted to the I-210/SR 210 corridor. Since SR 210 will soon connect I-15 in Rancho Cucamonga with I-215 in San Bernardino, the volume of trucks using this northernmost route is likely to increase. Additional truck traffic would contribute to increased overall congestion, with the effects of more truck traffic being a contributor to peak-hour congestion levels and slower peak-hour speeds. In addition to this potential increase in congestion, there are no plans for substantial increases in I-210 capacity because of the substantial impacts that would occur to adjoining communities if the freeway were widened. Mobility is also affected because there are no other freeways that serve the study corridor. The closest east-west freeway is I-10—located approximately 5 to 7 miles to the south of the project

[1] Actual construction work in Phase 2B would begin at the end of the Phase 2A track, approximately 0.3 mile east of the Azusa Citrus Station, making the actual construction length of phase 2B approximately 12.3 miles.

depending on the route segment—does not serve many of the corridor communities. In addition, I-10 is also heavily congested as is the SR 60, which is located about 5 to 9 miles south of I-210.

An Alternatives Analysis was initiated fall 2001 by the Construction Authority and the San Gabriel Valley Council of Governments to consider transportation strategies that would address the mobility needs of the Pasadena to Montclair corridor. Seven alternatives were examined, and a Locally Preferred Alternative (LPA) (the Pasadena to Montclair Light Rail Transit [LRT] Project) was adopted by the Construction Authority in 2003 and revised in 2004. The LRT project is known as the Foothill Extension, and is an approximately 24-mile east-west light rail extension of the Metro Gold Line Phase I. Subsequent to that, Draft and Final EIS/EIR documents were prepared as well as advanced conceptual engineering for Phases 2A (Pasadena to Azusa) and 2B (Azusa to Montclair). In February 2007, the Final EIR for the Phase 2A project was approved and certified by the Construction Authority. Approval of Phase 2B and a maintenance and operations (M&O) facility was deferred. Thereafter, Phase 2B was revised and became a separate project, which will be an extension of Phase 2A. To avoid confusion, the project is now named the Metro Gold Line Foothill Extension Azusa to Montclair. The proposed horizon year for this Phase 2B project is 2035. The construction of Phase 2A is expected to be initiated sometime within the next several months.

2.1.1 No Build Alternative

The No Build Alternative as defined by FTA represents the baseline case consisting of existing and committed elements of the region's transportation plan. The No Build Alternative includes all existing highway and transit route facilities, and the committed highway and transit projects expected to be in place by 2035, specified in Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan (RTP), and Metro 2009 Long Range Transportation Plan (LRTP). The 2009 LRTP includes a balance of highway and transit improvements, including an expanded bus network. Projects within the 2009 LRTP relevant to the corridor include the following:

- **Transit projects** include countywide (Los Angeles and San Bernardino Counties) bus service improvements; commuter rail (Metrolink) improvements; and light rail and heavy rail transit improvements.
- **Freeway improvements** include projects on freeways such as the previously completed section of SR 210 between San Dimas (Foothill Boulevard) and I-15 in Rancho Cucamonga and the nearly completed section between that point and I-215 in San Bernardino.
- **Smart street projects** include improvements such as synchronized traffic signals, on-street parking removal, frontage road and grade separation construction, and key intersection improvements to improve traffic flow.
- **Arterial improvement projects** include improvements to existing arterial roadways.

2.1.2 Transportation Systems Management Alternative

The Draft EIS/EIR will evaluate transportation and environmental effects of modest improvements in the highway and transit systems beyond those in the No Build Alternative. The Transportation System Management (TSM) Alternative would include low-cost improvements to the No Build Alternative to reduce delay and enhance mobility. The proposed TSM Alternative includes intersections improvements,

signal synchronization, and a rapid bus line that resembles service of the Build Alternative from Azusa to Montclair. The proposed frequency of the rapid bus service would be 10-minute headways for each direction during the peak hours, and 20-minute headways during the off-peak hours. This service would add six new TSM stations in Glendora, San Dimas, La Verne, Pomona, Claremont, and Montclair. This alternative would require minimal infrastructure improvements and could operate on the existing roadway network.

2.1.3 Build Alternative

The Build Alternative would be an LRT system that would begin at the current terminus of the Metro Gold Line Foothill Extension at the Azusa-Citrus Station and continue east to Montclair. The proposed alignment would use the existing Metro/Construction Authority and SANBAG right-of-way through the San Gabriel Valley for LRT service. The Build Alternative would extend the Metro Gold Line Foothill Extension LRT system from the eastern boundary of Azusa to the Montclair Transcenter located in Montclair, which borders Upland.

The Build Alternative would include two LRT tracks throughout and one freight track between the eastern boundary of Azusa and Pomona. In Pomona, the single freight track would then join with the double Metrolink tracks and continue to Montclair and beyond. The bus network in the study area for the Build Alternative would be similar to the No Build Alternative but would be augmented with the expected addition of community feeder service to the LRT stations when there is no local service provided by Foothill Transit, Omnitrans, or other existing bus service provider.

2.1.3.1 Light Rail Transit Operations

The proposed LRT system would have the following operational assumptions: The headways for the initial travel forecasts for the Build Alternative would consist of 10-minute peak service and 20-minute off-peak service. The peak service periods are from 6 to 9 AM and from 3 to 7 PM. It is assumed that the Regional Connector transit project will be in place and operational, which would mean that every other train would proceed from Sierra Madre Villa Station to the Montclair Transcenter. Two LRT operating lines would be coded for the Gold Line Foothill Extension service for this alternative. The coding would be (1) Line 1 from Long Beach to Sierra Madre Villa (5-minute peak/12-minute off peak); and (2) Line 2 from Long Beach to the Montclair Transcenter (10-minute peak/20-minute off peak). The travel time from Union Station to Sierra Madre Villa would be approximately 36 minutes for the 13.7 miles (current Phase I operation). The travel time from Sierra Madre Villa to the Montclair Transcenter is forecasted to be approximately 39 minutes for the 24-mile Gold Line Foothill Extension. Also, the estimated travel time from Azusa to the Montclair Transcenter is approximately 18 minutes, which equates to an average operating speed of about 42 miles per hour.

The same LRT technology and the same types of system components would be used as the existing Metro Gold Line. The LRT vehicles can be linked together to accommodate up to 500 passengers per 3-car train. They will be electrically powered by overhead wires. Eight traction power substations (TPSSs) would be constructed along the guideway (at about 1- to 1.5-mile intervals) to provide electrical power to the line. Where possible, TPSS sites would be located near a station. In addition, TPSS sites would be located within the existing rail right-of-way or within properties to be acquired for stations or parking.

The design and implementation of LRT tracks at existing freeway/railroad grade separations will be coordinated with the California Department of Transportation (Caltrans) and will comply with applicable

Caltrans standards, including required vertical and horizontal clearances, structure loadings, interchange ramp traffic control and construction traffic management plans (TMPs). The LRT alignment will cross Caltrans freeways at the following grade separate locations:

- I-210 – LRT undercrossing west of Lone Hill Avenue
- SR 57 – LRT undercrossing south of Gladstone Avenue

2.1.3.2 Stations and Parking Facilities

The Build Alternative would include six new stations, with one in each of the following cities along the corridor: Glendora, San Dimas, La Verne, Pomona, Claremont, and Montclair. Potential station locations were defined in consultation with the corridor cities. Parking facilities would be provided at each new station. It should be noted that some station parking facilities, specifically in Glendora, San Dimas, La Verne and Pomona would require some land acquisition to accommodate an adequate number of parking spaces. Parking provisions at each station would be designed to accommodate patrons using the LRT service. The estimates of parking demand and the number of parking stalls provided at each station would be partially guided by the boarding projections from the transportation modeling process. Although proposed locations for parking were developed based on the 2035 travel demand forecast, it is assumed that staged implementation of parking could occur. Staged implementation would enable existing or new surface lots or garages to serve initial ridership, with new or expanded parking structures built as ridership increases. For the purpose of this environmental analysis, the impacts of 2035 parking demand have been assessed.

2.1.3.3 Metrolink Services

A portion of the proposed LRT alignment would operate parallel to the existing San Bernardino-Los Angeles Metrolink Commuter trains, which serve three Metrolink stations: Pomona, Claremont, and Montclair. In the PM peak hour, there are four eastbound Metrolink trains (peak direction) to San Bernardino operating at 20 minutes during the peak (four trains per hour) and one westbound train to the Los Angles Union Station every hour. In the AM peak hour, there are four westbound trains and one eastbound train.

Chapter 3 – Methodology

This chapter describes the methodology and assumptions used to evaluate and analyze impacts to the transportation environment due to the proposed Metro Gold Line Foothill Extension Azusa to Montclair project. The analysis evaluated transportation impacts due to the proposed project on transit, traffic circulation, parking, and other modes such as pedestrians and bicycles. A list of roadway segments and intersection locations to be studied were identified at the beginning of the project. The list consisted of 90 intersection locations and 35 roadway segments. The daily traffic volumes along the roadway segments and the AM and PM peak period turning movement counts at each intersection were collected by traffic surveyors on a typical weekday when schools were in session.

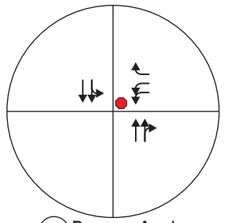
3.1 ANALYTICAL TOOLS AND DATA SOURCES

To determine the existing traffic operating conditions in the study area and conduct traffic analysis for year 2035, daily vehicle traffic volumes were taken at 35 roadway segments and manual vehicle turning movement counts were conducted at 90 intersection locations. The study area jurisdictions for the traffic analysis are Glendora, San Dimas, La Verne, Pomona, and Claremont in Los Angeles County and Upland and Montclair in San Bernardino County. The roadway segment analysis was performed using average daily traffic (ADT) volumes taken from the 24-hour machine counts. The intersections were analyzed using AM and PM peak hour intersection turning movement volumes. Data collection was conducted on a representative weekday (Tuesday, Wednesday, or Thursday) in May 2010 at the locations shown on **Figures 3-1 through 3-6**. The raw 24-hour machine count and intersection turning movement volume data are presented in **Appendix A**.

Of these count locations, one roadway segment traverses two cities, and seven intersections are located on the boundary of two or more cities. For purposes of the traffic analysis, the segment and intersections were assigned to just one jurisdiction. Their locations and assigned jurisdictions are shown in **Table 3-1**. The one roadway segment is Fulton Road between Bonita Avenue and Arrow Highway and includes the Metrolink Driveway. This segment is between La Verne on the west and Pomona on the east. For the purpose of this analysis, the assigned jurisdiction is Pomona.

Table 3-1: Intersections Located Between Two Jurisdictions

North/South Street	East/West Street	West City	East City	Assigned Jurisdiction
Lone Hill Avenue	Gladstone Street	Glendora	San Dimas	San Dimas
San Dimas Canyon Road	Bonita Avenue	San Dimas	La Verne	San Dimas
San Dimas Canyon Road	Arrow Highway	San Dimas	La Verne	San Dimas
La Verne Avenue	Arrow Highway	La Verne	Pomona	La Verne
Fulton Road	Bonita Avenue	La Verne	Pomona	Pomona
Fulton Road	Arrow Highway	La Verne	Pomona	Pomona
Claremont Boulevard	First Street	Claremont	Montclair/Upland	Claremont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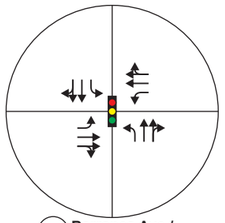
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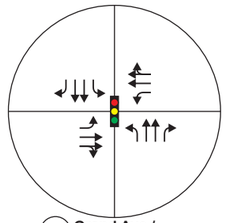
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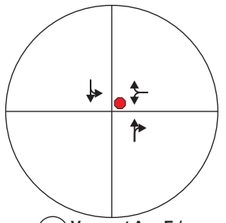
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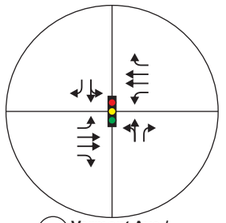
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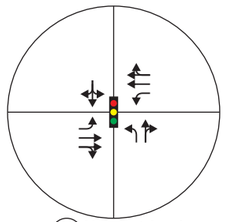
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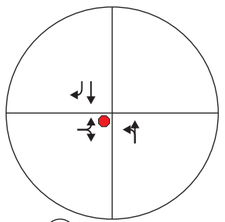
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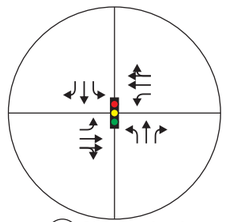
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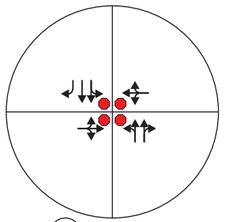
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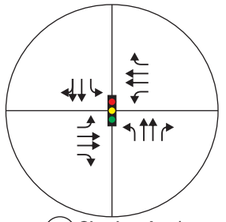
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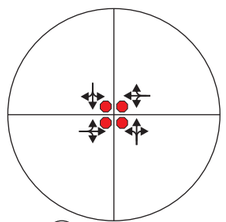
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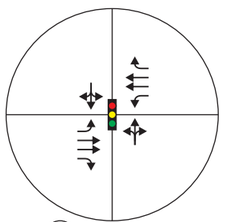
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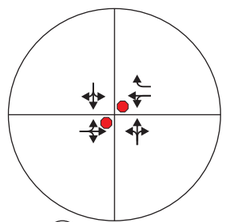
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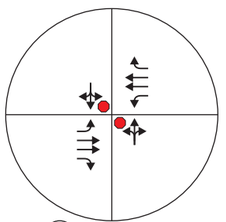
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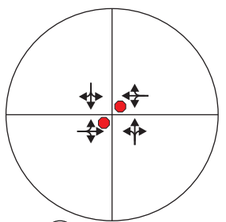
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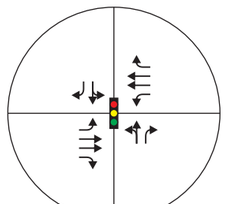
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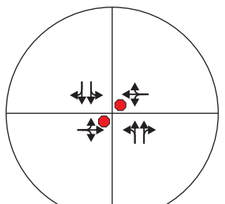
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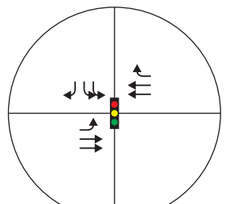
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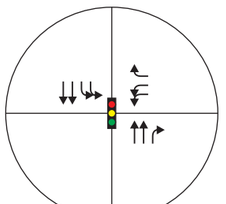
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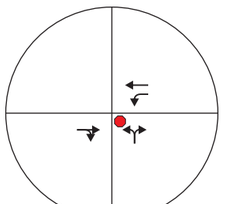
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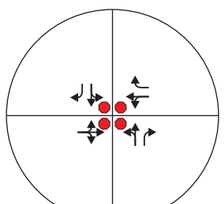
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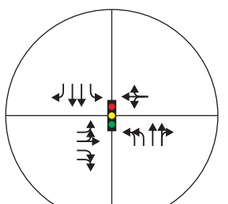
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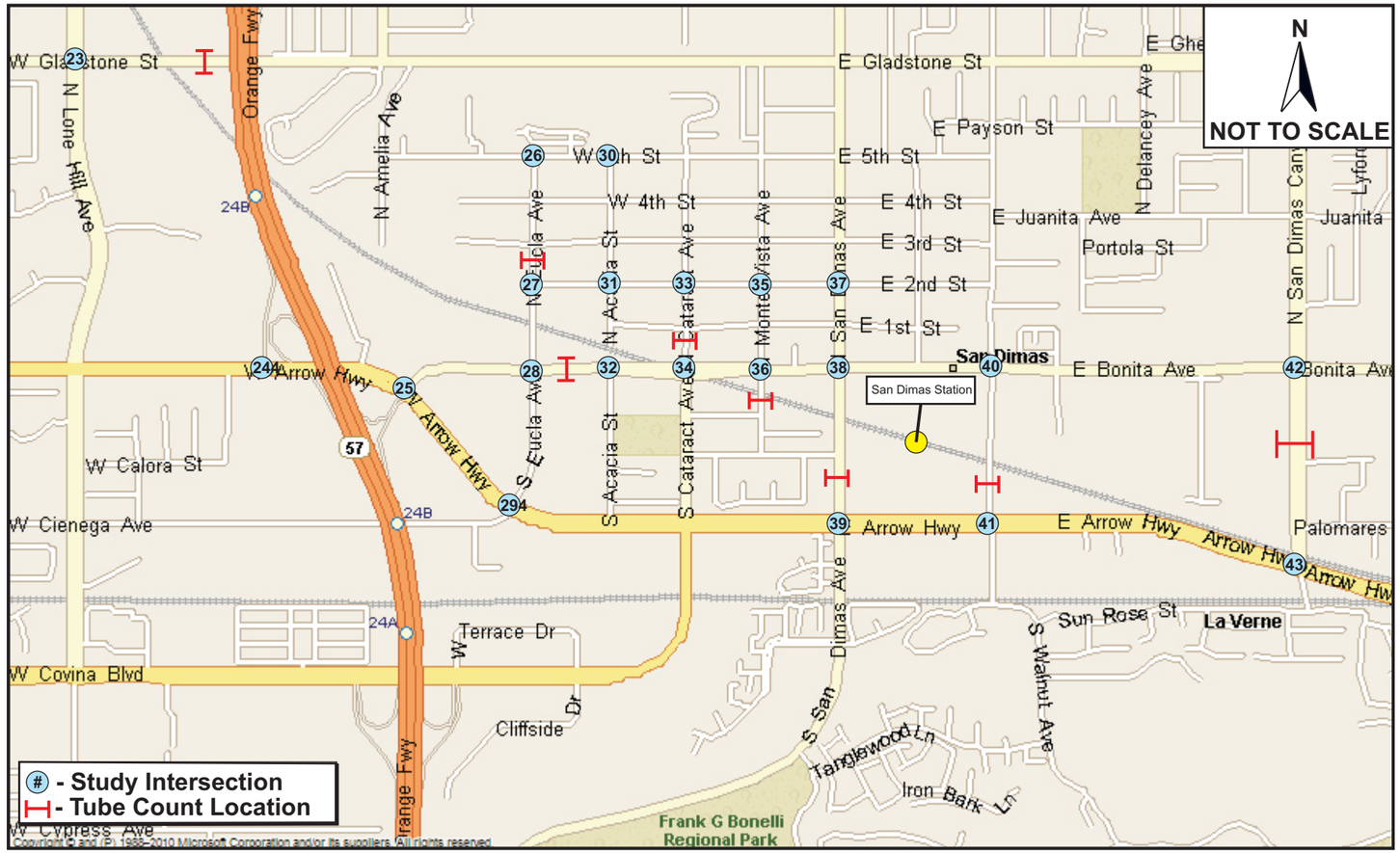
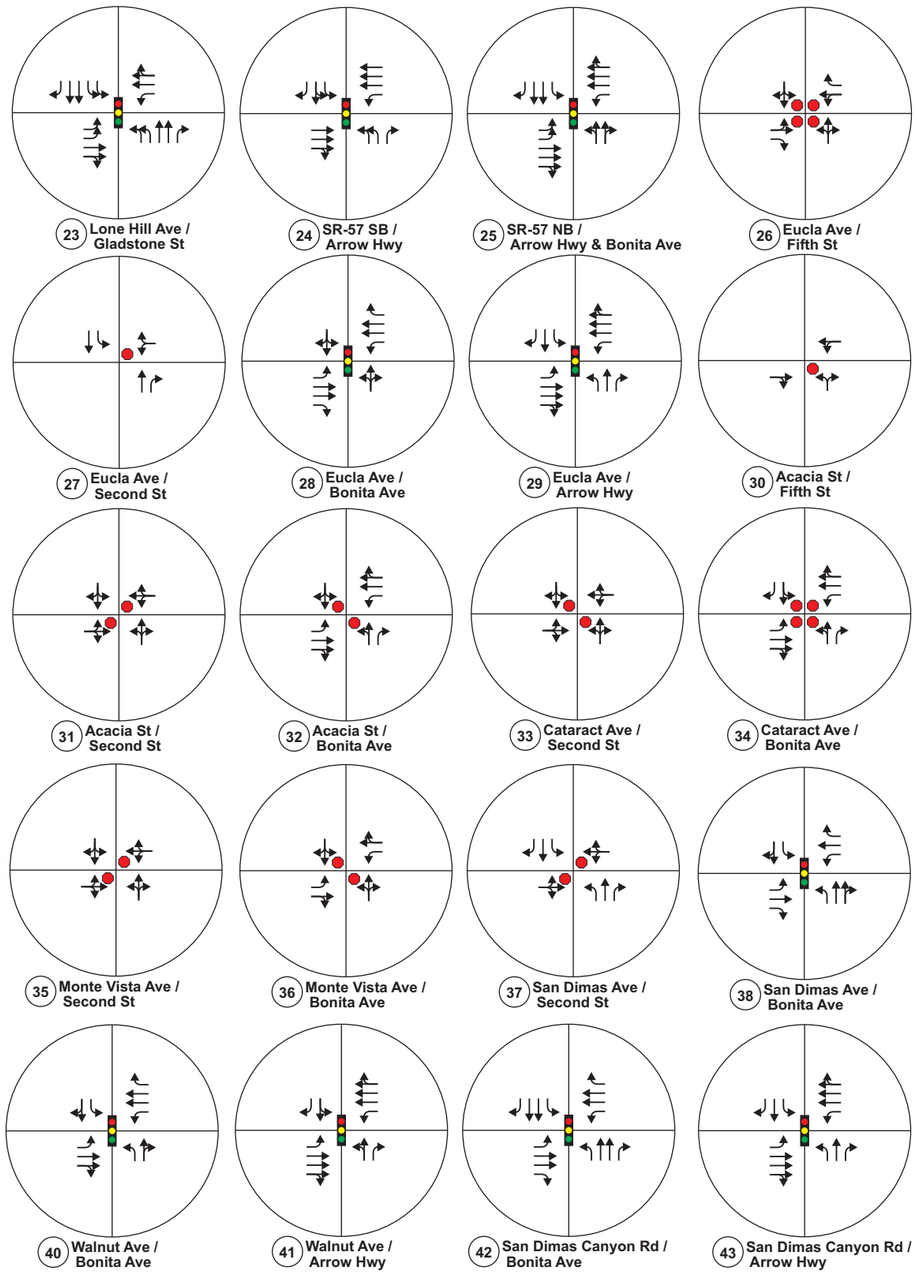
INTUEOR MAXIMIZING VALUE

Metro Gold Line Foothill Extension – Azusa To Montclair

Figure 3-1: Traffic Analysis Count Locations: Glendora

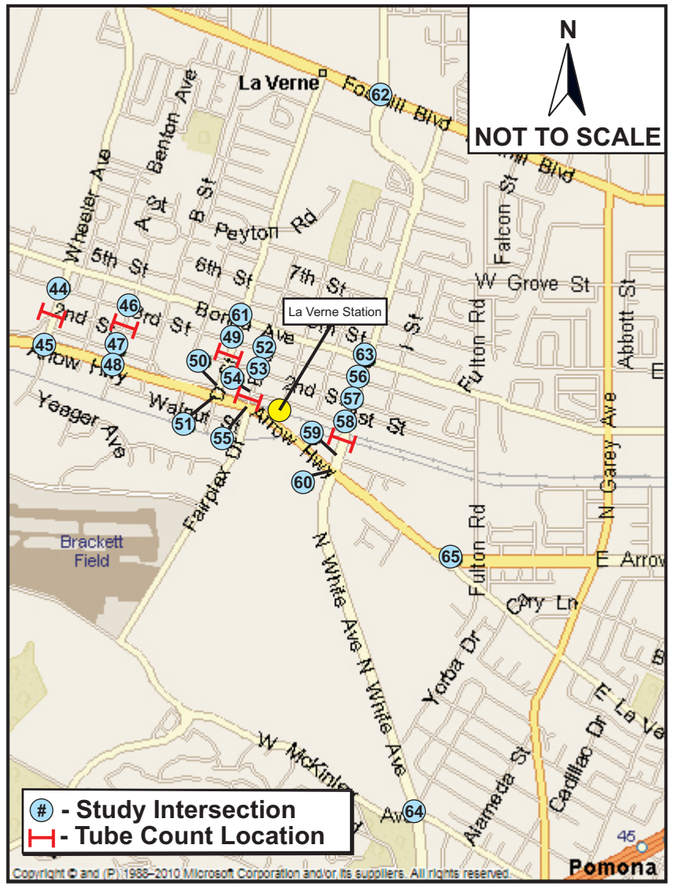


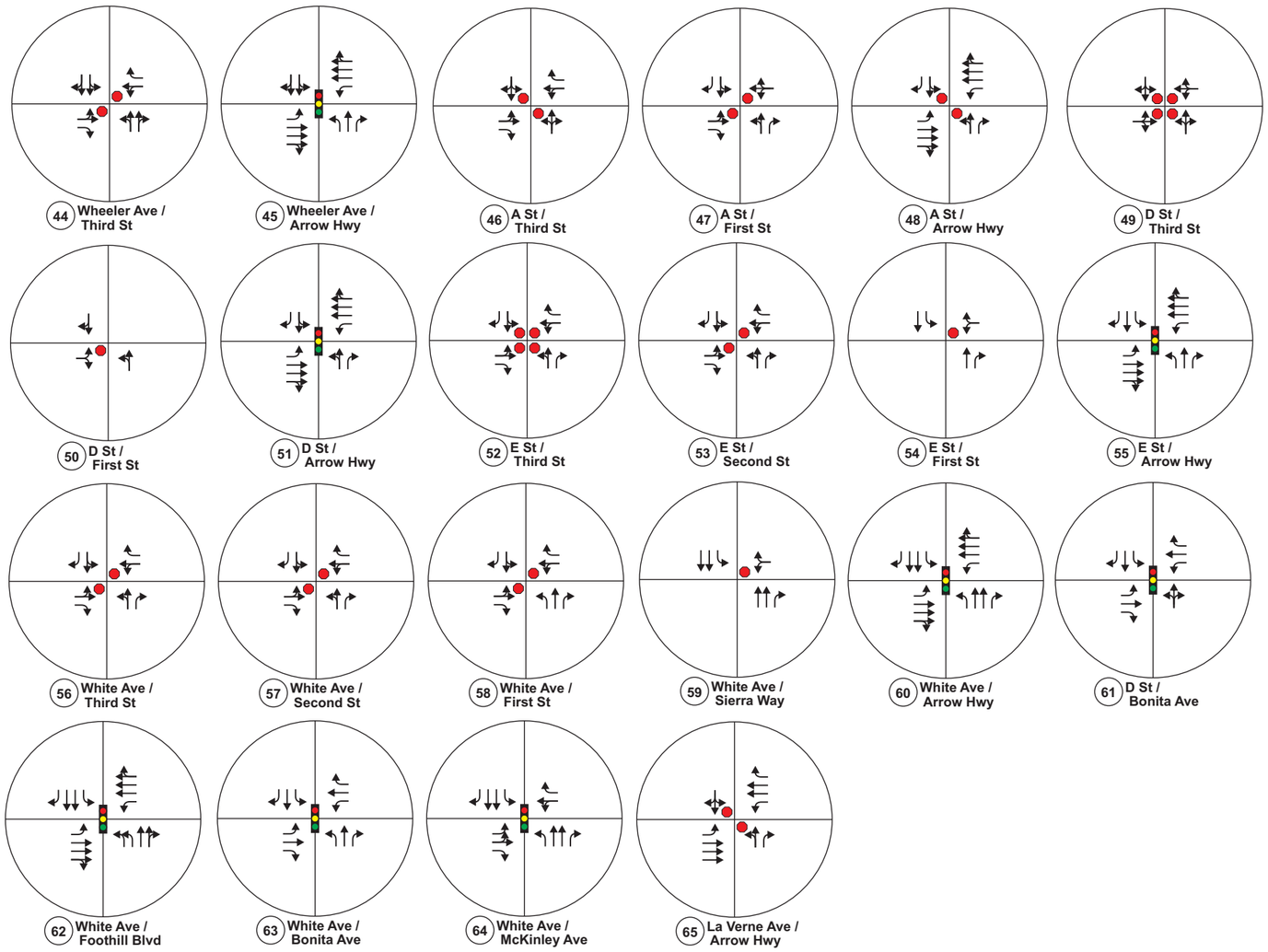


INTUEOR
MAXIMIZING VALUE

Metro Gold Line Foothill Extension – Azura To Montclair

Figure 3-2: Traffic Analysis Count Locations: San Dimas

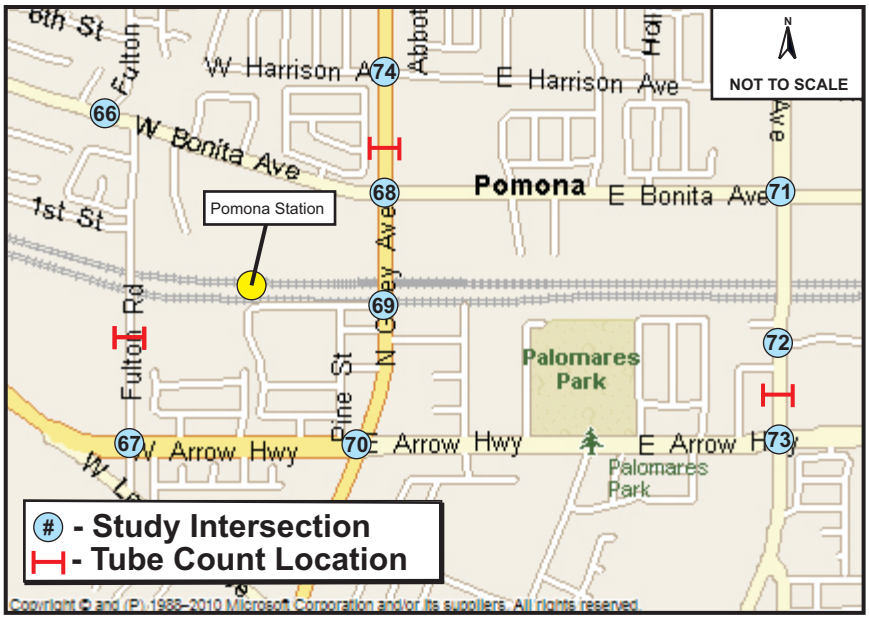




INTUEOR MAXIMIZING VALUE

Metro Gold Line Foothill Extension – Azura To Montclair

Figure 3-3: Traffic Analysis Count Locations: La Verne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W Harrison Ave
74
Abbot
E Harrison Ave
Hall
Ave
NOT TO SCALE
66
W Bonita Ave
Pomona
E Bonita Ave
71
1st St
Pomona Station
68
Garey Ave
69
Fulton Rd
Pine St
N Garey Ave
72
Palomares Park
67
W Arrow Hwy
70
E Arrow Hwy
E Arrow Hwy
73
Palomares Park
- Study Intersection
- Tube Count Location
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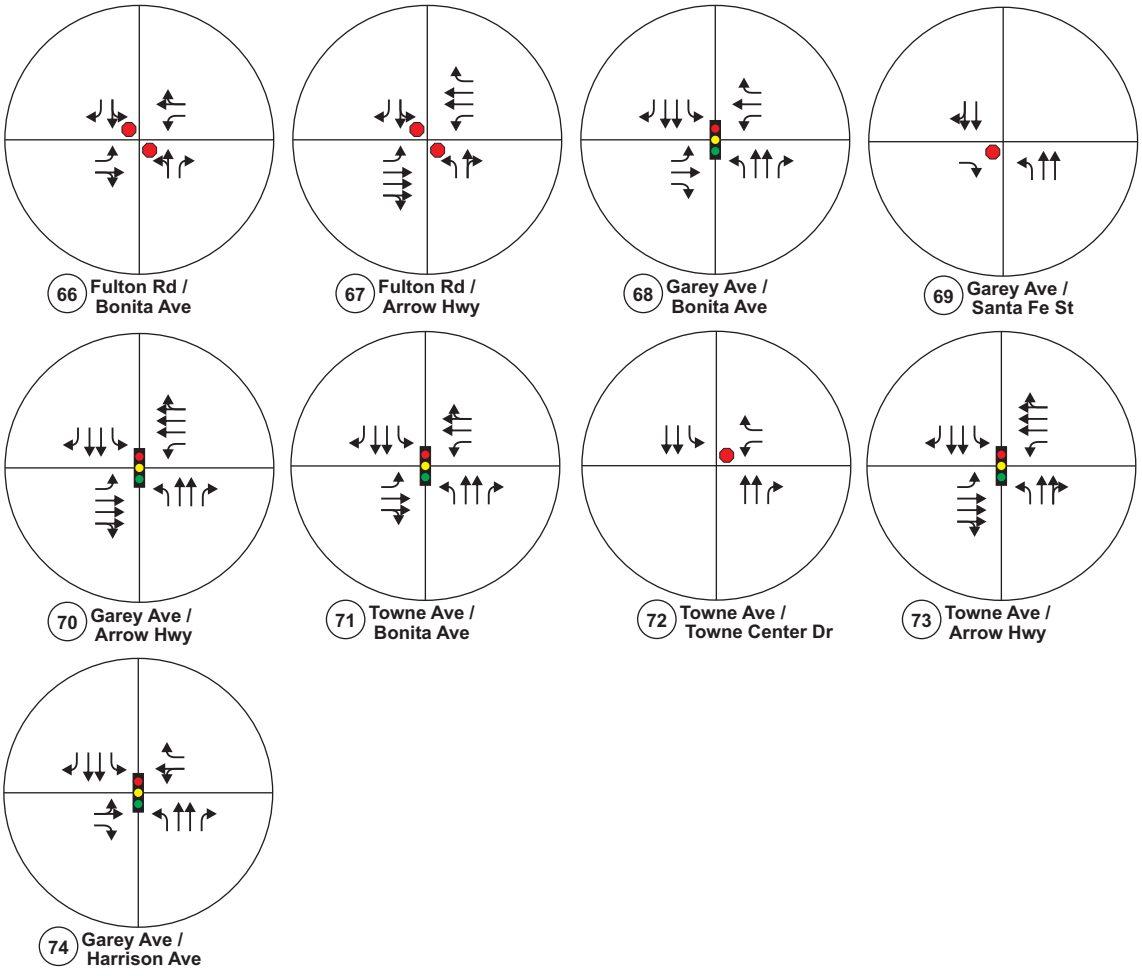
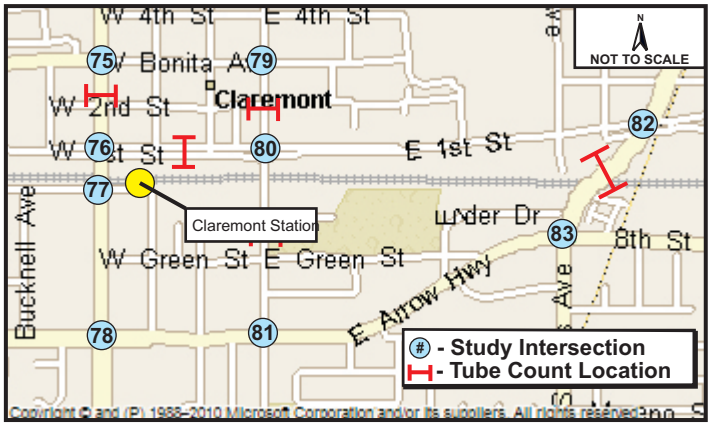
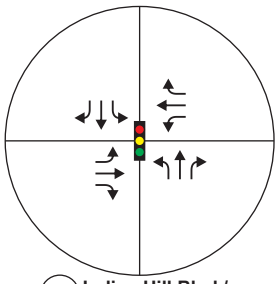
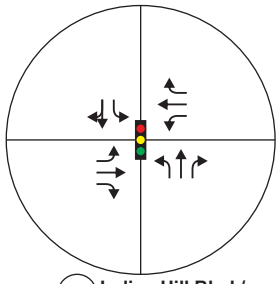

66 Fulton Rd / Bonita Ave
67 Fulton Rd / Arrow Hwy
68 Garey Ave / Bonita Ave
69 Garey Ave / Santa Fe St
70 Garey Ave / Arrow Hwy
71 Towne Ave / Bonita Ave
72 Towne Ave / Towne Center Dr
73 Towne Ave / Arrow Hwy
74 Garey Ave / Harrison Ave

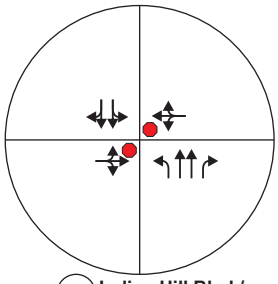




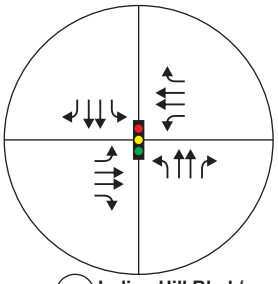
75 Indian Hill Blvd / Bonita Ave



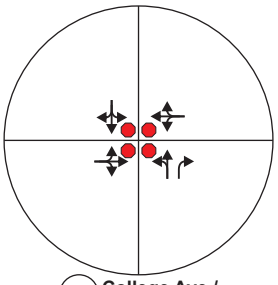
76 Indian Hill Blvd / First St



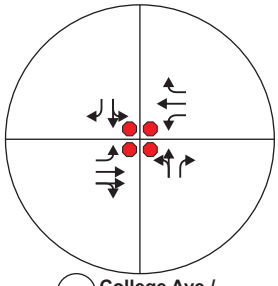
77 Indian Hill Blvd / Santa Fe St



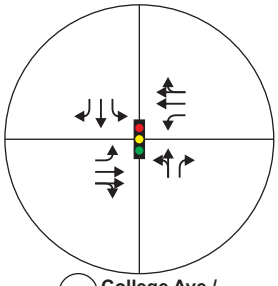
78 Indian Hill Blvd / Arrow Hwy



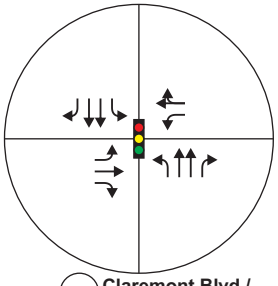
79 College Ave / Bonita Ave



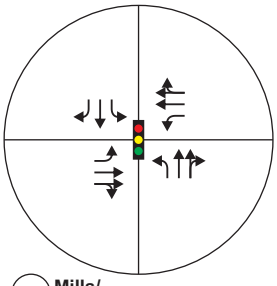
80 College Ave / First St



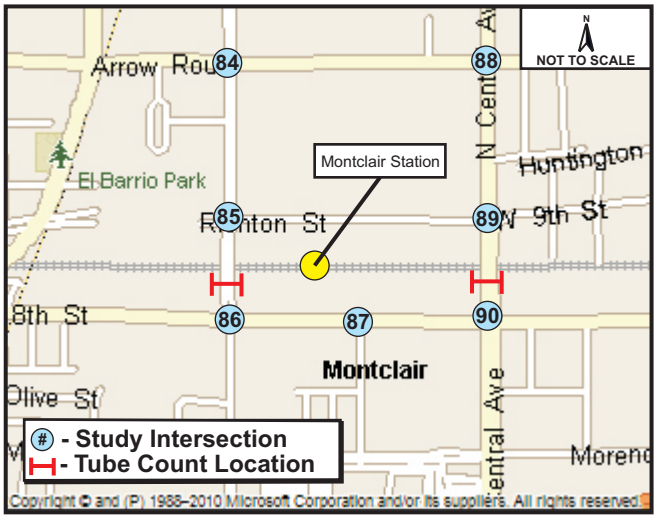
81 College Ave / Arrow Hwy

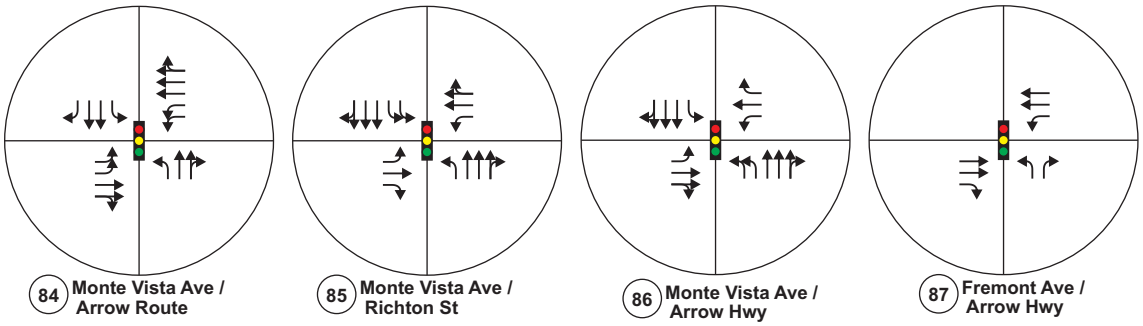


82 Claremont Blvd / First St



83 Mills/ Claremont / Arrow Hwy



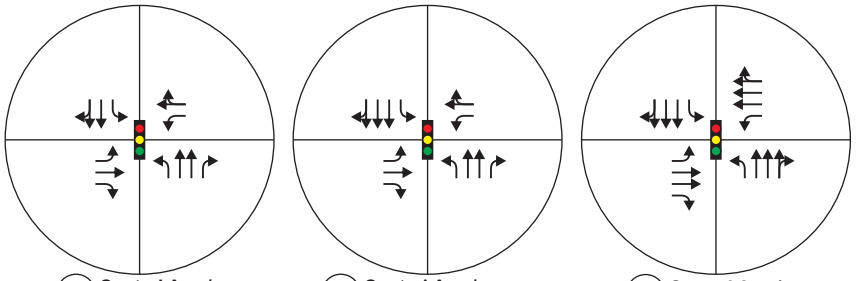


84 Monte Vista Ave / Arrow Route

85 Monte Vista Ave / Richton St

86 Monte Vista Ave / Arrow Hwy

87 Fremont Ave / Arrow Hwy



88 Central Ave / Arrow Route

89 Central Ave / Richton St / W 9th St

90 Central Ave / Arrow Hwy

3.1.1 Approach to Estimating Transportation Effects

Each of the 35 roadway segments was analyzed to determine daily traffic operating conditions. The performance of an arterial street network is typically measured in terms of level of service using the *Transportation Research Circular No. 212: Interim Materials on Highway Capacity* or volume-to-capacity ratio (V/C) methodology. LOS is a qualitative measure used to describe the condition of traffic flow, ranging from excellent (LOS A) to overloaded (LOS F). LOS D is typically recognized as the minimum acceptable LOS in urban areas. **Table 3-2** presents the LOS definitions for roadway segments

Table 3-2: Roadway Segment LOS Definitions

Level of Service	V/C Range	Definition
A	0.000 – 0.600	EXCELLENT. Free flow, light volumes
B	0.601 – 0.700	VERY GOOD. Free to stable flow, light to moderate volumes
C	0.701 – 0.800	GOOD. Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.801 – 0.900	FAIR. Approaches unstable flow, moderate to heavy volumes, limited freedom to maneuver
E	0.901 – 1.000	POOR. Extremely unstable flow, heavy volumes, maneuverability and psychological comfort extremely poor
F	>1.000	FAILURE. Forced or breakdown conditions, slow speeds, tremendous delays with continuously increasing queue lengths

Source: Transportation Research Board, *Transportation Research Circular No. 212: Interim Materials on Highway Capacity*, January 1980.

Each study intersection was analyzed to determine peak hour operations and LOS. LOS for signalized and unsignalized intersections is generally based on delay values using the Transportation Research Board 2000 *Highway Capacity Manual* methodology. These values are calculated using the average delay (in seconds) per approaching vehicle**. Table 3-3** and **Table 3-4** present the LOS definition for signalized and unsignalized (all way and two-way stop-controlled) intersections. The Synchro software version 7.0 was used to analyze peak hour intersection traffic operating conditions.

Table 3-3: Signalized Intersections – LOS Definitions		
Level of Service	**Average Vehicle Delay (Seconds)**	**Definition**
A	< 10.0	EXCELLENT. No vehicle waits longer than one red light and no approach phase are fully used.
B	> 10.0 and < 20.0	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	> 20.0 and < 35.0	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	> 35.0 and < 55.0	FAIR. Delays may be substantial during portions of the peak hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	> 55.0 and < 80.0	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 80	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.
Source: Transportation Research Board, *Highway Capacity Manual* (2000), Special Report 209, Second Print July 2005.		

Table 3-4: Unsignalized Intersections – LOS Definitions	
Level of Service	**Average Vehicle Delay (Seconds)**
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0
Source: Transportation Research Board, *Highway Capacity Manual* (2000), Special Report 209, Second Print July 2005.	

Traffic forecasts in the vicinity of the proposed grade crossing locations in each city were obtained from the 2003 and 2035 SCAG's RTP models to reflect the anticipated growth within the project area. Forecasts for the No Build Alternative would account for background growth in traffic due to additional regional and sub-regional land use development (cumulative projects) and population growth.

The CEQA Guidelines define "significant effect" as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project. The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part

of the public agency involved, based to the extent possible on scientific and factual data. Under CEQA, every agency in the state "is encouraged to develop and publish thresholds of significance" against which to compare the environmental impacts of projects. Such thresholds are to be published for public review and supported by substantial evidence before their adoption. A lead agency will normally consider the environmental impacts of a project to be significant if and only if they exceed established thresholds of significance. Under NEPA, significance is used to determine whether an EIS, or some lower level of documentation, will be required. If adequate data and analytical procedures are available, specific thresholds that indicate degradation of the resources of concern should be included in the NEPA analysis and defined by agency officials.

The impact methodology used to determine adverse or significant impacts at the study intersections, due to the proposed Gold Line Foothill Extension project, is to identify the change in delay between the TSM or Build conditions and the No Build. Since the project area includes several jurisdictions, an impact criterion that is uniform and can be applied across all the jurisdictions was selected. Consequently, the significant impact criteria used for this comparison was based on the Traffic Impact Analysis (TIA) Report Guidelines set forth by the County of Los Angeles Department of Public Works in 1997.

Based on the guidelines, an intersection is considered to be adversely or significantly impacted, in the TSM or Build condition, if the change in delay from the No Build condition is equal to or greater than the criteria set forth in **Table 3-5**. At each impacted location mitigation measures were identified. The impact criteria will be used under both NEPA and CEQA.

Table 3-5: Los Angeles County Intersection Impact Thresholds

Control Type	Final LOS with Project	V/C Increase from the No Build	Significant Increase in Delay (Seconds/Vehic)
Unsignalized Intersection	LOS C	≥ 0.04	≥ 4
	LOS D	≥ 0.02	≥ 2
	LOS E/F	≥ 0.01	≥ 1.5
Signalized Intersection	LOS C	≥ 0.04	≥ 6
	LOS D	≥ 0.02	≥ 4
	LOS E/F	≥ 0.01	≥ 2.5

Source: *Los Angeles County Traffic Impact Analysis Study Guidelines*, 1997.

Chapter 4 – Affected environment

This chapter of the report presents the existing conditions for each transportation component being evaluated. The transportation environment consists of transit, traffic circulation, parking and other modes such as pedestrians and bicycles.

4.1 PUBLIC TRANSIT

4.1.1 Study Area Transit Network

The study area has one of the most extensive networks of transit routes in the San Gabriel Valley. These routes generally follow a grid pattern and include many express and local routes. Four public transit agencies operate bus service within the study area: Foothill Transit, Omnitrans, Riverside Transit Authority (RTA), and Metrolink commuter rail service. Table 4-1 lists the current transit routes (including the end destinations of their services) within the study area.

Table 4-1: Public Transit Routes within the Study Area

Operator	Line(s)	Destination
Foothill Transit	187	Montclair – Claremont – Glendora – Pasadena
	197	Pomona – Claremont – Montclair
	281	Glendora – West Covina – Puente Hills Mall
	284	West Covina – Covina – San Dimas – Glendora
	291	La Verne – Pomona – South Pomona
	292	Claremont – Pomona
	480	Montclair – Pomona – West Covina
	488	Glendora – West Covina – El Monte
	492	Montclair – Arcadia – El Monte
	494	San Dimas – Glendora – El Monte
	498	Citrus College – Los Angeles (Express)
	499	San Dimas Park & Ride – Via Verde Park & Ride – Los Angeles (Express)
	690	Montclair – Pasadena
	699	Montclair - Fairplex Park & Ride - Cal State Los Angeles - USC Medical Center – LA (Express)
	851	Covina – Glendora
	855	Pomona TransCenter – Claremont
Omnitrans	65	Montclair – Chino Hills
	66	Fontana – Foothill – Montclair
	67	Montclair – Baseline – Fontana
	68	Chino – Montclair – Chaffey College
	80	Montclair - Ontario Convention Center - Rancho Cucamonga
RTA	204	Riverside – Montclair Transit Center
Metrolink	San Bernardino Line	Los Angeles – Claremont – San Bernardino

Source: 2010 Foothill Transit, Omnitrans, RTA and Metrolink timetables.

The predominant flow of transit passengers in the corridor is east-west, so most of the heavily used routes are those that run in an east-west direction. These include bus routes that operate on Foothill Boulevard, I-210, I-10, Bonita Avenue, and Arrow Highway. Many of these routes experience high ridership during peak periods, particularly Foothill Transit route 498, where headways (frequency of service) during the morning peak period average 5 to 10 minutes. **Table 4-2** shows the headways for all bus lines in the corridor and illustrates the high demand for service on many of the lines. In addition, the Gold Line Foothill Extension from Pasadena to Azusa is assumed to be operational and provides LRT service to riders from Union Station in downtown Los Angeles to Azusa.

Table 4-2: Existing Frequency of Transit Service (in minutes) (2010)

Operator	Line	Days	AM Peak 6-9 AM	Midday 9 AM-3 PM	PM Peak 3-7 PM	Evening 7 PM-11 PM	Owl 11 PM-6 AM	Dir.	Hours of Service
Foothill Transit	187	Weekday Weekend	20 30	20 30	20 30	20 30	No Service No Service	EB/WB	4 AM-11 PM 5 AM-10 PM
	197	Weekday Weekend	30 60	30 60	30 60	60 60	No Service No Service	NB/SB	5:30 AM-8 PM 7 AM-7 PM
	281	Weekday Weekend	30 60	30 60	30 60	30 60	No Service No Service	NB/SB	5 AM-8:30 PM 6 AM-6 PM
	284	Weekday Weekend	60 80	90 40	45 80	45 No Service	No Service No Service	NB/SB	6 AM-8 PM 6:30 AM-5 PM
	291	Weekday Weekend	20 30	15-20 30	15 30	30 No Service	No Service No Service	NB/SB	4:30 AM-10 PM 6 AM-6 PM
	292	Weekday	30	No Service	30	No Service	No Service	NB/SB	6 AM-4 PM
	480	Weekday Weekend	30 30	30 60	30 30	30 30	60 No Service	EB/WB	5 AM-12 AM 5 AM-10 PM
	488	Weekday Weekend	30 60	60 60	30 60	60 60	No Service No Service	EB/WB	4 AM-9 PM 6:30 AM-7 PM
	498	Weekday	10-15	30	5-15	No Service	No Service	EB/WB	2 PM-7 PM 4 AM-8 AM
	492	Weekday Weekend	30 30	30 30	30 30	60 No Service	No Service No Service	EB/WB	5 AM-9 PM 6 AM-6 PM
	494	Weekday	30	No Service	30	No Service	No Service	EB/WB	4 PM-6 PM 5 AM-7 AM
	499	Weekday	12	No Service	15-30	No Service	No Service	EB/WB	2:45 PM-6:40 PM 5:30 AM-8 AM
	690	Weekday	10-20	No Service	30	No Service	No Service	EB/WB	3:30 PM-6:30 PM 5 AM-8 AM
	699	Weekday	10-20	40	10-15	No Service	No Service	EB/WB	2 PM-6:30 PM 4 AM-8 AM
	851	Weekday	30	No Service	60	No Service	No Service	NB/SB	6:30 AM-4:30 PM

Table 4-2: Existing Frequency of Transit Service (in minutes) (2010)

Operator	Line	Days	AM Peak 6-9 AM	Midday 9 AM-3 PM	PM Peak 3-7 PM	Evening 7 PM-11 PM	Owl 11 PM-6 AM	Dir.	Hours of Service
	855	Weekday	15-20	No Service	15-30	No Service	No Service	NB/SB	6:30 AM-3:30 PM
Omnitrans	65	Weekday	60	60	60	60	No Service	NB/SB	4:30 AM-10 PM
		Saturday	60	60	60	No Service	No Service		6:30 AM-6:30 PM
		Sunday	60	60	60	No Service	No Service		6:30 AM-6:30 PM
	66	Weekday	15	15	15	30	No Service	EB/WB	4 AM-10:30 PM
		Saturday	30	30	30	No Service	No Service		6 AM-9 PM
		Sunday	30	30	30	No Service	No Service		6 AM-6 PM
	67	Weekday	60	60	60	No Service	No Service	EB/WB	5:30 AM-7 PM
	68	Weekday	30	30	30	60	No Service	NB/SB	5 AM-10:30 PM
		Saturday	60	60	60	60	No Service		6 AM-6 PM
	80	Weekday	60	60	60	60	No Service	NB/SB	6 AM-8 PM
		Saturday	60	60	60	No Service	No Service		7 AM-7 PM
		Sunday	60	60	60	No Service	No Service		7 AM-7 PM
RTA	204	Weekday	40-50	No Service	50	No Service	No Service	NB/SB	5 AM-7 PM

Source: 2010 Foothill Transit, Omnitrans, and RTA timetables.
NB = northbound
SB = southbound
EB = Eastbound
WB = Westbound

4.1.2 Station-Area Transit Service

Glendora

Foothill Transit routes 284 and 851 service the area where the proposed Glendora Station would be sited along Glendora Boulevard.

San Dimas

The proposed San Dimas Station would be located between San Dimas and Walnut Avenues. Foothill Transit routes 492, 494, 499, and 690 service this area.

La Verne

The proposed La Verne Station would be located east of E Street, just north of Arrow Highway. The nearest bus routes are Foothill Transit routes 197 and 492. Route 197 runs along Arrow Highway and White Avenue, and comes within approximately 0.25 mile east of the station. Route 492 runs along Bonita Avenue, approximately 0.25 mile north of Arrow Highway.

Pomona

The proposed Pomona Station would be located west of Garey Avenue, east of the existing Metrolink station. The new station would be accessible via Foothill Transit routes 197 (on Arrow Highway), 291 (on Garey Avenue), and 492 (on Bonita Avenue), and Metrolink.

Claremont

The proposed Claremont Station would be located across from the historic Atchison, Topeka & Santa Fe Depot. Foothill Transit routes 187, 197, 292, 480, 492, 690, and 855, and Metrolink would service the new station.

Montclair

The proposed Montclair Station would be part of the existing Metrolink station at the Montclair Transcenter. Foothill Transit routes 187, 197, 480, 492, 690, 699, and Silver Streak service the TransCenter area. The station is also accessible via Omnitrans routes 65, 66, 67, 68, and 80; RTA 204, and Metrolink.

4.1.3 Conditions for Transit Operations

Greater Los Angeles is one of the most congested urban areas in the country. Consequently, existing bus transit service must operate in some of the most congested traffic conditions. Typical weekday rush hours within the study area extend from 6:00 to 9:00 AM and from 3:00 to 7:00 PM. With the exception of the Metrolink commuter service, mixed flow transit operations account for all transit service in the study area; therefore, traffic conditions such as long peak periods, congested operations, and vehicular queues also affect bus service. Although ridership on some of the bus routes is high, congestion on arterial streets and freeways affects bus travel times and reliability, thereby resulting in less than optimal service conditions. With high passenger loads, congested roads make implementation of reduced bus service headways (improved frequency of service) difficult to maintain and result in overcrowded buses.

The main transit agencies providing bus service in the study area are Foothill Transit, Omnitrans, and RTA. The three service providers share similar ridership performance trends where all three are projecting a decrease in total boardings. Foothill Transit had a system ridership of 14,970,000 passenger boardings for the Fiscal Year (FY) of 2009 They are projecting a FY 2010 ridership of 14,140,000, a decrease of 5.5%. Omnitrans had an overall system ridership of 15,452,794 in 2009. The projected 2010 ridership is 14,652,000, a decrease of 5.1%. They have a planned 2011 ridership of 14,254,000, an additional decrease of 2.7%. RTA has a FY 09/10 system wide ridership estimate of 7,918,081 and a FY10/11 projection of 7,475,818, a decrease of 5.5%.

Rail service in the area is provided by Metrolink. The average weekday ridership on the Metrolink system in September 2009 was 42,316. The riders for the same time period in September 2010 were 40,544, a decrease of 4%. Due to the economic downturn, all the major transit agencies serving the study area showed a decrease in ridership.

4.1.4 Planned Transit Program Improvements

Section 5.1 presents planned improvements to public transit for the different alternatives. In summary, the No Build Alternative would provide no significant improvement in transit services within the study area. As the population grows, the demand for additional transit service and service reliability will increase.

4.2 STREETS AND HIGHWAYS

4.2.1 Freeways and Arterials

The environment in which traffic was examined included, from west to east, the north-south major and secondary arterials between and including Barranca Avenue in Glendora and Central Avenue in Montclair. In addition, the east-west major and secondary arterials located within 1,000 feet of the existing rail right-of-way were evaluated, as follows:

- **I-210/SR 210 –** This is east-west freeway is known as the Foothill Freeway and connects Los Angeles with its northern suburbs following the foothills of the San Gabriel Mountains. The western freeway segment is I-210, extending from I-5 in Sylmar to SR 57 in Glendora, where it becomes SR 210. SR 210 and continues eastward through the project area. The proposed LRT extension would generally run parallel to this freeway; north of the I-210, and south of the SR 210.
- **SR 57 –** This is known as the Orange Freeway, a major north–south state highway in the greater Los Angeles area. It runs through Pomona and San Dimas and links I-10, SR 71, and I-210/SR 210, ending at I-210/SR 210 intersection in Glendora.
- **I-10 –** This is an east-west freeway to the south of both I-210/SR 210 and the project alignment. The segment between downtown Los Angeles and the Inland Empire is known as the San Bernardino Freeway. It serves study area cities: San Dimas, La Verne, Pomona, Claremont, and Montclair.
- **South Grand Avenue –**According to the Los Angeles County General Plan, this is a major north-south highway. It is a two-way street carrying about 12,000 vehicles per day.
- **South Glendora Avenue –** This is a major north-south highway according to the Los Angeles County General Plan. It is a two-way street carrying about 16,000 vehicles per day.

- **Arrow Highway –** This is a major east-west highway according to the Los Angeles County General Plan. It is a main two-way street carrying about 28,000 vehicles per day.
- **Historic Route 66 Highway (West Alosta Avenue) –** This is a major east-west highway according to the Los Angeles County General Plan. It is a two-way street carrying about 30,000 vehicles per day.
- **Lone Hill Avenue –** This is a major north-south highway according to the Los Angeles County General Plan. It is a two-way street carrying about 24,000 vehicles per day.
- **Foothill Boulevard –** According to the Los Angeles County General Plan, this is a secondary highway west of North Valley Center Avenue, and a major highway east of North Valley Center Avenue. It is a two-way east-west street that carries about 11,000 vehicles per day.
- **Bonita Avenue –** This is a secondary highway according to the Los Angeles County General Plan. It is a two-way east-west street carrying about 13,000 vehicles per day.
- **San Dimas Avenue –** This is a major north-south highway according to the Los Angeles County General Plan. It is a two-way street carrying about 10,000 vehicles per day.
- **San Dimas Canyon Road –** This is a major north-south highway according to the Los Angeles County General Plan. It is a two-way street carrying about 7,700 vehicles per day.
- **White Avenue –** This is a major highway north-south according to the Los Angeles County General Plan. It is a two-way street carrying about 16,000 vehicles per day.
- **North Garey Avenue –** This is a major north-south highway according to the Los Angeles County General Plan. It is a two-way street carrying about 21,000 vehicles per day.
- **North Towne Avenue –** This is a major north-south highway according to the Los Angeles County General Plan. It is a two-way street carrying about 25,000 vehicles per day.
- **Indian Hill Avenue –** This is a secondary highway north of Bonita Avenue and a major highway south of Bonita Avenue according to the Los Angeles County General Plan. It is a two-way, north south street and carries about 19,000 vehicles per day.
- **South Mills Avenue/Claremont Boulevard –** This is a major north-south highway according to the Los Angeles County General Plan. It is a two-way street carrying about 7,600 vehicles per day.
- **Monte Vista Avenue –** This is a major north-south highway according to the Los Angeles County General Plan. It is a two-way street carrying about 19,000 vehicles per day.

4.2.2 Programmed Roadway Improvements

No programmed major or secondary arterial roadway improvements are anticipated within the study area. The 2006 base year and the 2035 horizon year roadway networks coded in the travel demand forecasting model, which was used to develop future ridership, were compared for the number of traffic lanes and were found to be the same.

4.2.3 Daily Traffic Volumes

In May 2010, ADT counts were taken at 35 roadway segments within the study area. The 24-hour manual machine counts at the 35 roadway segments were collected on a representative weekday to determine existing daily traffic operations. Four of the segments are east-west roadways, and the remaining 31 are north-south roadways.

The existing conditions analysis was performed for all 35 roadway segments. The analysis showed that all roadway segments currently operate at LOS C or better. **Table 4-3** shows capacities, volumes, volume-to-capacity (V/C) ratios, and corresponding LOS for each segment analyzed.

Table 4-3: Existing Roadway Segment Average Daily Traffic Analysis (2010)

Roadway Segment	From	To	Capacity[1,2,3,4] (Vehicles/Day)	Volume (Vehicles/Day)	V/C	LOS
Glendora						
South Lone Hill Avenue	West Gladstone Street	Auto Centre Drive	32,000	24,167	0.76	C
South Loraine Avenue	Route 66	East Lemon Avenue	16,000	9,205	0.58	A
South Elwood Avenue	Route 66	East Lemon Avenue	12,000	2,361	0.20	A
South Glenwood Avenue	Route 66	East Lemon Avenue	12,000	2,437	0.20	A
South Pasadena Avenue	Route 66	East Lemon Avenue	12,000	2,307	0.19	A
South Glendora Avenue	Route 66	Foothill Boulevard	32,000	15,969	0.50	A
South Vermont Avenue	Route 66	West Foothill Boulevard	12,000	3,715	0.31	A
Grand Avenue	Route 66	West Leadora Avenue	32,000	12,383	0.39	A
Foothill Boulevard	Barranca Avenue	Glendora Avenue	16,000	10,569	0.66	B
North Barranca Avenue	West Foothill Boulevard	West Leadora Avenue	12,000	7,235	0.60	B
San Dimas						
San Dimas Canyon Road	Arrow Highway	Bonita Avenue	32,000	7,652	0.24	A
Walnut Avenue	East Arrow Highway	East Bonita Avenue	16,000	6,181	0.39	A
San Dimas Avenue	Arrow Highway	Bonita Avenue	32,000	10,122	0.32	A
Monte Vista Avenue	Commercial Street	Bonita Avenue	12,000	448	0.04	A
Cataract Avenue	Arrow Highway	First Street	12,000	2,530	0.21	A
Bonita Avenue	Eucla Avenue	San Dimas Avenue	32,000	13,038	0.41	A
Eucla Avenue	Bonita Avenue	Third Street	12,000	3,128	0.26	A
West Gladstone Street	Lone Hill Avenue	Amelia Avenue	32,000	12,999	0.41	A
La Verne						
White Avenue	Arrow Highway	Third Street	32,000	16,466	0.51	A
E Street	Arrow Highway	Third Street	16,000	6,064	0.38	A
D Street	Arrow Highway	Third Street	12,000	4,995	0.42	A
A Street	Arrow Highway	Third Street	12,000	1,174	0.10	A
Wheeler Avenue	Arrow Highway	Third Street	32,000	9,067	0.28	A

Table 4-3: Roadway Segment Average Daily Traffic Analysis (2010)

Roadway Segment	From	To	Capacity[1,2,3,4] (Vehicles/Day)	Volume (Vehicles/Day)	V/C	LOS
Pomona						
North Towne Avenue	Arrow Highway	Bonita Avenue	32,000	25,298	0.79	C
North Garey Avenue	Arrow Highway	Bonita Avenue	32,000	20,918	0.65	B
Fulton Road	Metrolink Driveway	—	16,000	1,345	0.08	A
Fulton Road	Arrow Highway	Bonita Avenue	16,000	1,635	0.10	A
Claremont						
South Mills Avenue/Claremont Boulevard	Arrow Highway	East First Street	32,000	7,577	0.24	A
Indian Hill Boulevard	Arrow Highway	Bonita Avenue	32,000	18,889	0.59	A
College Avenue	East Arrow Highway	West Bonita Avenue	12,000	5,068	0.42	A
College Avenue	Green Street	—	12,000	5,553	0.46	A
Cambridge Avenue	West Arrow Highway	Bonita Avenue	12,000	4,580	0.38	A
First Street	Indian Hill Boulevard	College Avenue	24,000	7,363	0.31	A
Montclair						
Monte Vista Avenue	Richton Street	Arrow Highway	32,000	18,837	0.59	A
Central Avenue	Richton Street	Arrow Highway	32,000	22,382	0.70	B

Source: Wiltec, 2010.

[1] Capacity of 32,000 assumes 800 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.

[2] Capacity of 24,000 assumes 600 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.

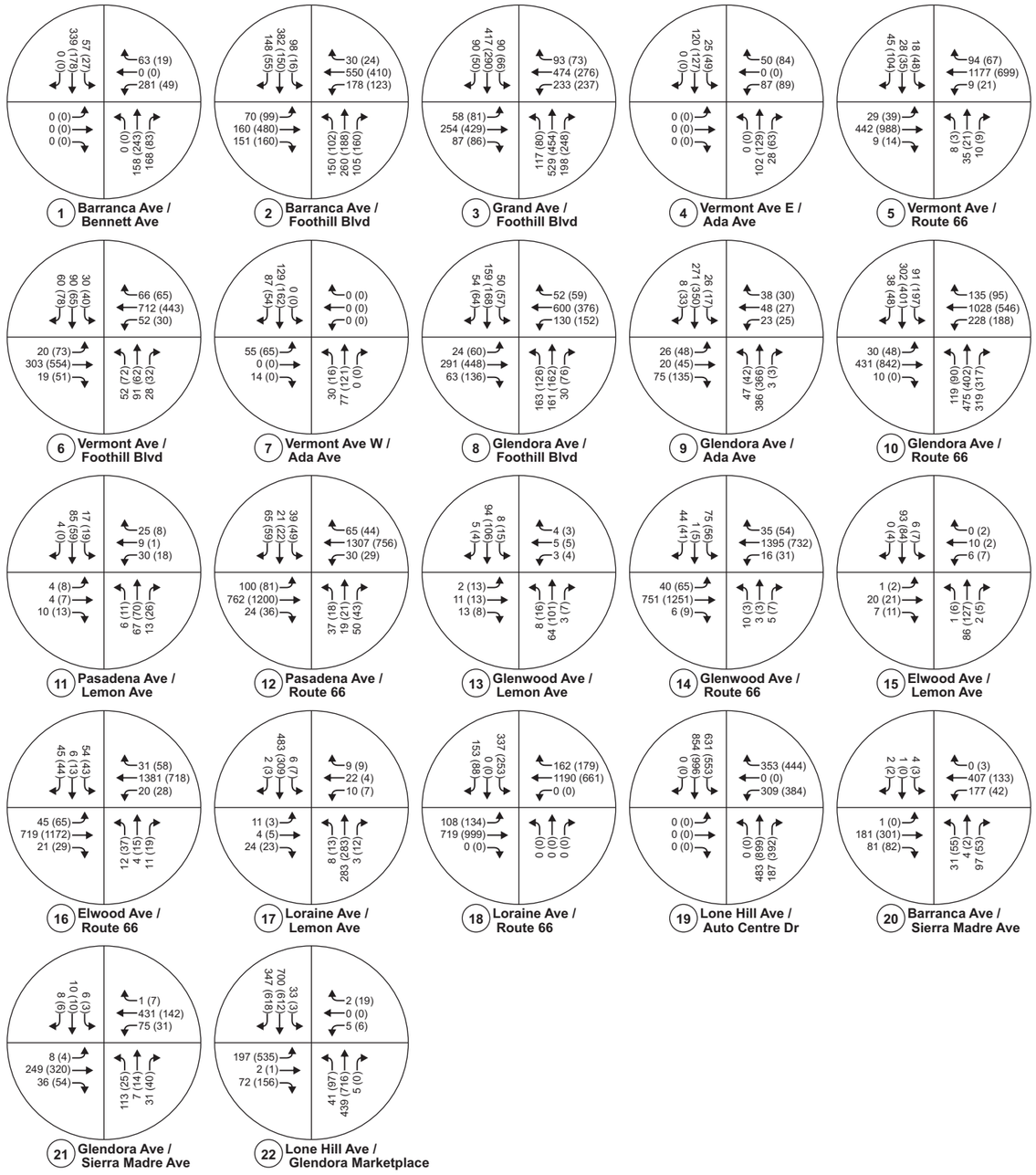
[3] Capacity of 16,000 assumes 800 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.

[4] Capacity of 12,000 assumes 600 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.

4.2.4 Study Intersections and Existing Levels of Service

Turning movement counts were collected at 90 intersections in the study area to assess existing peak hour traffic conditions. The chosen intersections are located both along the proposed LRT alignment and adjacent streets. The AM and PM peak hours were identified as the critical time periods for an assessment of existing conditions. All traffic count data were collected from field turning movement counts. Detailed vehicle turning movement data are included in **Appendix A** and are illustrated in **Figures 4-1 to 4-6**.

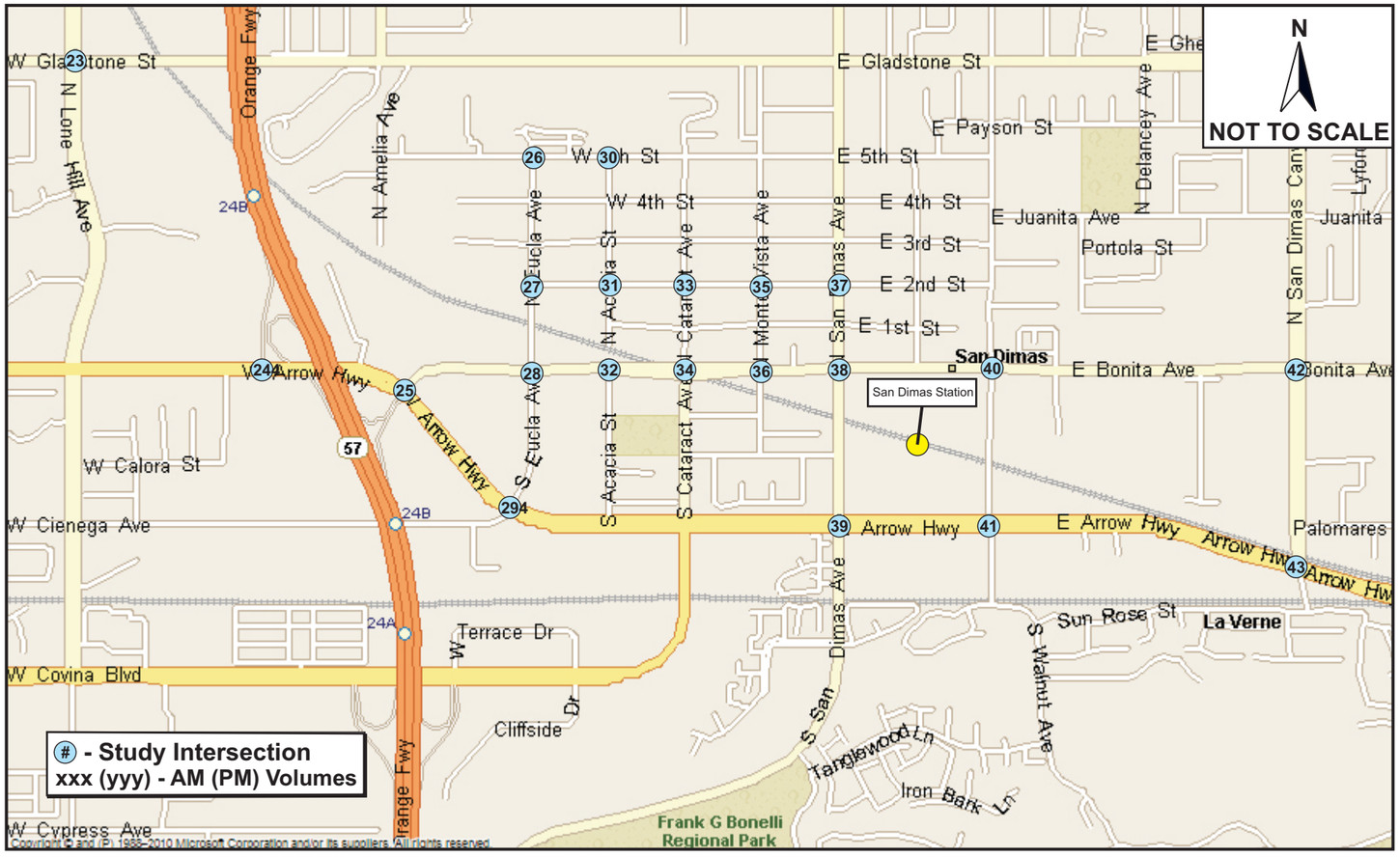
The intersection analysis showed that 6 of the 90 locations operate at LOS E or F. **Table 4-4** lists these 6 intersection locations. The remaining 84 intersections operate at LOS D or better during both AM and PM peak hours. **Table 4-5** presents the results of the existing AM and PM traffic operations and corresponding LOS at each of the study intersections. The detailed 2010 conditions LOS worksheets can be found in **Appendix B**. To report the LOS information required for both traffic operations and air quality evaluation for unsignalized intersections, two sets of LOS and delay numbers are shown. The first line shows the LOS and corresponding delay for the worst-case stop-controlled approach, which is the industry standard to determine traffic operating conditions. The second line shows the overall intersection LOS and corresponding delay, which is the information required to support the air quality analysis. All signalized intersections report only one set of values, which is the overall intersection LOS and corresponding delay.

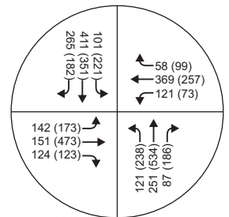


INTUEOR MAXIMIZING VALUE

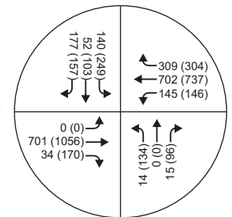
Metro Gold Line Foothill Extension – Azua To Montclair

Figure 4-1: Existing (2010) AM/PM Peak Hour Traffic Volumes: Glendora

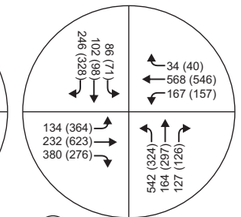




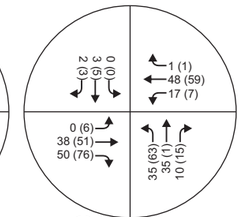
23 Lone Hill Ave / Gladstone St



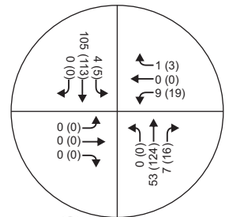
24 SR-57 SB / Arrow Hwy



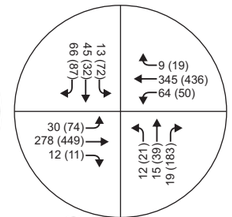
25 SR-57 NB / Arrow Hwy & Bonita Ave



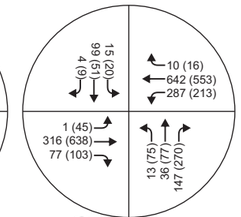
26 Eucla Ave / Fifth St



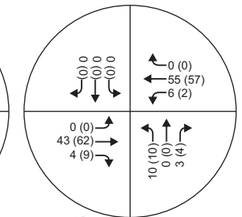
27 Eucla Ave / Second St



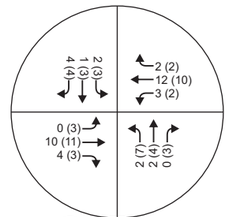
28 Eucla Ave / Bonita Ave



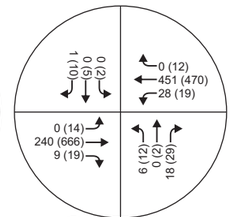
29 Eucla Ave / Arrow Hwy



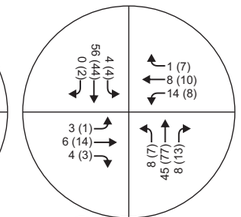
30 Acacia St / Fifth St



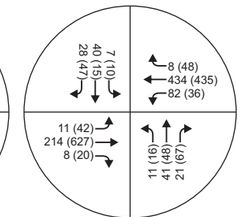
31 Acacia St / Second St



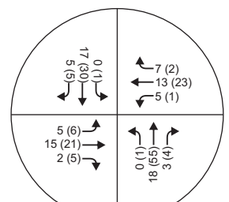
32 Acacia St / Bonita Ave



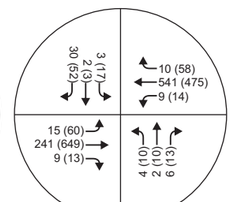
33 Cataract Ave / Second St



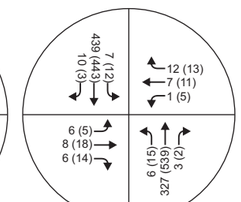
34 Cataract Ave / Bonita Ave



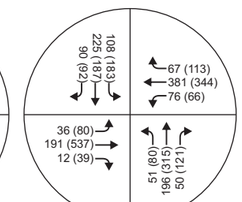
35 Monte Vista Ave / Second St



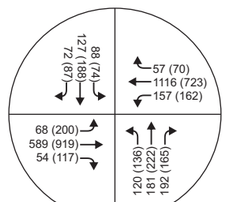
36 Monte Vista Ave / Bonita Ave



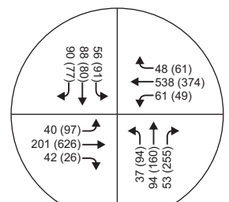
37 San Dimas Ave / Second St



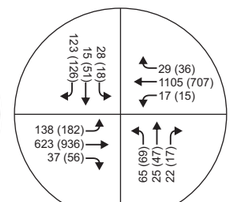
38 San Dimas Ave / Bonita Ave



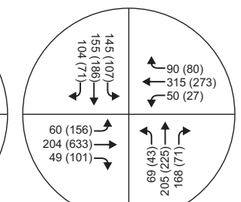
39 San Dimas Ave / Arrow Hwy



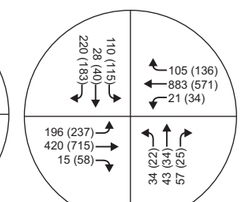
40 Walnut Ave / Bonita Ave



41 Walnut Ave / Arrow Hwy



42 San Dimas Canyon Rd / Bonita Ave



43 San Dimas Canyon Rd / Arrow Hwy

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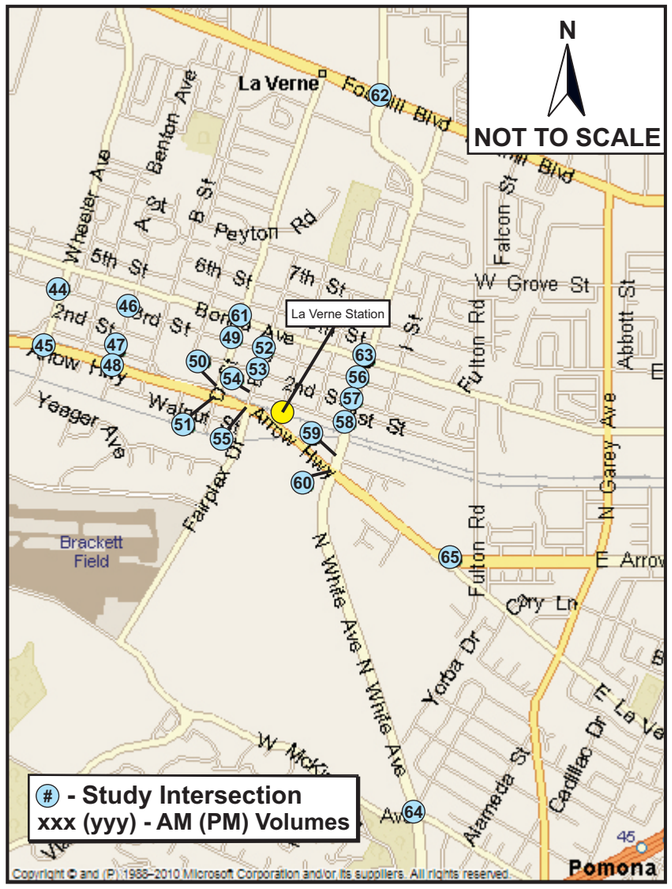
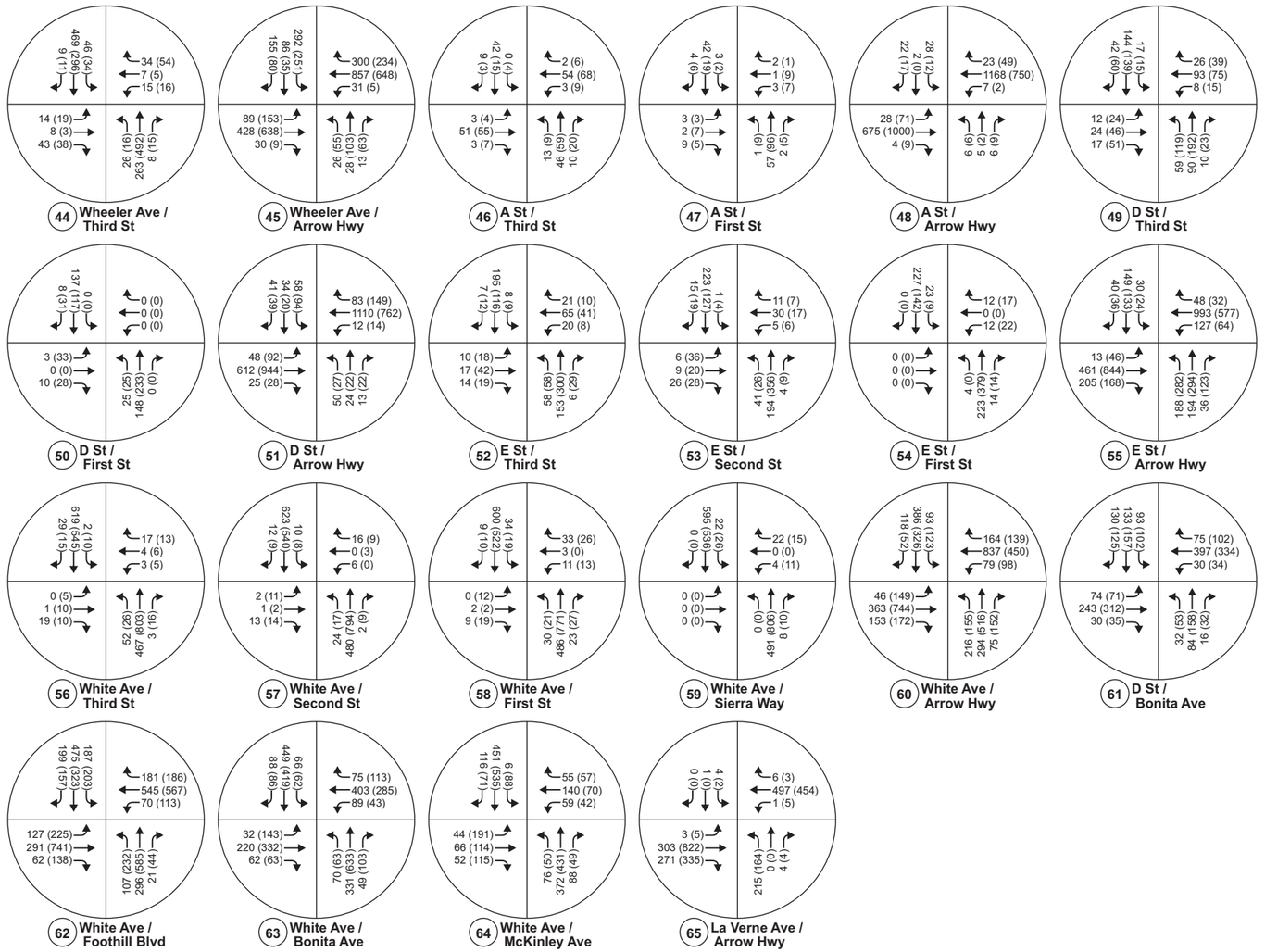
Metro Gold Line Foothill Extension – Azusa To Montclair

Figure 4-2: Existing (2010) AM/PM Peak Hour Traffic Volumes: San Dimas

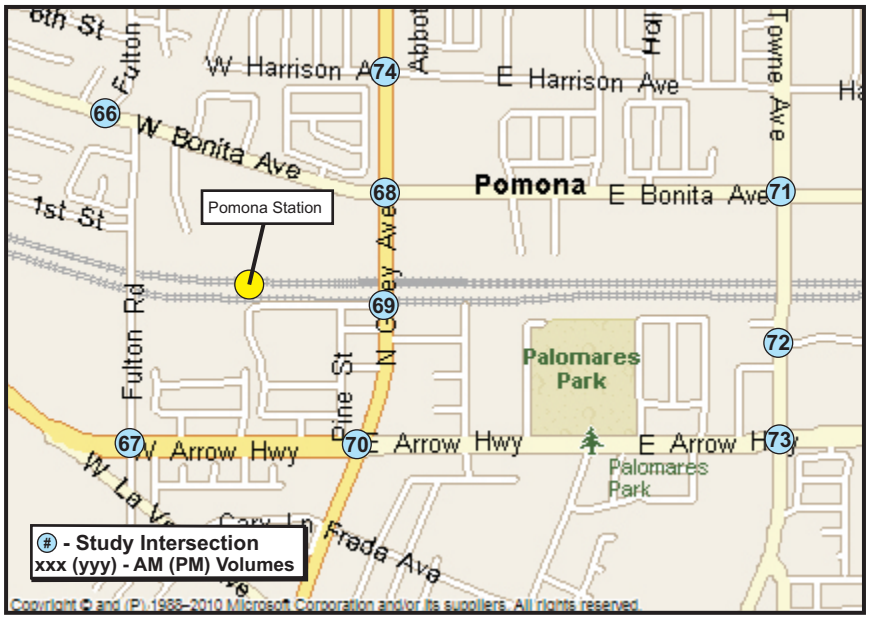


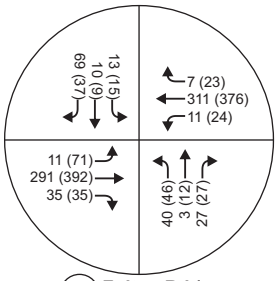


INTUEOR MAXIMIZING VALUE

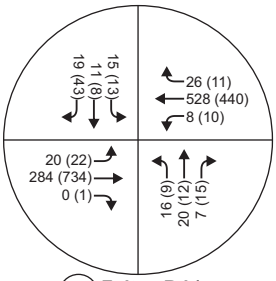
Metro Gold Line Foothill Extension – Azusa To Montclair

Figure 4-3: Existing (2010) AM/PM Peak Hour Traffic Volumes: La Verne

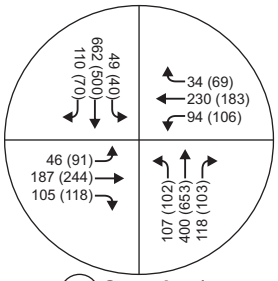




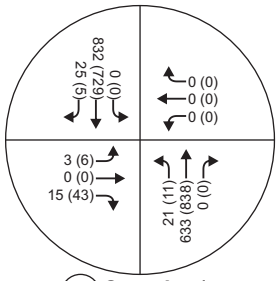
66 Fulton Rd / Bonita Ave



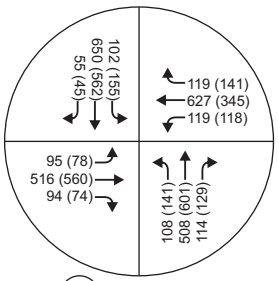
67 Fulton Rd / Arrow Hwy



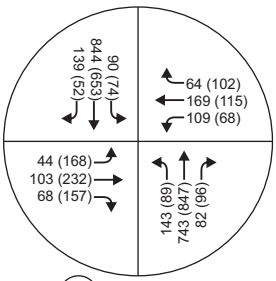
68 Garey Ave / Bonita Ave



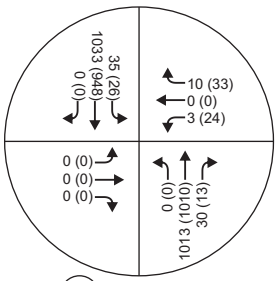
69 Garey Ave / Santa Fe St



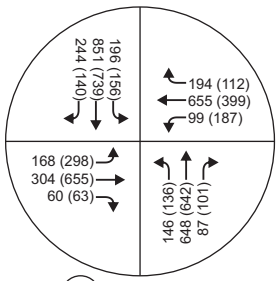
70 Garey Ave / Arrow Hwy



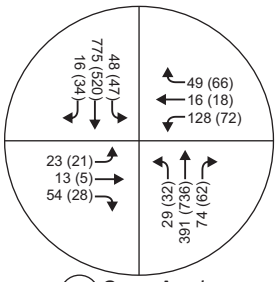
71 Towne Ave / Bonita Ave



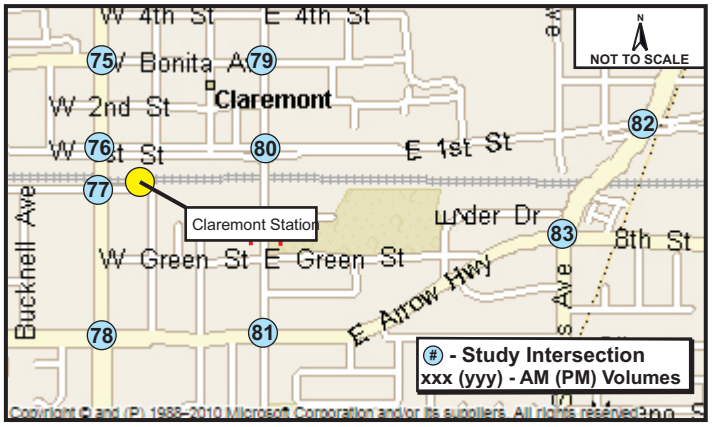
72 Towne Ave / Towne Center Dr

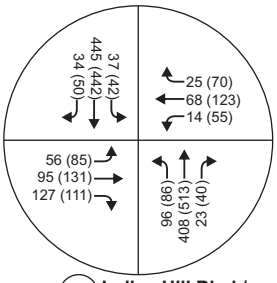


73 Towne Ave / Arrow Hwy

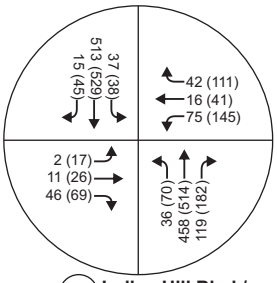


74 Garey Ave / Harrison Ave

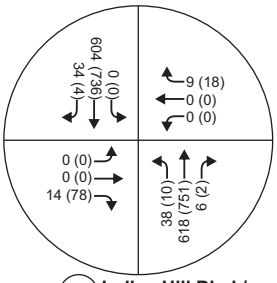




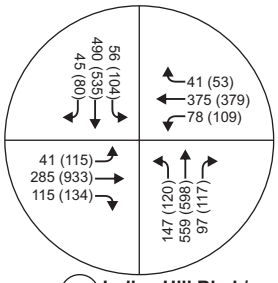
75 Indian Hill Blvd / Bonita Ave



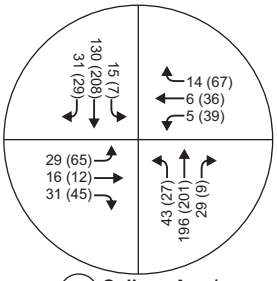
76 Indian Hill Blvd / First St



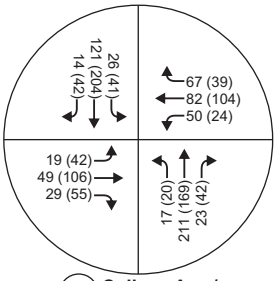
77 Indian Hill Blvd / Santa Fe St



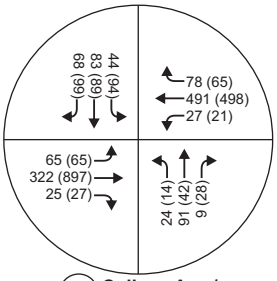
78 Indian Hill Blvd / Arrow Hwy



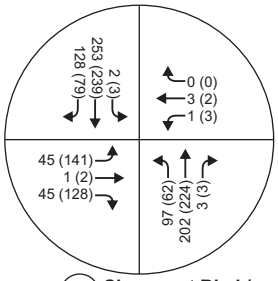
79 College Ave / Bonita Ave



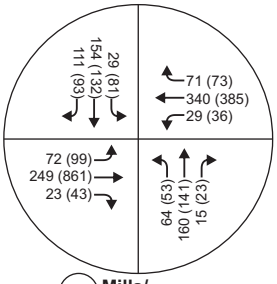
80 College Ave / First St



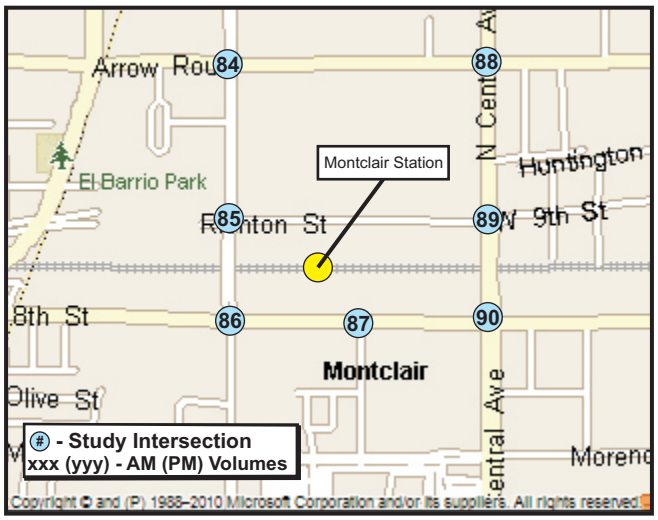
81 College Ave / Arrow Hwy

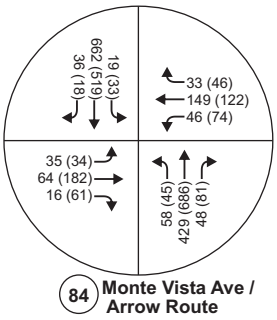


82 Claremont Blvd / First St

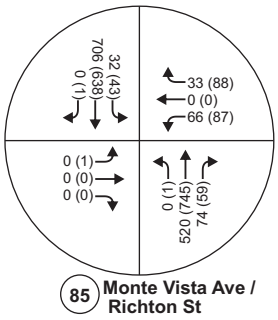


83 Mills/ Claremont / Arrow Hwy

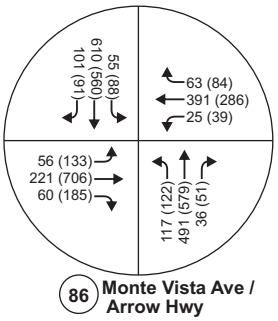




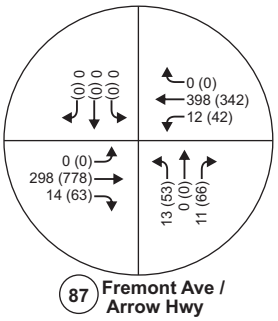
84 Monte Vista Ave / Arrow Route



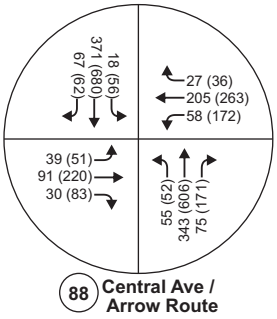
85 Monte Vista Ave / Richton St



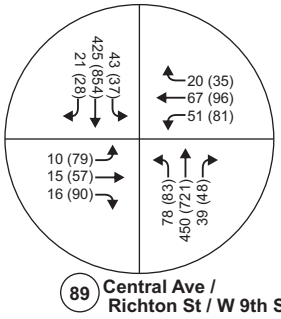
86 Monte Vista Ave / Arrow Hwy



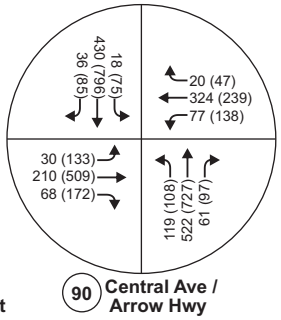
87 Fremont Ave / Arrow Hwy



88 Central Ave / Arrow Route



89 Central Ave / Richton St / W 9th St



90 Central Ave / Arrow Hwy

Table 4-4: Intersections Currently Operating at LOS E or F (2010)

Intersection	Jurisdiction	Control Type
Glenwood Avenue/Route 66	Glendora	2-Way Stop
Monte Vista Avenue/Bonita Avenue	San Dimas	2-Way Stop
A Street/Arrow Highway	La Verne	2-Way Stop
White Avenue/Third Street	La Verne	2-Way Stop
La Verne Avenue/Arrow Highway	La Verne	2-Way Stop
Fulton Road/Bonita Avenue	Pomona	2-Way Stop

Table 4-5: Existing Intersection LOS Analysis (2010)

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
1	Barranca Avenue/Bennett Avenue	Glendora	C	16.5	B	11.6
			A[1]	5.8[1]	A[1]	1.7[1]
2	Barranca Avenue/Foothill Boulevard	Glendora	A	9.7	A	7.5
3	Grand Avenue/Foothill Boulevard	Glendora	C	27.3	C	23.9
4	Vermont Avenue East/Ada Avenue	Glendora	B	11.0	B	12.3
			A[1]	4.2[1]	A[1]	4.7[1]
5	Vermont Avenue/Route 66	Glendora	A	6.6	A	7.8
6	Vermont Avenue/Foothill Boulevard	Glendora	A	6.8	A	6.2
7	Vermont Avenue West/Ada Avenue	Glendora	B	10.6	B	11.3
			A[1]	2.5[1]	A[1]	2.1[1]
8	Glendora Avenue/Foothill Boulevard	Glendora	C	20.1	C	22.3
9	Glendora Avenue/Ada Avenue	Glendora	B	10.6	B	12.1
10	Glendora Avenue/Route 66	Glendora	B	17.9	C	21.2
11	Pasadena Avenue/Lemon Avenue	Glendora	A	7.7	A	7.6
12	Pasadena Avenue/Route 66	Glendora	A	9.4	A	8.7
13	Glenwood Avenue/Lemon Avenue	Glendora	A	9.8	B	10.7
			A[1]	2.3[1]	A[1]	2.5[1]
14	Glenwood Avenue/Route 66	Glendora	F	487.7	F	304.7
			D[1]	25.3[1]	B[1]	14.8[1]
15	Elwood Avenue/Lemon Avenue	Glendora	B	10.4	B	10.5
			A[1]	2.2[1]	A[1]	2.1[1]
16	Elwood Avenue/Route 66	Glendora	B	16.7	B	14.3
17	Loraine Avenue/Lemon Avenue	Glendora	C	16.7	B	12.4
			A[1]	1.6[1]	A[1]	1.1[1]
18	Loraine Avenue/Route 66	Glendora	B	13.9	B	10.5
19	Lone Hill Avenue/Auto Centre Drive	Glendora	B	13.7	B	16.7
20	Barranca Avenue/Sierra Madre Avenue	Glendora	C	15.7	B	13.7
			A[1]	3.6[1]	A[1]	2.8[1]
21	Glendora Avenue/Sierra Madre Avenue	Glendora	C	23.8	B	12.0
22	Lone Hill Avenue/Glendora Marketplace	Glendora	B	15.1	B	19.5

Table 4-5: Existing Intersection LOS Analysis (2010)

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
23	Lone Hill Avenue/Gladstone Street	San Dimas	B	16.9	C	21.7
24	SR-57 (southbound)/Arrow Highway	San Dimas	A	5.3	A	9.5
25	SR-57 (northbound)/Arrow Highway & Bonita Avenue	San Dimas	B	17.6	B	19.9
26	Eucla Avenue/Fifth Street	San Dimas	A	7.2	A	7.2
27	Eucla Avenue/Second Street	San Dimas	A	9.4	B	10.0
			A[1]	0.7[1]	A[1]	0.9[1]
28	Eucla Avenue/Bonita Avenue	San Dimas	A	4.7	A	6.0
29	Eucla Avenue/Arrow Highway	San Dimas	A	7.4	A	9.8
30	Acacia Street/Fifth Street	San Dimas	A	9.1	A	9.1
			A[1]	1.4[1]	A[1]	1.0[1]
31	Acacia Street/Second Street	San Dimas	A	9.0	A	9.1
			A[1]	7.3[1]	A[1]	6.4[1]
32	Acacia Street/Bonita Avenue	San Dimas	B	10.4	C	18.2
			A[1]	0.6[1]	A[1]	1.1[1]
33	Cataract Avenue/Second Street	San Dimas	A	9.7	A	9.8
			A[1]	8.3[1]	A[1]	7.9[1]
34	Cataract Avenue/Bonita Avenue	San Dimas	B	10.3	C	15.0
35	Monte Vista Avenue/Second Street	San Dimas	A	9.2	A	9.7
			A[1]	4.8[1]	A[1]	3.7[1]
36	Monte Vista Avenue/Bonita Avenue	San Dimas	C	15.4	E	39.7
			A[1]	1.0[1]	A[1]	2.9[1]
37	San Dimas Avenue/Second Street	San Dimas	C	16.8	C	22.3
			A[1]	0.9[1]	A[1]	1.5[1]
38	San Dimas Avenue/Bonita Avenue	San Dimas	B	10.2	B	13.0
39	San Dimas Avenue/Arrow Highway	San Dimas	C	23.0	C	29.4
40	Walnut Avenue/Bonita Avenue	San Dimas	A	5.9	B	10.7
41	Walnut Avenue/Arrow Highway	San Dimas	B	10.8	B	10.4
42	San Dimas Canyon Road/Bonita Avenue	San Dimas	A	6.3	A	7.3
43	San Dimas Canyon Road/Arrow Highway	San Dimas	B	11.4	B	10.1
44	Wheeler Avenue/Third Street	La Verne	B	14.4	B	13.8
			A[1]	2.6[1]	A[1]	2.4[1]
45	Wheeler Avenue/Arrow Highway	La Verne	B	13.3	B	11.6
46	A Street/Third Street	La Verne	B	10.1	B	10.3
			A[1]	5.3[1]	A[1]	4.7[1]
47	A Street/First Street	La Verne	A	9.2	A	9.8
			A[1]	1.6[1]	A[1]	2.3[1]
48	A Street/Arrow Highway	La Verne	F	77.2	E	40.0
			A[1]	2.6[1]	A[1]	1.1[1]
49	D Street/Third Street	La Verne	A	9.1	B	11.5

Table 4-5: Existing Intersection LOS Analysis (2010)

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
50	D Street/First Street	La Verne	A	9.5	B	10.9
			A[1]	1.0[1]	A[1]	1.9[1]
51	D Street/Arrow Highway	La Verne	A	4.7	A	4.9
52	E Street/Third Street	La Verne	A	9.2	B	11.0
53	E Street/Second Street	La Verne	B	13.2	B	13.5
			A[1]	2.6[1]	A[1]	2.8[1]
54	E Street/First Street	La Verne	B	10.9	B	11.7
			A[1]	0.9[1]	A[1]	0.9[1]
55	E Street/Arrow Highway	La Verne	B	18.6	C	23.5
56	White Avenue/Third Street	La Verne	C	19.6	E	41.8
			A[1]	1.4[1]	A[1]	1.9[1]
57	White Avenue/Second Street	La Verne	C	18.5	D	32.5
			A[1]	1.1[1]	A[1]	1.2[1]
58	White Avenue/First Street	La Verne	C	20.0	D	29.7
			A[1]	1.6[1]	A[1]	1.8[1]
59	White Avenue/Sierra Way	La Verne	B	10.7	C	15.3
			A[1]	0.4[1]	A[1]	0.5[1]
60	White Avenue/Arrow Highway	La Verne	C	21.5	C	24.7
61	D Street/Bonita Avenue	La Verne	A	7.6	A	8.0
62	White Avenue/Foothill Boulevard	La Verne	C	23.8	C	34.2
63	White Avenue/Bonita Avenue	La Verne	B	12.2	B	13.9
64	White Avenue/McKinley Avenue	La Verne	B	10.5	B	12.0
65	La Verne Avenue/Arrow Highway	La Verne	D	28.6	F	196.9
			A[1]	6.2[1]	C[1]	22.8[1]
66	Fulton Road/Bonita Avenue	Pomona	C	17.2	E	30.8
			A[1]	3.0[1]	A[1]	4.2[1]
67	Fulton Road/Arrow Highway	Pomona	C	17.9	C	24.2
			A[1]	1.8[1]	A[1]	1.6[1]
68	Garey Avenue/Bonita Avenue	Pomona	B	13.2	B	13.3
69	Garey Avenue/Santa Fe Street	Pomona	B	11.8	B	11.5
			A[1]	0.3[1]	A[1]	0.4[1]
70	Garey Avenue/Arrow Highway	Pomona	C	21.5	C	25.8
71	Towne Avenue/Bonita Avenue	Pomona	A	7.3	A	9.5
72	Towne Avenue/Towne Center Drive	Pomona	C	18.4	D	27.9
			A[1]	0.3[1]	A[1]	0.9[1]
73	Towne Avenue/Arrow Highway	Pomona	C	34.9	D	37.0
74	Garey Avenue/Harrison Avenue	Pomona	A	6.7	A	4.7
75	Indian Hill Boulevard/Bonita Avenue	Claremont	A	7.3	A	8.5
76	Indian Hill Boulevard/First Street	Claremont	A	9.3	B	12.4
77	Indian Hill Boulevard/Santa Fe Street	Claremont	B	10.7	B	12.0
			A[1]	0.4[1]	A[1]	0.8[1]

Table 4-5: Existing Intersection LOS Analysis (2010)

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
78	Indian Hill Boulevard/Arrow Highway	Claremont	B	18.8	C	27.4
79	College Avenue/Bonita Avenue	Claremont	A	9.1	B	10.8
80	College Avenue/First Street	Claremont	A	9.6	B	10.7
81	College Avenue/Arrow Highway	Claremont	A	5.2	A	6.5
82	Claremont Boulevard/First Street	Claremont	A	3.4	A	5.9
83	Mills/Claremont/Arrow Highway	Claremont	B	14.6	B	16.3
84	Monte Vista Avenue/Arrow Route	Montclair	B	11.9	B	12.8
85	Monte Vista Avenue/Richton Street	Montclair	A	3.2	A	6.4
86	Monte Vista Avenue/Arrow Highway	Montclair	B	16.8	C	21.3
87	Fremont Avenue/Arrow Highway	Montclair	A	1.8	A	4.0
88	Central Avenue/Arrow Route	Montclair	B	10.9	B	17.4
89	Central Avenue/Richton Street/West 9th Street	Montclair	A	7.6	A	9.1
90	Central Avenue/Arrow Highway	Montclair	B	14.3	C	21.6

[1] Overall intersection LOS and delay at unsignalized intersections is reported to support the air quality analysis
[2] Average vehicle delay in seconds

4.3 PARKING

Parking at the six new stations would be designed to accommodate patrons using the LRT service. The parking demand and the number of parking stalls would be partially guided by the boarding projections from the transportation modeling process for 2035. It is estimated that more than 5,150 total parking spaces would be required. It is anticipated that existing on-street parking spaces near the stations will not be displaced by the construction of the proposed project alignment. Parking information for each new station follows.

Glendora

The Glendora Station would be sited on a parcel between Glendora Avenue on the east and northeast, East Ada Street on the north, and Vermont Avenue on the west. At this station, parking would be in a two-level parking structure directly south of the station and within the Metro right-of-way. Approximately 400 parking spaces would be required by 2035. Vehicular access and egress would be via Glendora Avenue on the east end and Vermont Avenue on the west end. Pedestrian connections between the platform and parking structure would be via sidewalks on Vermont Avenue and Glendale Avenue.

San Dimas

The proposed San Dimas Station would be between San Dimas and Walnut Avenues, north of Arrow Highway. It would have a center platform and a two-level above-grade parking structure south of the right-of-way. Approximately 400 parking spaces would be needed by 2035. Parking would be in a multi-level structure just south of the station in a mid-block site bounded by the Grove Street Station mixed-use development on the north and Arrow Highway on the south. Vehicular access and egress would be via

Walnut Avenue. Travel between floors would be via sloped floor parking bays. Pedestrians would walk to and from the platform and parking structure via an elevated walkway at the east end of the station that then connects to the east end of the station platform within the Metro right-of-way.

La Verne

The La Verne Station would be located east of E Street, just north of Arrow Highway and would require 600 parking spaces by 2035. A rectangular four-level sloped-floor parking garage would be provided in the irregular-shaped property just south and east of the platform on the north side of Arrow Highway; the rest of the parcel would be available for commercial development. Vehicular access and egress would be via Arrow Highway. Due to the proximity of the station driveway to E Street, only right turns would be permitted into and out of the site. Pedestrian access would be relatively convenient and require crossing only the eastbound LRT track, either at-grade at E street or at a gate-controlled pedestrian crossing at the east end of the station platform.

Pomona

The Pomona Station would have a center platform located west of Garey Avenue near the existing Metrolink station. A new parking structure would be located on industrial land north of the right-of-way. Approximately 1,050 spaces would be needed by 2035; existing Metrolink parking is approximately 350 spaces. The new spaces would be provided in a shared Gold Line/Metrolink garage just north of the existing Gold Line station platform. This site is currently part of a larger industrial property with an unoccupied building on it. Vehicular access would be via a driveway from Garey Avenue on the north side of the structure. Pedestrian access to the Gold Line and Metrolink platforms would be via a pedestrian bridge over the BNSF freight track and Gold Line tracks.

Claremont

Claremont has a thriving multi-modal transit center focused on its historic restored Atchison, Topeka & Santa Fe Depot, located north of the tracks to the east of Indian Hill Boulevard. The proposed Claremont Station would be a center-platform configuration located across from the historic station. The combined Gold Line and Metrolink parking demand at Claremont Station would be approximately 1,100 in 2035. Today, approximately 400 parking spaces are in the Metrolink lot on 1st Street, east of College Avenue. To accommodate the future needs, a three-level parking structure is proposed at the parking lot site. Vehicular access and egress would be via a pair of driveways connected to 1st Street; the driveways would not interfere with the bus transfer bays on 1st Street. Travel to and from the garage would be via 1st Street, crossing College Avenue at grade, then continuing along the College Avenue sidewalk to the walkway between the eastbound and westbound LRT tracks to the platform.

Montclair

The Montclair Station would be just north of the existing Metrolink station platforms with convenient pedestrian access to Metrolink trains via the existing pedestrian tunnel. The existing Montclair TransCenter, including a major bus transfer facility and adjacent park-and-ride, would also serve the LRT station. Parking needs at the Montclair Station would be 1,600 spaces by 2035. There are currently more than 1,600 surface parking spaces at the Montclair TransCenter where the LRT station is proposed. These spaces are used by Metrolink passengers and bus riders who use the park-and-ride. While the existing lots would be ample to serve future needs even with the Build Alternative added, the entire area surrounding the station including the parking lots are scheduled for redevelopment as part of the North Montclair Downtown Specific Plan. For the purposes of the environmental analysis, the existing parking site was

studied. A parking lot could be located south of the Build Alternative and Metrolink tracks. However, it would be constructed only if the surface lots were displaced by future development.

4.4 PEDESTRIAN AND BICYCLE FACILITIES

According to the County of Los Angeles Bicycle Master Plan, three of the six proposed station locations would be near within the vicinity of existing bike lanes. Glendora Avenue has a Class III bike route near the location of the proposed Glendora Station. Near the proposed San Dimas Station, Arrow Highway has a Class III bike route, while San Dimas Avenue has a Class III bike route north of Arrow Highway, and a Class II bike lane south of Arrow Highway. College Avenue near the proposed Claremont station has a Class II bike lane.

4.5 AT-GRADE RAILROAD CROSSINGS

There are 30 locations in the corridor where the existing railroad crosses highways (not including the existing freeway under passes at I-210 and SR 57), two of which, historic Highway 66 in Glendora and Monte Vista Avenue in Montclair, are grade-separated. While the proposed LRT alignment would maintain these existing grade separations by building separate bridges, the crossing at Monte Vista Avenue was studied as an at-grade crossing for purposes of analysis in the EIS/EIR.[2] Thus, 29 crossings were evaluated using the Metropolitan Transportation Authority's (Metro) *Policy for Grade Crossing for Light Rail Transit* (December 4, 2003). This evaluation shows how highway traffic would be affected by proposed train headway operations. It also would be used to determine whether an at-grade crossing is feasible or a grade separation should be studied in more detail. **Table 4-6** provides the list of analyzed crossings. The results of the analysis are provided in Section 5.5.

[2] To allow the railroad to provide continued service to customers on the northerly side of the corridor, the LRT must cross the railroad at two locations. Lone Hill Avenue in Glendora and Towne Avenue in Pomona were chosen as the two locations where an LRT grade separation of an existing highway could be accomplished, even though the Metro policy described above does not mandate grade separations at these two locations.

Table 4-6: List of Analyzed Crossing Locations

City	Crossing Intersections	
Glendora	• Barranca Avenue • Grand Avenue/Foothill Boulevard • Vermont Avenue/Ada Avenue • Glendora Avenue • Pasadena Avenue	• Glenwood Avenue • Elwood Avenue • Loraine Avenue • Lone Hill Avenue/Auto Center Drive
San Dimas	• Gladstone Street • Eucla Street • Cataract Avenue/Bonita Avenue • Monte Vista Avenue	• San Dimas Avenue • Walnut Avenue • San Dimas Canyon Road
La Verne	• Wheeler Avenue • A Street • D Street	• E Street • White Avenue
Pomona	• Fulton Road • Garey Avenue	• Towne Avenue
Claremont	• Cambridge Avenue • Indian Hill Boulevard	• College Avenue • Claremont Boulevard/South Mill Road
Montclair	• Monte Vista Avenue	

Chapter 5 – Impacts

This chapter of the report presents the operational and construction effects/impacts of the proposed project for each one of the scenarios under consideration. The forecasts used to perform the operational analysis account for background growth in traffic due to cumulative projects, consisting of additional regional and sub-regional land use development, and population and employment growth.

5.1 PUBLIC TRANSIT

5.1.1 No Build Alternative

As the population grows, the demand for adequate and reliable transit service also will increase. Public transit service performance will likely decrease because of the projected increase in traffic congestion. This is likely to make travel via transit a less attractive option for San Gabriel Valley patrons. For those patrons who have no other travel options, travel times will increase and transit usage will be less convenient.

The No Build Alternative would provide no significant improvement in transit services in the study area. Short term planned changes to local fixed route bus services are presented below.

- Foothill Transit does not have any current specific plans to implement major changes to the transit services provided.

- Omnitrans has developed a Financially Constrained Service Plan to be implemented over the Fiscal Years of 2010 through 2014. This plan takes into account the limited available funding and the farebox recovery target of 25%, which is a factor that restricts the addition of service. The first stage of the plan is to be implemented in September 2010, affecting the service for Fiscal Year 2011. The proposed measures are:

    - Route 65: Reduce weekday evening service from 30 minutes to 60 minute frequency; restructure Los Seranos loop.
    - Route 66: Reduce mid-weekday service from 15 minute to 30 minute frequency.
    - Route 67: Eliminate weekend service or contract using smaller vehicles.
    - Route 68: Eliminate weekend service or contract using smaller vehicles.

With the recent economic downturn, transit operators in the area have shown a systemwide ridership decrease. Other than the short term planned changes identified above, future bus routes and frequency will be determined by their respective transit operators based on the demand and operating costs at that time. No other significant transit additions are projected in this scenario.

5.1.2 TSM Alternative

The TSM Alternative would emphasize transportation system upgrades, such as intersection improvements, signal improvements and synchronization, minor road widening, traffic engineering actions to manage flow, bus route restructuring, shortened bus headways, expanded use of articulated

buses, reserved bus lanes, expanded park-and-ride facilities, express and limited-stop service, and timed-transfer operations.

In addition, this alternative proposes a rapid bus route instead of a light rail as a link between the Azusa-Citrus Station to the Montclair Transcenter Station. Buses will be powered by diesel, hybrid/electric, CNG, or fuel cell, and the designed capacity would be 60-65 passengers per vehicle. Operational strategies include transit signal priority (TSP) and signal synchronization. As a result, this alternative would beneficial and help improve the east-west connection between the cities within the study area without any negative impacts.

5.1.3 Build Alternative

The Build Alternative is a 12.6-mile extension from Azusa to Montclair. It operates on two light rail tracks next to a freight track along the existing Metro-owned right-of-way, which is also currently used by Metrolink.

Regional Transit Access and Connectivity

The Build Alternative would increase transit service. It would introduce a premium service that would serve the region and provide improved service reliability as well decrease travel times for transit patrons. Forecast data indicate that transit ridership would increase with the introduction of the improved service.

The Build Alternative would provide passengers with greater access to regional transit opportunities and would provide improved regional transit connectivity. For passengers who board the Gold Line at the six new proposed stations the Gold Line Light Rail system would provide continuous service from Montclair to Long Beach Transfers could be made at Union Station to a variety of different transit alternatives.. Transfers could be made to the Metro Red Line at Union Station with its subway service to Wilshire Center and North Hollywood. The Exposition Line and the Gold Line Eastside Extension to the Beverly/Atlantic Station could also be accessed via the Downtown Regional Connector, which would be constructed and operational, and the Green Line to Norwalk and Redondo Beach would be accessible via the Long Beach Blue Line. Dozens of local and express bus lines converge at Union Station, and several transit providers service Union Station, including Santa Monica's Big Blue Bus, LADOT, Foothill Transit, Torrance Transit, Santa Clarita Transit, and the Antelope Valley Transportation Authority. Metrolink commuter rail service is also available for regional travel to Ventura, San Bernardino, Riverside, Orange, and San Diego counties as well as to northern Los Angeles County. Amtrak rail service can also be accessed at Union Station for long-distance travel to other cities in California and the nation.

To enhance transit connectivity with the Build Alternative and provide access to the stations, the frequencies of bus service routes in the study area would be improved. Per the Foothill Extension Bus Interface Plan, **Table 5-1** presents the proposed changes to the hourly number of buses to enhance bus service in the Build Alternative. Consequently, the Build Alternative would benefit bus transit impacts on regional access and connectivity.

Table 5-1: Build Alternative – Proposed Changes to Bus Service (Buses Per Hour)

Bus Line	Glendora Station						San Dimas Station						La Verne Station						Pomona Station						Claremont Station						Montclair Station					
	AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak		
	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover
Foothill Transit																																				
188[1]	3	3		3	3																				3	3		3	3		3		1	3		1
197																									2	2		2	2		2		1	2		1
492							1		1	1		1	4			4									2	2		2	2		2		1	2		1
291																			3	3		3	3													
292																																				
480																									2	2		2	2		2		1	2		1
851	1	1		1	1																															
690																									2	2		2	2		2		1	2		1
699																															4		1		4	1
284		1	1		1	1																														
Omnitrans																																				
65																															1		1	1		1
66																															4		1	4		1
67																															1		1	1		1
68																															2	2		2	2	
80																															1		1	1		1
RTA																																				
204																															1		1	1		1

Table 5-1: Build Alternative – Proposed Changes to Bus Service (Buses Per Hour)

Bus Line	Glendora Station						San Dimas Station						La Verne Station						Pomona Station						Claremont Station						Montclair Station					
	AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak		
	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover	Northbound/Eastbound	Southbound/Westbound	Layover
Total	4	5	1	4	5		1		1	1		1		4			4		3	3		3	3			3			3		25	2	11	21	6	11

[1] New proposed bus route

Source: Foothill Extension Bus Interface Plan, Parsons Brinckerhoff, 2011

Bus Route Interface and Service Modifications

To maintain connectivity with other transit operators and bus services in the study area, it is important that the proposed stations are well-served by existing and proposed bus routes. The proposed transit operating plan for the Build Alternative provides a connection to existing bus lines at each station and proposes that certain bus lines be considered for rerouting in order to provide improved access to the light rail system. Rerouting considerations would follow the typical bus route changes process for Foothill Transit and Omnitrans, including a public review period for the proposed changes, a comment process, and input from members of the Bus Riders Union.

According to FTA regulations and guidelines for entities that receive federal transit funding, a public hearing must be offered for a change in fare structure or for service changes that affect more than 25 percent of the revenue or route-miles for a given transit line. CEQA requires that impacts be measured against criteria for significance and that all significant impacts be addressed or mitigated. The proposed bus route modification constitutes a less than significant impact and would require no mitigation. **Table 5-2** shows the proposed bus interface and service modification.

Table 5-2: Build Alternative – Proposed Bus Interface and Service Modification	
City	**Improvements**
Glendora	Foothill Transit Route 187 would be divided in three. The segment east of Azusa Citrus would be designated as Route 188, and would be re-routed from Alosta Avenue between Vermont Avenue and Glendora Avenue. It is recommended that it run on Vermont Avenue, Ada Street and Glendora Avenue.
	Move terminus and layover point for Foothill Transit Route 284 to Glendora Avenue and Ada Street.
	Consider Obtaining a pedestrian way easement through the redevelopment parcel to the north and that the existing bus stop at Ada Avenue be relocated near the pedestrainway. Additionally, a turnout for the southbound bus stop could be provided along the south side of Glendora Avenue.
	The narrow parcel south of the tracks from Vermont Avenue to Glendora Avenue is proposed to be used for either a parking lot with a capacity of about 200 spaces or a 2-3 story parking structure with approximately 350 to 400 spaces.
San Dimas	New layover location for Foothill Transit Route 494 and 499 in the vicinity of San Dimas station. Bus stops at the park-and-ride lot for routes 494 and 499 would be moved or added for closer proximity to the LRT station.
La Verne	Insert loop around the station between White Avenue and Arrow Highway and create a new stop close to the station. In the westbound direction, buses should continue ahead on Arrow Highway, turn right on E or F street, right on 1st Street and then enter White Avenue. Loop in reverse order for the eastbound direction. A bus turnout should be evaluated on Arrow Highway at the station to accommodate a bus stop for Foothill Transit Route 197.
	Additional bus service could be provided by a possible city shuttle bus on E street between the Fairplex and the city's Old Towne center to the north including a stop by the station entrance.
Pomona	Include a bus stop in the vicinity of the Pomona Station with possible turnout for Foothill Transit Route 291 on Garey Avenue north of the rail tracks. Because it is a joint Gold Line and Metrolink Station complex, an off-street transit center is also something that should be considered for Pomona Station.
	It is proposed that route 492 be diverted to serve the Pomona station.
	Parcels adjacent to the station could be developed to provide park-and-ride and/or related improvements.
Claremont	Divide Foothill Transit Route 187 into three segments. The segment east of Azusa-Citrus would be designated as Route 188.
	A park-and-ride garage for LRT and Metrolink riders is proposed over the existing Metrolink parking lot east of College Avenue next to the bus transfer/layover facility.
Montclair	Foothill Routes 494 and 690 are candidates to be discontinued, as they run parallel to the Gold Line Extension when Phase 2B – Azusa to Montclair is completed.
	Introduction of the LRT station together with the specific plan for future development will require moving the existing bus transit center away from its current location eastward but still on the north side of the rail tracks.

Bus Stop Impacts

Under the Build Alternative, bus stops would remain in their current general locations, although some may be relocated to better interface with the new LRT stations. Bus stops would be located close to the street corner where there is access to the station entrance. Some stations may provide bus loading and unloading areas near the proposed parking facilities.

Metrolink Operation Impacts

The Build Alternative would overlap with a short segment of the Metrolink San Bernardino Line in Pomona, Claremont, and Montclair. The Build Alternative would run along the same right-of-way as the Metrolink, but LRT trains would operate on separate tracks and use different platforms than the Metrolink commuter trains. The freight track would merge with the Metrolink track, resulting in two LRT tracks and two Metrolink/freight tracks.

LRT Patronage Forecasts

Table 5-3 shows the projected daily ridership at each LRT station based on the results of the transportation travel demand model for the Build Alternative. The highest number of passengers boarding the system would be at the Montclair Station, with the next highest being at the Pomona Station. The model also shows that the stations with the highest patronage would be the ones with the greatest number of connecting transit services. The highest concentration of boardings would occur during the peak periods as people use the system to and from their places of employment. Total daily ridership for the Build Alternative is projected to be 17,766 passengers by the year 2035.

Table 5-3: Build Alternative –Daily LRT Ridership

Station	Total Daily
Glendora	1,860
San Dimas	1,778
La Verne	1,836
Pomona	3,014
Claremont	2,840
Montclair	6,440
Total	**17,766**

Source: Parsons Brinckerhoff, 2011

5.1.4 Construction Phase

During construction of the project, it may be necessary for traffic lanes to be temporarily closed. Generally, lane closures would take place at night in order to minimize traffic disruptions. Construction activities that entail the relocation of utilities and the construction of trackways and stations would require the temporary closure of lanes at roadways with at-grade crossings. Three types of grade crossing configurations were identified; mid-block locations, locations adjacent to an intersection and locations where the tracks diagonally cross the intersection. With temporary lane closures occurring during the night, it is anticipated that construction impacts will be minimal at the midblock and adjacent intersection locations. Since these lane closures are expected to take place during the night hours and outside the AM and PM peak commuting periods, there will be no impacts to both transit and traffic. Intersection

operating conditions would remain at acceptable service levels because of the low traffic volumes that travel during the night. In addition, during the lane closures detour routes would be identified and clearly signed. However, at the two locations where the tracks diagonally cross the intersection, full closure of the intersection during the night hours is expected. At these select locations, impacts during construction would be considered adverse/significant and would require the development of mitigation measures.

It is anticipated that temporary lane closures would take place during the night hours when traffic volumes are substantially lower than the AM and PM peak periods. Some bus routes may require rerouting and stops may be temporarily relocated. In addition, detour routes may be implemented and clearly signed to temporarily divert traffic flow away from the closure area. Within the proposed alignment, the tracks diagonally cross the intersection at a total of two locations, one in Glendora and one in San Dimas. The Glendora intersection is at Grand Avenue/Foothill Boulevard. The San Dimas intersection is at Cataract Avenue/ Bonita Avenue. During construction, these two intersections would be closed at night and transit and traffic would be re-routed to bypass the closure. Since traffic volumes are low during the night hours, it is anticipated that this adverse/significant impact can be mitigated by diverting traffic and clearly signing the detour route. Due to the diversion of traffic, bus stops would also be temporarily relocated onto the proposed detour route.

Although these construction impacts may be temporary, they would be significant during the construction phase and would require temporary mitigation measures for the duration of the construction period.

5.2 STREETS AND HIGHWAYS

5.2.1 No Build Alternative

Intersection Traffic Conditions

For traffic operations, year 2035 traffic forecasts were developed so that potential changes with the proposed LRT system can be evaluated and compared to the No Build Alternative. The following paragraphs present anticipated changes to intersection operations, the development of growth factors and the resulting traffic operations for the No Build Alternative.

The Southern California Association of Governments' (SCAG) Regional Transportation Plan (RTP) model estimates future travel demand in Los Angeles County. Traffic forecasts obtained from the 2003 and 2035 RTP models were reviewed in the vicinity of the proposed grade crossings during the PM peak period. A traffic screenline was developed, consistent with the alignment of the project, and was used to assess the roadway segment traffic volumes arriving and departing the proposed grade crossings during the four-hour PM peak period (traffic congestion in the PM peak period is typically worse than the AM peak period). Factors were subsequently developed that represent the increases in traffic volumes as a result of development in and around the project corridor. Due to varying development patterns/projections unique to each corridor city, growth factors were developed for each local jurisdiction.

Each at-grade crossing is categorized by two types of configurations, either the typical mid-block crossings where trains block two approaches or a diagonal crossing where a train will pass through an intersection diagonally, affecting all four approaches. Each grade crossing location along the project alignment is analyzed by direction (north/south or east/west). Estimation of the traffic growth in the city of Montclair and the city of Upland involved review of traffic volumes at and around the key

intersections in the vicinity of the project alignment. Each intersection was analyzed through a combination of approach volumes for the purpose of this analysis.

Traffic may be more congested in one direction than the other depending on the time of day. It may also fluctuate due to the seasonal changes, and may redistribute among closely-spaced crossings depending on the area and the local traffic conditions. The approach taken combines the traffic volumes along a screenlien at and in close proximity to multiple crossings in each jurisdiction, and the difference in total traffic volumes between 2003 and 2035 is then calculated. This results in an overall growth factor for each jurisdiction.

A comparison of these traffic forecasts indicates that the traffic growth in the vicinity of the project corridor is estimated to range from 0.6% to 0.9% annually. The linear interpolation method assumed that that total growth was divided by the 32-year timeframe (from year 2003 to year 2035) to calculate average yearly growth factors. This amounts to a total growth in traffic between 2010 and 2035 of between 14.3% and 21.9%.

Another alternative method would be to interpolate the corridor traffic growth by a compound annual growth rate for each corridor city. Each compound annual growth rate was calculated by taking the Nth root of the total percentage growth rate, where N is the number of years in the period being considered (i.e., 32 years). The estimated compound growth rates range from 0.5% to 0.8% annually. Total traffic growth percentages between year 2010 and 2035 were estimated to range between approximately 14.0% and 21.3%.

Both the linear method and the compound method yield similar amount of traffic growth from year 2010 and year 2035. There is no available data indicating the growth profile in the corridor cities and the traffic growth could be a combination of varying curved rates and flat rates. It was decided that the linear average rate method, as summarized in **Table 5-4**, provides a reasonable average of the growth patterns in the corridor cities; and therefore should be used in the grade crossing and traffic analysis for the project.

Table 5-4: No Build Alternative – Growth Factors (2035)

City	Annual Growth	Accumulated Growth (2010 to 2035)
Glendora	0.7%	16.6%
San Dimas	0.9%	21.9%
La Verne	0.6%	14.3%
Pomona	0.7%	17.5%
Claremont	0.7%	17.0%
Montclair	0.7%	18.0%
Upland	0.9%	21.7%
Sources: Fehr & Peers, 2010		

The growth factors were applied to each of the 90 study intersections according to their jurisdiction. **Figures 5-1 to 5-5** show the No Build peak hour traffic volumes during the AM/PM peak hours.

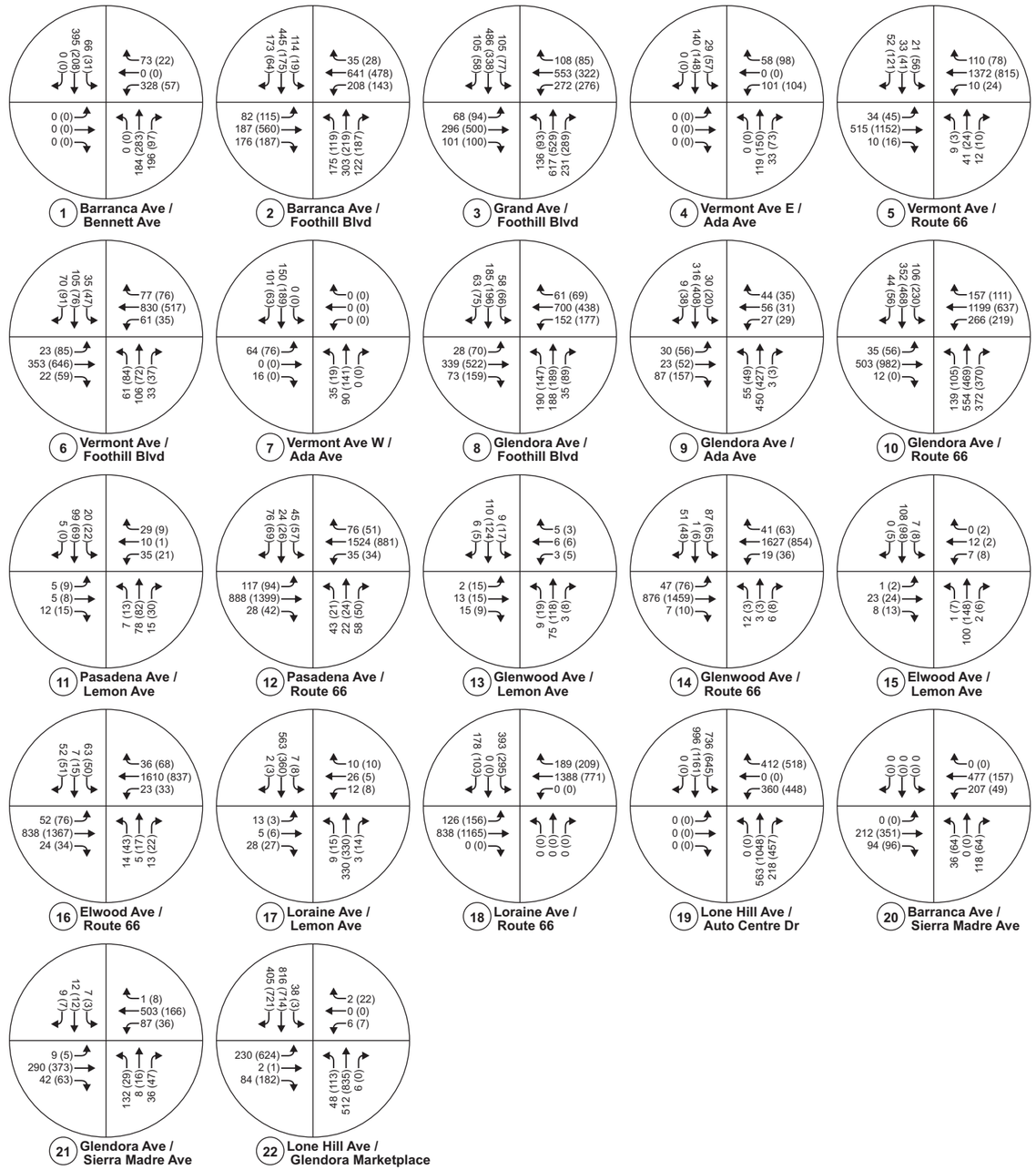


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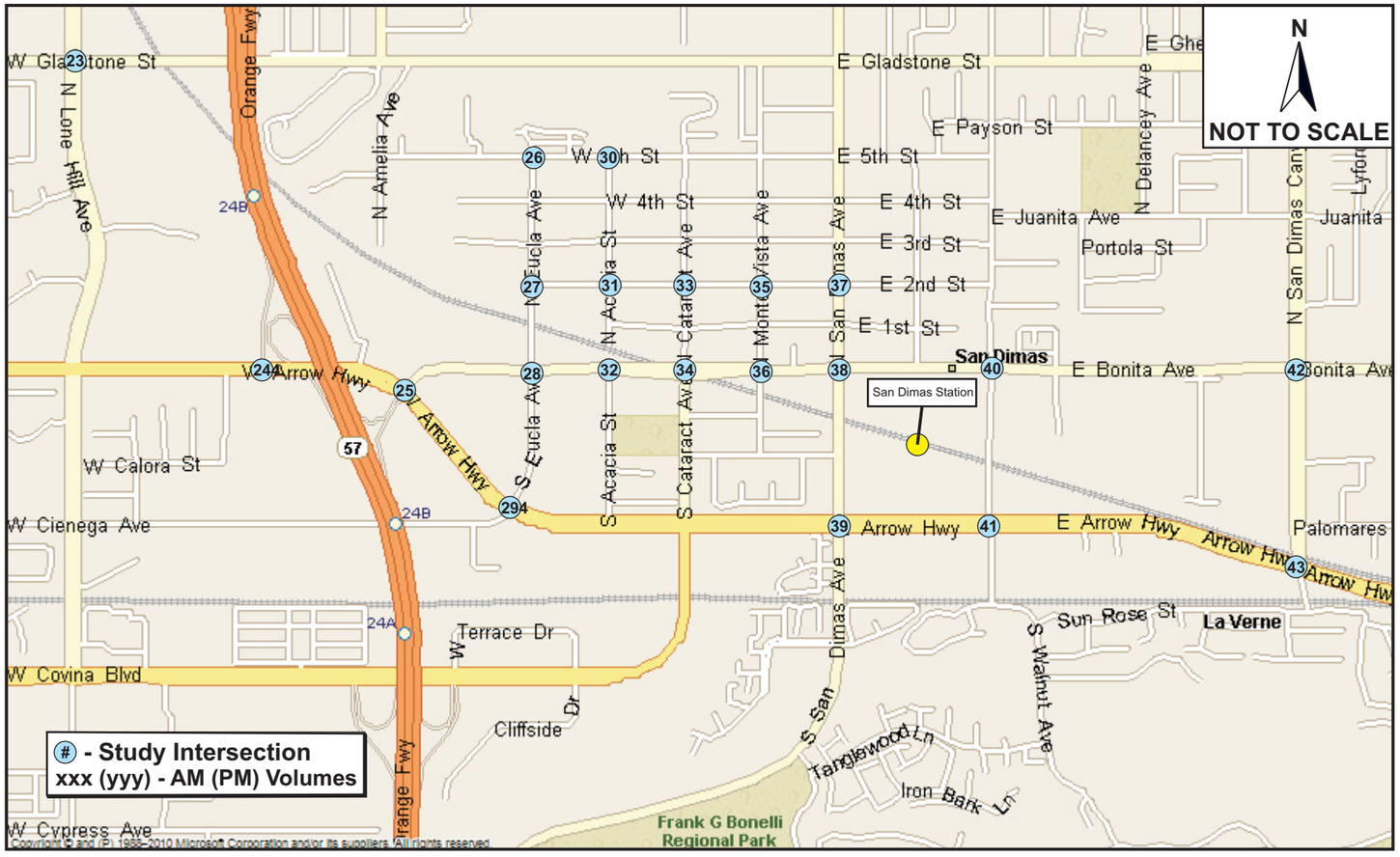
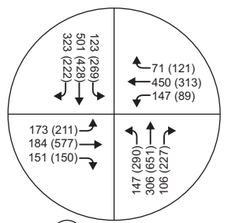
Figure 5-1: No Build (2035) AM/PM Peak Hour Traffic Volumes: Glendora





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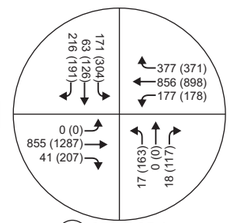

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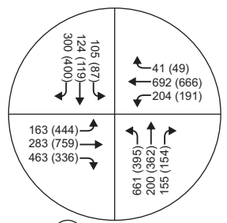
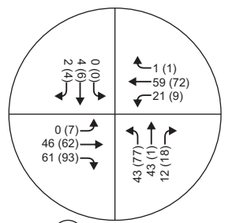


25 SR-57 NB / Arrow Hwy & Bonita Ave



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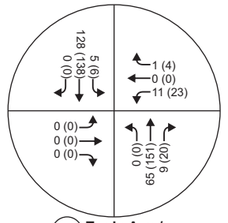

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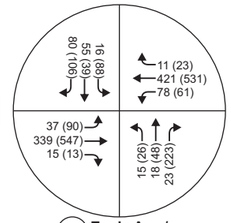

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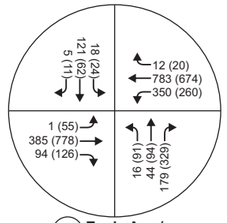

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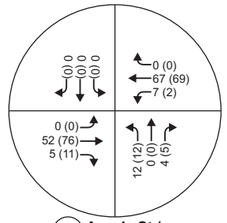

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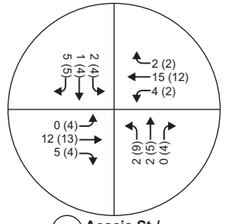

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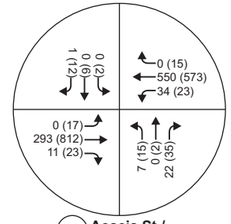

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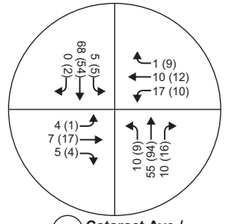

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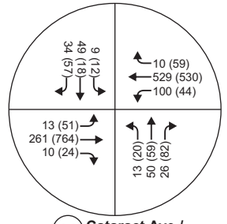

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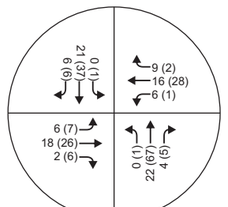

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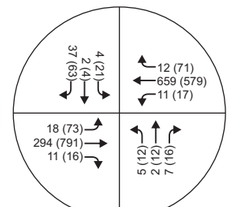

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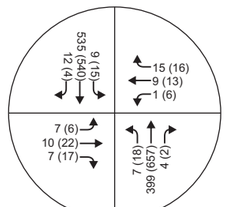

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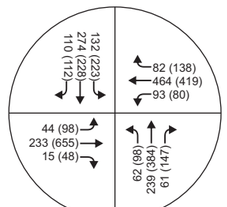

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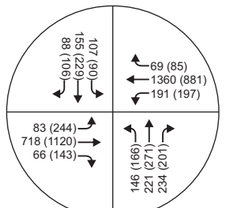

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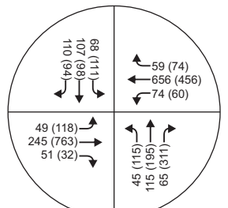

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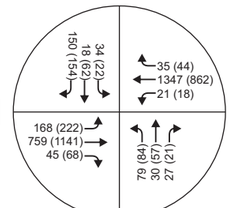

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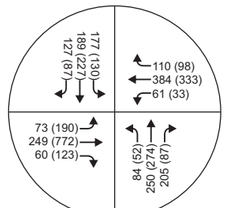
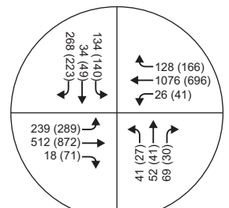


42 San Dimas Canyon Rd / Bonita Ave



43 San Dimas Canyon Rd / Arrow Hwy

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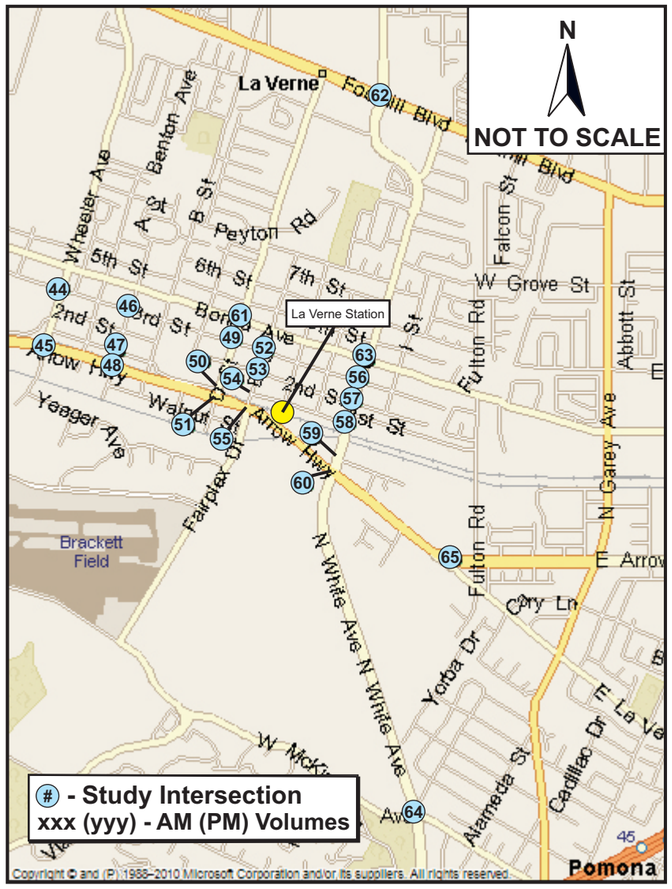
Figure 5-2: No Build (2035) AM/PM Peak Hour Traffic Volumes: San Dimas


N
NOT TO SCALE
La Verne
Foothill Blvd
Wheeler Ave
Benton Ave
A St
B St
Peyton Rd
5th St
6th St
7th St
La Verne Station
W Grove St
Falcon St
Fulton Rd
Abbott St
2nd St
3rd St
Bonita Ave
D St
E St
Arrow Hwy
Walnut St
Yeager Ave
Fairplex Dr
Brackett Field
N White Ave
Yorba Dr
Cary Ln
E Arrow
N Garey Ave
Alameda St
Cadillac Dr
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Pomona
- Study Intersection
xxx (yyy) - AM (PM) Volumes
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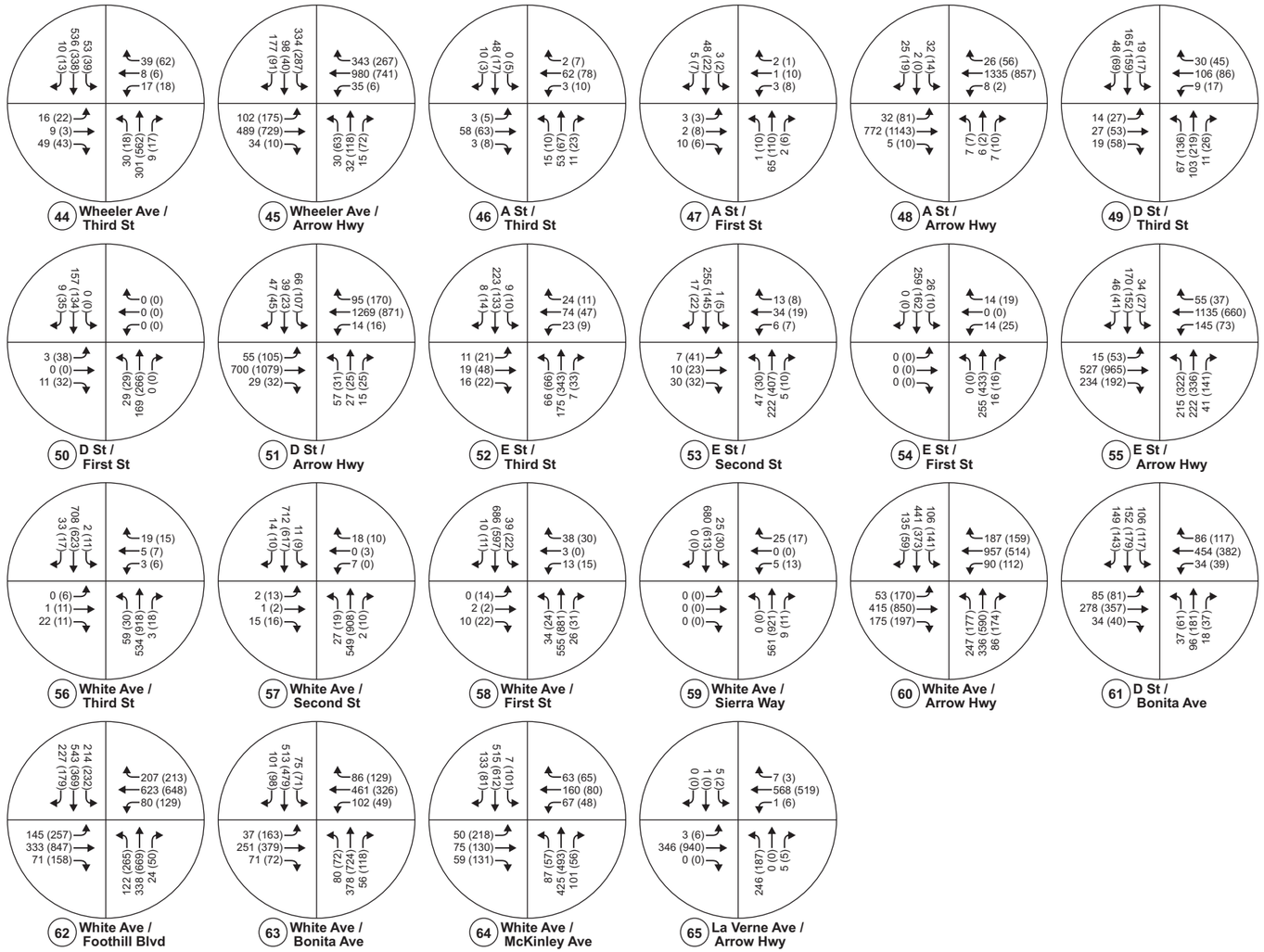
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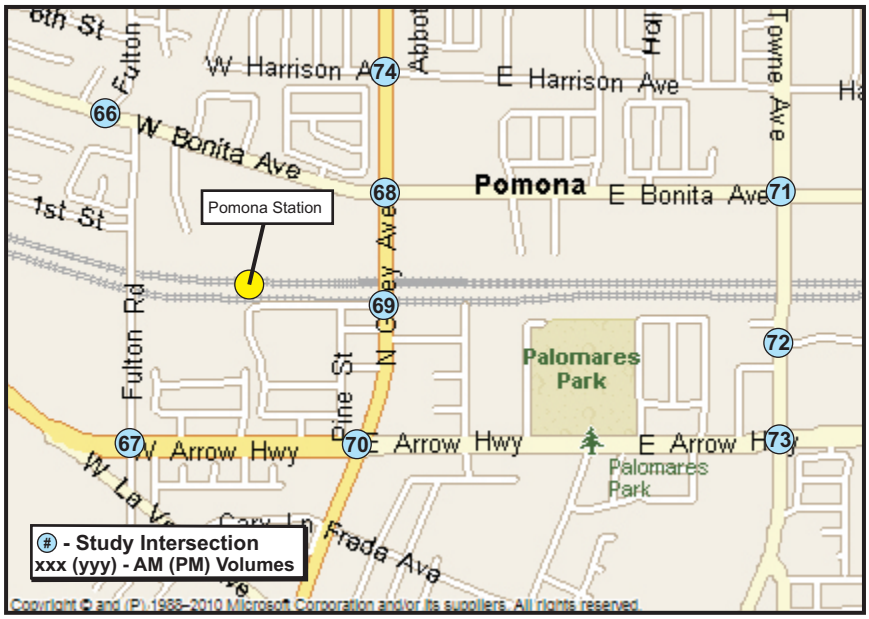
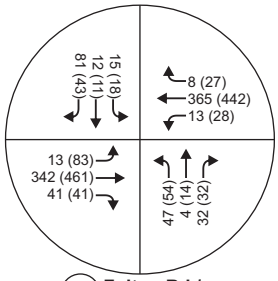
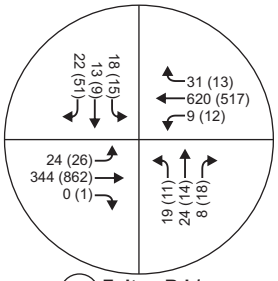
45 Wheeler Ave / Arrow Hwy
46 A St / Third St
47 A St / First St
48 A St / Arrow Hwy
49 D St / Third St
50 D St / First St
51 D St / Arrow Hwy
52 E St / Third St
53 E St / Second St
54 E St / First St
55 E St / Arrow Hwy
56 White Ave / Third St
57 White Ave / Second St
58 White Ave / First St
59 White Ave / Sierra Way
60 White Ave / Arrow Hwy
61 D St / Bonita Ave
62 White Ave / Foothill Blvd
63 White Ave / Bonita Ave
64 White Ave / McKinley Ave
65 La Verne Ave / Arrow Hwy





66 Fulton Rd / Bonita Ave



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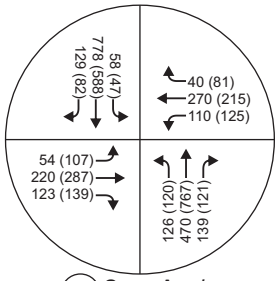

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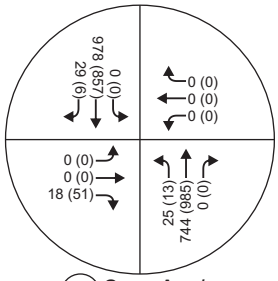

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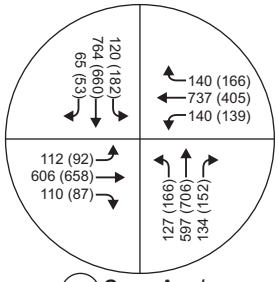

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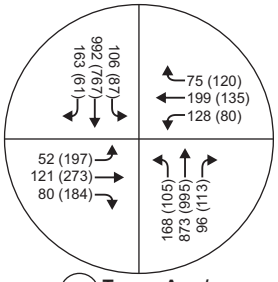

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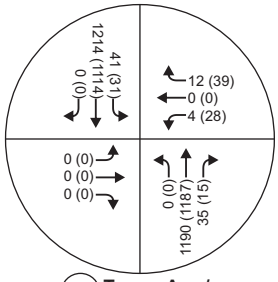

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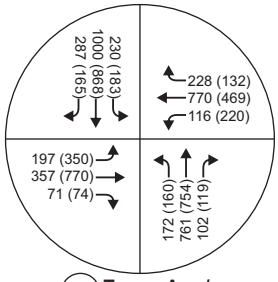

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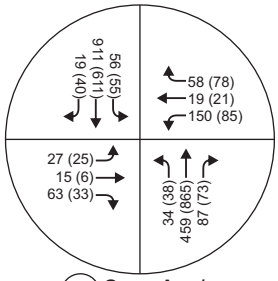

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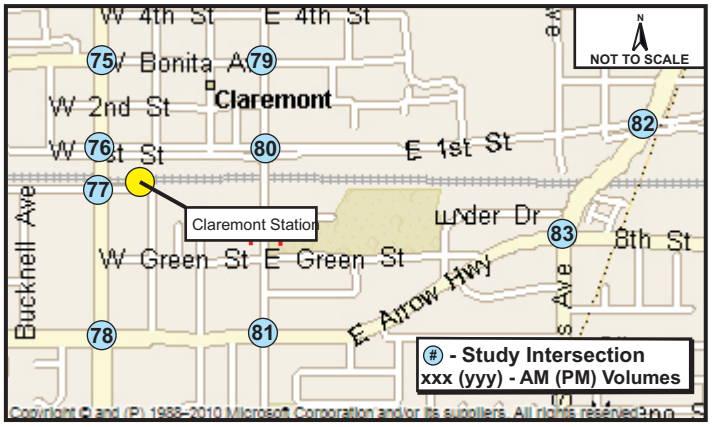

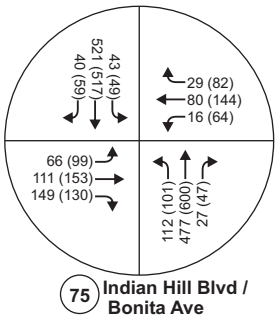

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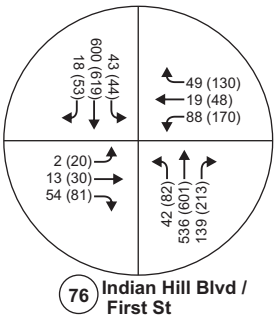

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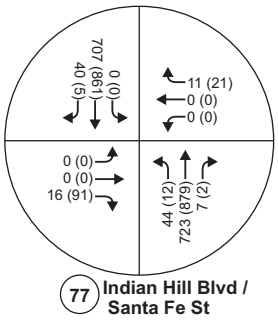

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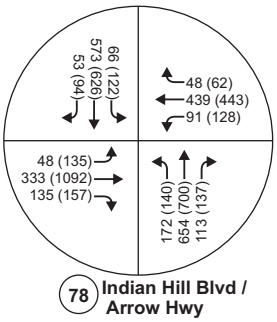

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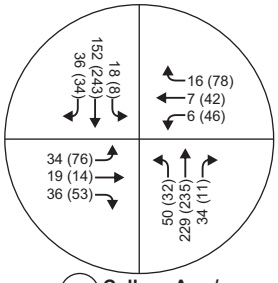

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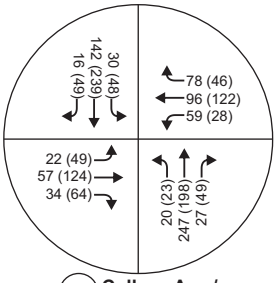
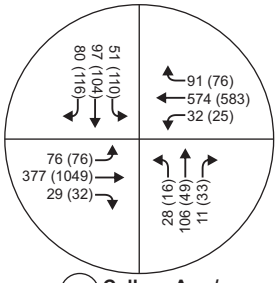
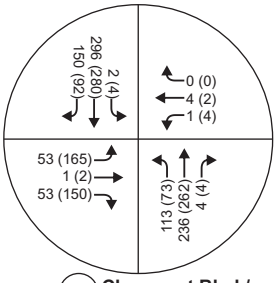


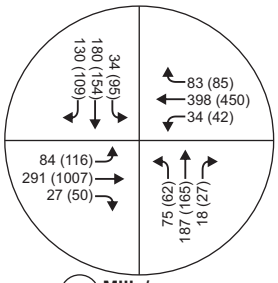
80 College Ave / First St



81 College Ave / Arrow Hwy



82 Claremont Blvd / First St



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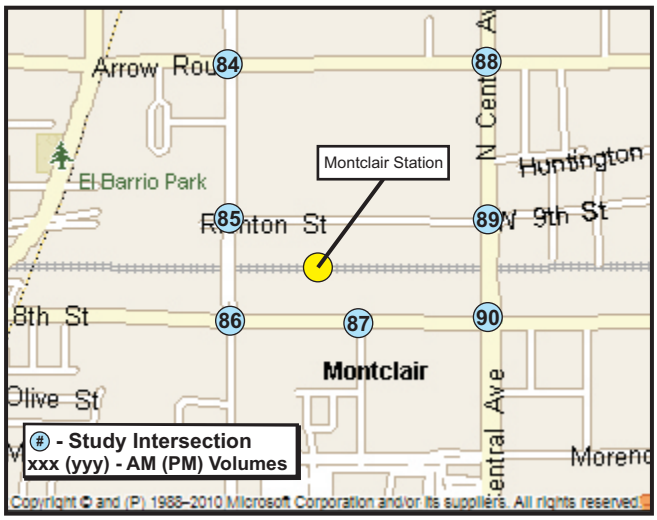
Arrow Rou
84
88
N Cent
Montclair Station
El Barrio Park
Huntington
Richton St
85
89
W 9th St
8th St
86
87
90
Montclair
Olive St
Central Ave
Moreno
- Study Intersection
xxx (yyy) - AM (PM) Volumes
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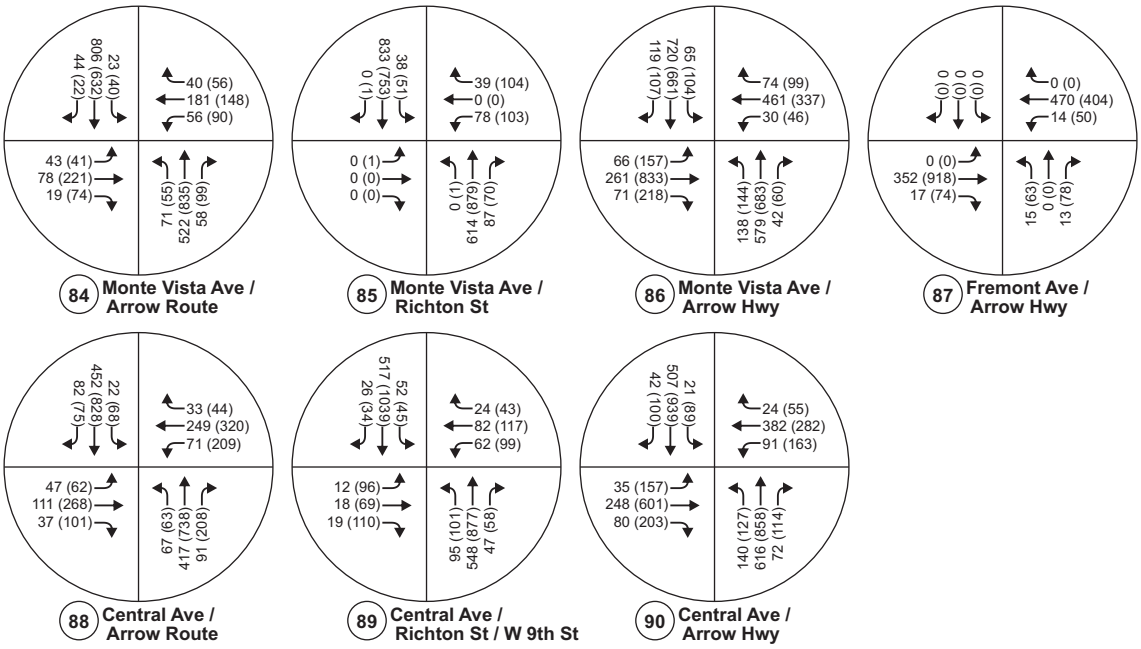

806 (632)
44 (22)
23 (40)
40 (56)
181 (148)
56 (90)
43 (41)
78 (221)
19 (74)
71 (55)
522 (835)
58 (99)
84 Monte Vista Ave / Arrow Route
833 (753)
0 (1)
38 (51)
39 (104)
0 (0)
78 (103)
0 (1)
0 (0)
0 (0)
0 (1)
614 (879)
87 (70)
85 Monte Vista Ave / Richton St
720 (661)
119 (107)
65 (104)
74 (99)
461 (337)
30 (46)
66 (157)
261 (833)
71 (218)
138 (144)
579 (683)
42 (60)
86 Monte Vista Ave / Arrow Hwy
0 (0)
0 (0)
0 (0)
0 (0)
470 (404)
14 (50)
0 (0)
352 (918)
17 (74)
15 (63)
0 (0)
13 (78)
87 Fremont Ave / Arrow Hwy
452 (828)
82 (75)
22 (68)
33 (44)
249 (320)
71 (209)
47 (62)
111 (268)
37 (101)
67 (63)
417 (738)
91 (208)
88 Central Ave / Arrow Route
517 (1039)
26 (34)
52 (45)
24 (43)
82 (117)
62 (99)
12 (96)
18 (69)
19 (110)
95 (101)
548 (877)
47 (58)
89 Central Ave / Richton St / W 9th St
507 (939)
42 (100)
21 (89)
24 (55)
382 (282)
91 (163)
35 (157)
248 (601)
80 (203)
140 (127)
616 (858)
72 (114)
90 Central Ave / Arrow Hwy

The future No Build Alternative was analyzed, and the resulting traffic operating conditions and corresponding LOS are provided in **Table 5-5** and also included in **Appendix C**. As noted earlier, this analysis includes all highway and transit projects and operations within the region that SCAG and Metro expect to be in place by the year 2035. These transportation projects are accounted for in the travel demand forecasting model that was used to develop the growth factors.

Table 5-5: No Build Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
1	Barranca Avenue/Bennett Avenue	Glendora	C	21.1	B	12.4
			A[1]	7.3[1]	A[1]	1.8[1]
2	Barranca Avenue/Foothill Boulevard	Glendora	B	12.1	A	8.4
3	Grand Avenue/Foothill Boulevard	Glendora	C	29.5	C	34.3
4	Vermont Avenue E/Ada Avenue	Glendora	B	11.8	B	13.7
			A[1]	4.4[1]	A[1]	5.2[1]
5	Vermont Avenue/Route 66	Glendora	A	7.5	A	8.4
6	Vermont Avenue/Foothill Boulevard	Glendora	A	7.7	A	7.0
7	Vermont Avenue West/Ada Avenue	Glendora	B	11.1	B	12.0
			A[1]	2.6[1]	A[1]	2.2[1]
8	Glendora Avenue/Foothill Boulevard	Glendora	C	25.0	C	30.2
9	Glendora Avenue/Ada Avenue	Glendora	B	12.2	B	14.9
10	Glendora Avenue/Route 66	Glendora	C	24.4	C	29.5
11	Pasadena Avenue/Lemon Avenue	Glendora	A	7.9	A	7.8
12	Pasadena Avenue/Route 66	Glendora	B	11.8	B	10.7
13	Glenwood Avenue/Lemon Avenue	Glendora	A	9.9	B	11.2
			A[1]	2.3[1]	A[1]	2.6[1]
14	Glenwood Avenue/Route 66	Glendora	F	OFL	F	1097.3
			F[1]	502.5[1]	F[1]	51.6[1]
15	Elwood Avenue/Lemon Avenue	Glendora	B	10.7	B	10.9
			A[1]	2.2[1]	A[1]	2.1[1]
16	Elwood Avenue/Route 66	Glendora	B	15.4	B	16.2
17	Loraine Avenue/Lemon Avenue	Glendora	C	20.0	B	13.7
			A[1]	1.8[1]	A[1]	1.2[1]
18	Loraine Avenue/Route 66	Glendora	B	19.3	B	11.8
19	Lone Hill Avenue/Auto Centre Drive	Glendora	B	15.6	C	24.1
20	Barranca Avenue/Sierra Madre Avenue	Glendora	C	20.5	C	15.8
			A[1]	4.3[1]	A[1]	3.1[1]
21	Glendora Avenue/Sierra Madre Avenue	Glendora	E	47.0	B	14.5
22	Lone Hill Avenue/Glendora Marketplace	Glendora	B	15.4	C	23.1
23	Lone Hill Avenue/Gladstone Street	San Dimas	B	18.8	C	25.5
24	SR-57 (southbound)/Arrow Highway	San Dimas	A	7.5	C	20.2
25	SR-57 (northbound)/Arrow Highway & Bonita Avenue	San Dimas	C	26.2	C	29.2
26	Eucla Avenue/Fifth Street	San Dimas	A	7.4	A	7.4

Table 5-5: No Build Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
27	Eucla Avenue/Second Street	San Dimas	A	9.7	B	10.5
			A[1]	0.7[1]	A[1]	1.0[1]
28	Eucla Avenue/Bonita Avenue	San Dimas	A	4.7	A	8.1
29	Eucla Avenue/Arrow Highway	San Dimas	A	8.4	B	11.8
30	Acacia Street/Fifth Street	San Dimas	A	9.2	A	9.3
			A[1]	1.4[1]	A[1]	1.0[1]
31	Acacia Street/Second Street	San Dimas	A	9.1	A	9.2
			A[1]	7.4[1]	A[1]	6.4[1]
32	Acacia Street/Bonita Avenue	San Dimas	B	11.1	C	24.4
			A[1]	0.7[1]	A[1]	1.4[1]
33	Cataract Avenue/Second Street	San Dimas	A	9.9	B	10.0
			A[1]	8.4[1]	A[1]	8.0[1]
34	Cataract Avenue/Bonita Avenue	San Dimas	B	12.5	C	25.0
35	Monte Vista Avenue/Second Street	San Dimas	A	9.3	A	9.9
			A[1]	4.8[1]	A[1]	3.7[1]
36	Monte Vista Avenue/Bonita Avenue	San Dimas	C	20.2	F	119.5
			A[1]	1.2[1]	A[1]	9.2[1]
37	San Dimas Avenue/Second Street	San Dimas	C	21.2	E	36.2
			A[1]	1.0[1]	A[1]	2.3[1]
38	San Dimas Avenue/Bonita Avenue	San Dimas	B	12.2	B	19.6
39	San Dimas Avenue/Arrow Highway	San Dimas	C	28.9	D	48.9
40	Walnut Avenue/Bonita Avenue	San Dimas	A	6.7	B	13.9
41	Walnut Avenue/Arrow Highway	San Dimas	B	12.0	B	11.8
42	San Dimas Canyon Road/Bonita Avenue	San Dimas	A	7.3	A	9.0
43	San Dimas Canyon Road/Arrow Highway	San Dimas	B	13.8	B	12.1
44	Wheeler Avenue/Third Street	La Verne	C	16.5	C	15.6
			A[1]	2.9[1]	A[1]	2.6[1]
45	Wheeler Avenue/Arrow Highway	La Verne	B	14.8	B	12.9
46	A Street/Third Street	La Verne	B	10.3	B	10.6
			A[1]	5.4[1]	A[1]	4.9[1]
47	A Street/First Street	La Verne	A	9.3	A	10.0
			A[1]	1.5[1]	A[1]	2.3[1]
48	A Street/Arrow Highway	La Verne	F	198.6	F	62.6
			A[1]	6.1[1]	A[1]	1.6[1]
49	D Street/Third Street	La Verne	A	9.6	B	13.5
50	D Street/First Street	La Verne	A	9.7	B	11.5
			A[1]	1.0[1]	A[1]	2.0[1]
51	D Street/Arrow Highway	La Verne	A	5.9	A	6.2
52	E Street/Third Street	La Verne	A	9.9	B	12.9
53	E Street/Second Street	La Verne	B	14.3	B	14.8

Table 5-5: No Build Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
			A[1]	2.8[1]	A[1]	3.1[1]
54	E Street/First Street	La Verne	B	11.4	B	12.6
			A[1]	0.9[1]	A[1]	1.0[1]
55	E Street/Arrow Highway	La Verne	C	22.5	C	27.6
56	White Avenue/Third Street	La Verne	D	26.5	F	78.9
			A[1]	1.8[1]	A[1]	3.2[1]
57	White Avenue/Second Street	La Verne	C	24.8	F	56.4
			A[1]	1.3[1]	A[1]	1.8[1]
58	White Avenue/First Street	La Verne	D	28.4	E	49.5
			A[1]	2.1[1]	A[1]	2.8[1]
59	White Avenue/Sierra Way	La Verne	B	11.2	C	18.0
			A[1]	0.4[1]	A[1]	0.5[1]
60	White Avenue/Arrow Highway	La Verne	C	26.3	C	30.6
61	D Street/Bonita Avenue	La Verne	A	8.1	B	10.2
62	White Avenue/Foothill Boulevard	La Verne	C	29.6	D	39.9
63	White Avenue/Bonita Avenue	La Verne	B	14.0	B	17.3
64	White Avenue/McKinley Avenue	La Verne	B	11.0	B	14.1
65	La Verne Avenue/Arrow Highway	La Verne	F	50.6	F	471.1
			B[1]	10.9[1]	F[1]	54.3[1]
66	Fulton Road/Bonita Avenue	Pomona	C	22.1	F	58.1
			A[1]	3.6[1]	A[1]	6.8[1]
67	Fulton Road/Arrow Highway	Pomona	C	22.4	D	33.9
			A[1]	2.2[1]	A[1]	2.1[1]
68	Garey Avenue/Bonita Avenue	Pomona	B	16.0	B	15.8
69	Garey Avenue/Santa Fe Street	Pomona	B	10.8	B	12.4
			A[1]	0.3[1]	A[1]	0.4[1]
70	Garey Avenue/Arrow Highway	Pomona	C	28.3	C	30.9
71	Towne Avenue/Bonita Avenue	Pomona	A	9.9	B	11.2
72	Towne Avenue/Towne Center Drive	Pomona	D	27.1	F	50.9
			A[1]	0.4[1]	A[1]	1.6[1]
73	Towne Avenue/Arrow Highway	Pomona	D	44.5	D	45.1
74	Garey Avenue/Harrison Avenue	Pomona	A	7.5	A	6.0
75	Indian Hill Boulevard/Bonita Avenue	Claremont	A	8.1	A	9.1
76	Indian Hill Boulevard/First Street	Claremont	B	10.9	B	15.5
77	Indian Hill Boulevard/Santa Fe Street	Claremont	B	11.2	B	13.2
			A[1]	0.5[1]	A[1]	0.8[1]
78	Indian Hill Boulevard/Arrow Highway	Claremont	C	21.2	D	37.3
79	College Avenue/Bonita Avenue	Claremont	A	9.9	B	12.5
80	College Avenue/First Street	Claremont	B	10.8	B	12.6
81	College Avenue/Arrow Highway	Claremont	A	6.3	A	7.3
82	Claremont Boulevard/First Street	Claremont	A	3.3	A	5.9

Table 5-5: No Build Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
83	Mills/Claremont/Arrow Highway	Claremont	B	14.9	B	19.8
84	Monte Vista Avenue/Arrow Route	Montclair	B	13.1	B	14.6
85	Monte Vista Avenue/Richton Street	Montclair	A	3.3	A	6.3
86	Monte Vista Avenue/Arrow Highway	Montclair	B	18.7	C	31.0
87	Fremont Avenue/Arrow Highway	Montclair	A	1.8	A	4.1
88	Central Avenue/Arrow Route	Montclair	B	12.1	C	20.5
89	Central Avenue/Richton Street/W 9th Street	Montclair	A	8.4	B	10.4
90	Central Avenue/Arrow Highway	Montclair	B	15.9	C	29.6

[1] Overall intersection LOS and delay at unsignalized intersections is reported to support the air quality analysis
[2] Average vehicle delay in seconds
[3] Shading shows intersections that, in 2035, would operate at LOS E or F under the No Build Alternative

Under the No Build Alternative, four intersections would operate at LOS E or F in the AM peak hour, and ten intersections would operate at LOS E or F in the PM peak hour (shaded cells). The others would continue to operate at LOS D or better. All the highlighted intersections would be unsignalized two-way stop-controlled intersections. Vehicles approaching these intersections from the minor streets would not find adequate gaps to perform their maneuvers in a timely manner. Two LOS and delay numbers are shown at the unsignalized intersection locations to report the LOS information required for both traffic operations and air quality evaluation. The top line shows the LOS and corresponding delay for the worst-case stop-controlled approach, which is required to determine traffic operating conditions. The bottom line shows the intersection LOS and corresponding delay, information that is required to support the air quality analysis.

Roadway Segment Traffic Operations

The same growth factors were also applied to each of the 35 study roadway segments. **Table 5-6** presents the results of the analysis. All roadway segments would operate at LOS D or better, except North Towne Avenue between Arrow Highway and Bonita Avenue, which would operate at LOS E.

Table 5-6: No Build Alternative – Roadway Segment Average Daily Traffic Analysis (2035)

Roadway Segment	From	To	Capacity[1,2,3,4] (Vehicles/Day)	Volume (Vehicles/Day)	V/C	LOS
Glendora						
South Lone Hill Avenue	West Gladstone Street	Auto Centre Drive	32,000	28,179	0.88	D
South Loraine Avenue	Route 66	East Lemon Avenue	16,000	10,733	0.67	B
South Elwood Avenue	Route 66	East Lemon Avenue	12,000	2,753	0.23	A
South Glenwood Avenue	Route 66	East Lemon Avenue	12,000	2,842	0.24	A
South Pasadena Avenue	Route 66	East Lemon Avenue	12,000	2,690	0.22	A
South Glendora Avenue	Route 66	Foothill Boulevard	32,000	18,620	0.58	A
South Vermont Avenue	Route 66	West Foothill Boulevard	12,000	4,332	0.36	A
Grand Avenue	Route 66	West Leadora Avenue	32,000	14,439	0.45	A
Foothill Boulevard	Barranca Avenue	Glendora Avenue	16,000	12,323	0.77	C
North Barranca Avenue	West Foothill Boulevard	West Leadora Avenue	12,000	8,436	0.70	C
San Dimas						
San Dimas Canyon Rd	Arrow Highway	Bonita Avenue	32,000	9,328	0.29	A
Walnut Avenue	East Arrow Highway	East Bonita Avenue	16,000	7,535	0.47	A
San Dimas Avenue	Arrow Highway	Bonita Avenue	32,000	12,339	0.39	A
Monte Vista Avenue	Commercial Street	Bonita Avenue	12,000	546	0.05	A
Cataract Avenue	Arrow Highway	First Street	12,000	3,084	0.26	A
Bonita Avenue	Eucla Avenue	San Dimas Avenue	32,000	15,893	0.50	A
Eucla Avenue	Bonita Avenue	Third Street	12,000	3,813	0.32	A
West Gladstone Street	Lone Hill Avenue	Amelia Avenue	32,000	15,846	0.50	A
La Verne						
White Avenue	Arrow Highway	Third Street	32,000	18,821	0.59	A
E Street	Arrow Highway	Third Street	16,000	6,931	0.43	A
D Street	Arrow Highway	Third Street	12,000	5,709	0.48	A
A Street	Arrow Highway	Third Street	12,000	1,342	0.11	A
Wheeler Avenue	Arrow Highway	Third Street	32,000	10,364	0.32	A

Table 5-6: No Build Alternative – Roadway Segment Average Daily Traffic Analysis (2035)

Roadway Segment	From	To	Capacity[1,2,3,4] (Vehicles/Day)	Volume (Vehicles/Day)	V/C	LOS
Pomona						
North Towne Avenue	Arrow Highway	Bonita Avenue	32,000	29,725	0.93	E
North Garey Avenue	Arrow Highway	Bonita Avenue	32,000	24,579	0.77	C
Fulton Road	Metrolink Driveway	—	16,000	1,580	0.10	A
Fulton Road	Arrow Highway	Bonita Avenue	16,000	1,921	0.12	A
Claremont						
South Mills Avenue/Claremont Boulevard	Arrow Highway	East First Street	32,000	8,865	0.28	A
Indian Hill Boulevard	Arrow Highway	Bonita Avenue	32,000	22,100	0.69	B
College Avenue	East Arrow Highway	West Bonita Avenue	12,000	5,930	0.49	A
College Avenue	Green Street	—	12,000	6,497	0.54	A
Cambridge Avenue	West Arrow Highway	Bonita Avenue	12,000	5,359	0.45	A
First Street	Indian Hill Boulevard	College Avenue	24,000	8,615	0.36	A
Montclair						
Monte Vista Avenue	Richton Street	Arrow Highway	32,000	22,228	0.69	B
Central Avenue	Richton Street	Arrow Highway	32,000	27,239	0.85	D

[1] Capacity of 32,000 assumes 800 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.
[2] Capacity of 24,000 assumes 600 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.
[3] Capacity of 16,000 assumes 800 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.
[4] Capacity of 12,000 assumes 600 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.

5.2.2 TSM Alternative

Intersection Traffic Conditions

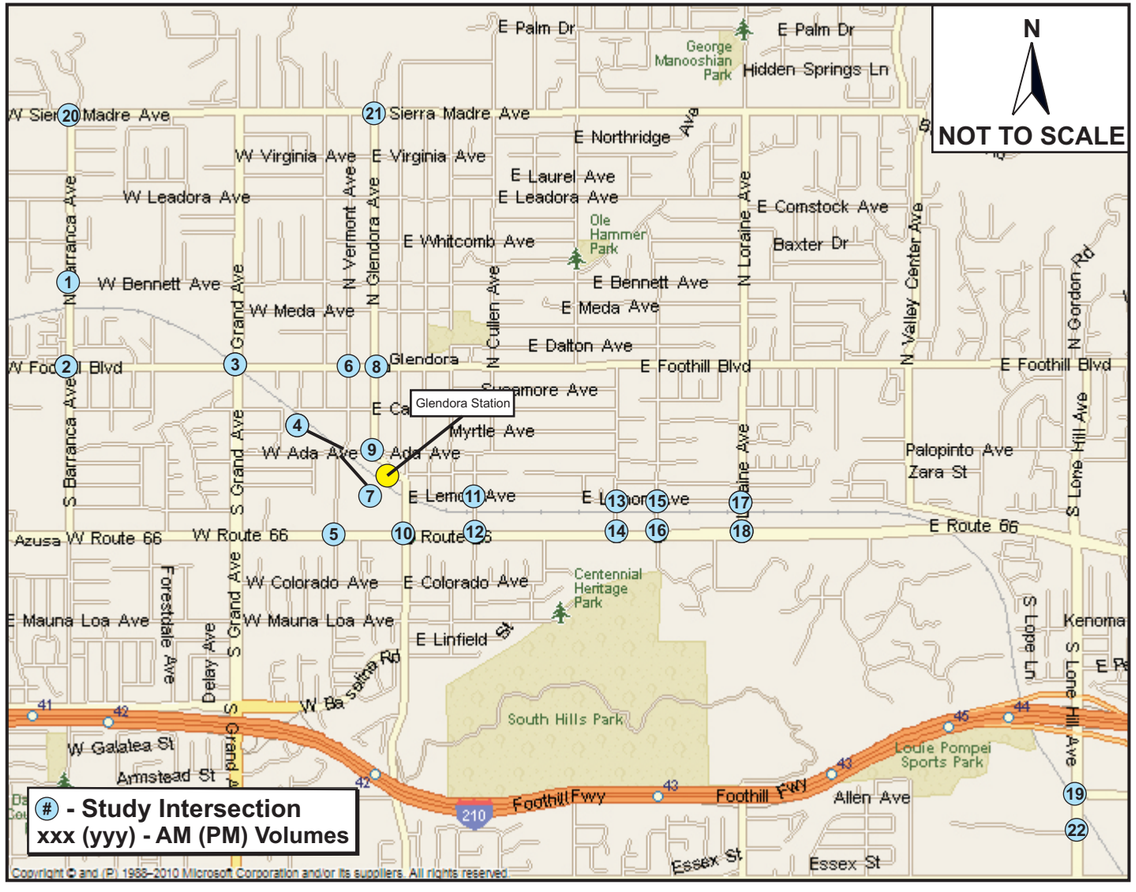
The TSM Alternative would add a new rapid bus line from the existing Azusa/Citrus Station (western terminus of the Gold Line Foothill Extension—Pasadena to Azusa) to the existing Metrolink Station in Montclair. These buses would operate at 10-minute headways in each direction during the weekday AM and PM peak hours, and every 20 minutes in each direction during the weekday off-peak hours.

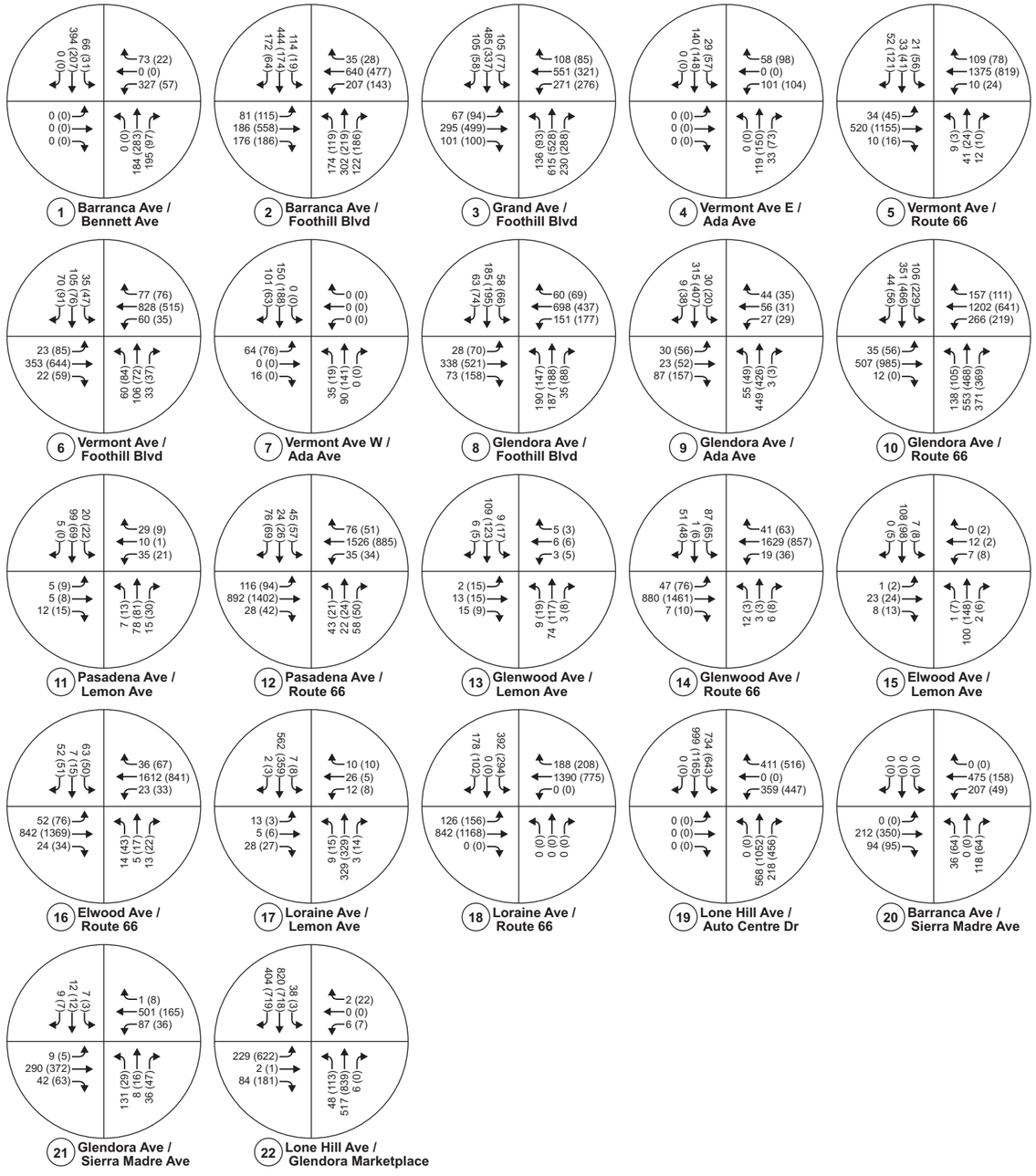
Adjustments to traffic flow patterns caused by the rapid bus line were determined by using projections from the transportation model developed for this study. The year 2035 No Build Alternative and the TSM Alternative peak period model data were compared to determine the effects of the proposed alternative on traffic flow and circulation patterns. The peak period link data from the No Build and TSM travel demand model outputs were used in this analysis. **Table 5-7** presents the percentage change comparison between 2035 TSM Alternative traffic forecasts and the 2035 No Build traffic forecasts. The table shows the percentage change in traffic volume caused by change in circulation patterns.

Table 5-7: TSM Alternative – Average AM and PM Percentage Change in Traffic Volumes (2035)

Glendora	-0.241%
San Dimas	-0.389%
La Verne	-0.212%
Pomona	-0.380%
Claremont	-0.483%
Montclair	-0.258%

The overall shifts in traffic were applied to the 2035 No Build PM peak hour turning movement volumes to develop the future AM and PM peak hour projections for the TSM Alternative at each of the 90 study intersections. In addition, the number of buses operating during the peak hour was added to peak hour turning movements of the affected intersections to yield a set of 2035 forecasts. Intersection lane configurations are assumed to be the same as with the No Build Alternative. **Figures 5-7 to 5-12** show the TSM peak hour traffic volumes during the AM/PM peak hours.Intersection lane configurations for this alternative are assumed to be the same as the No Build Alternative.

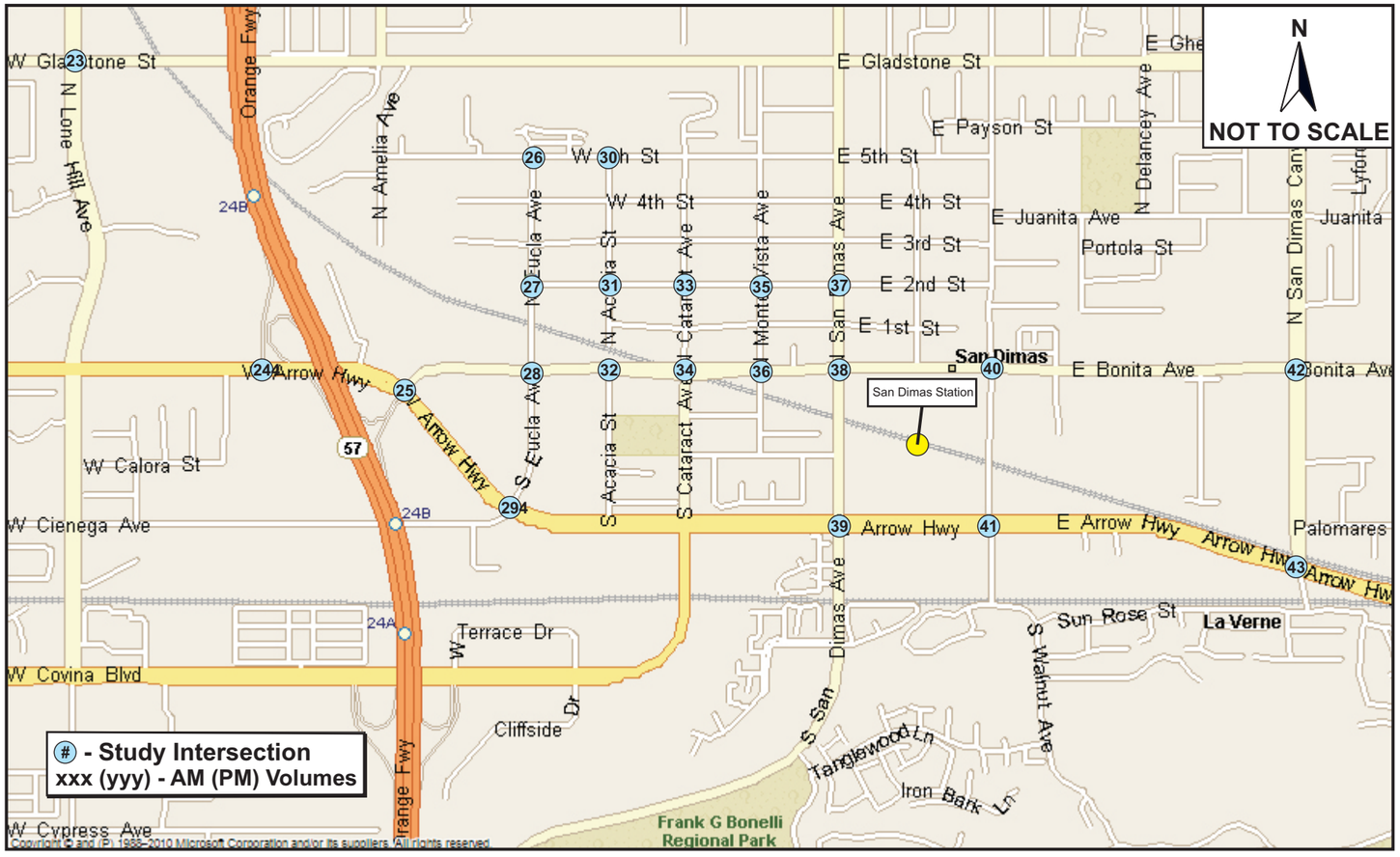


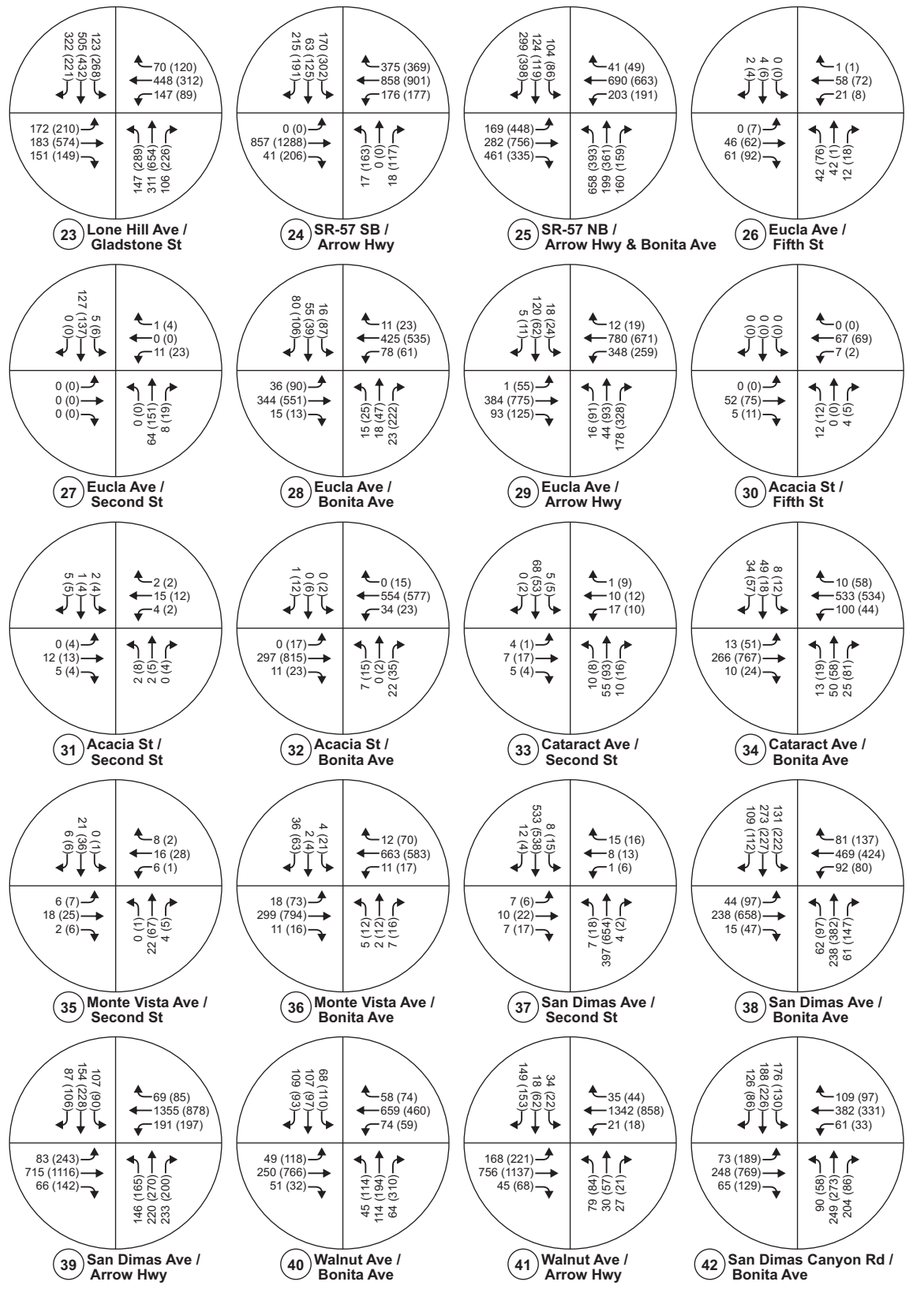


INTUEOR MAXIMIZING VALUE

Metro Gold Line Foothill Extension – Azusa To Montclair

Figure 5-7: TSM (2035) AM/PM Peak Hour Traffic Volumes: Glendora

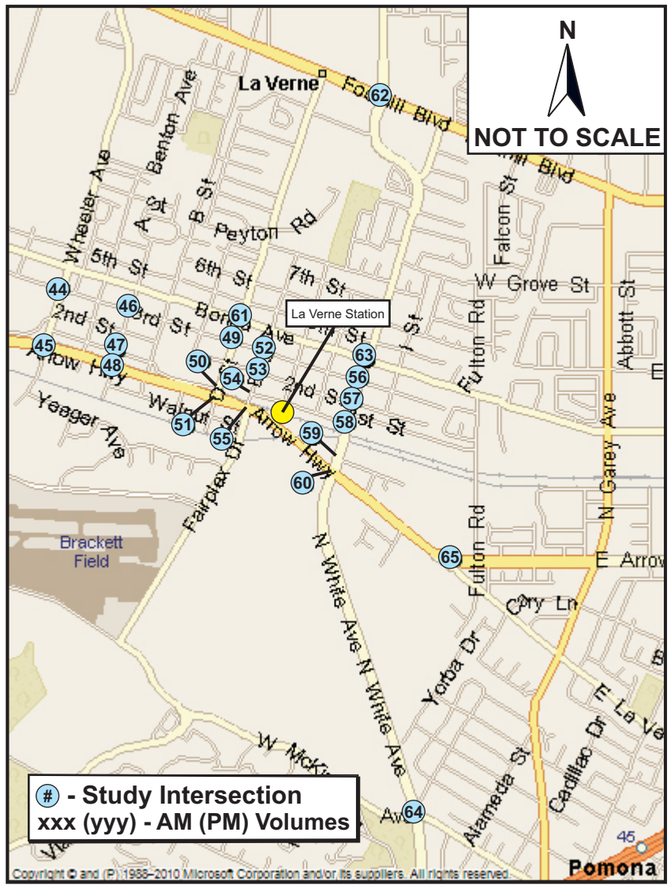


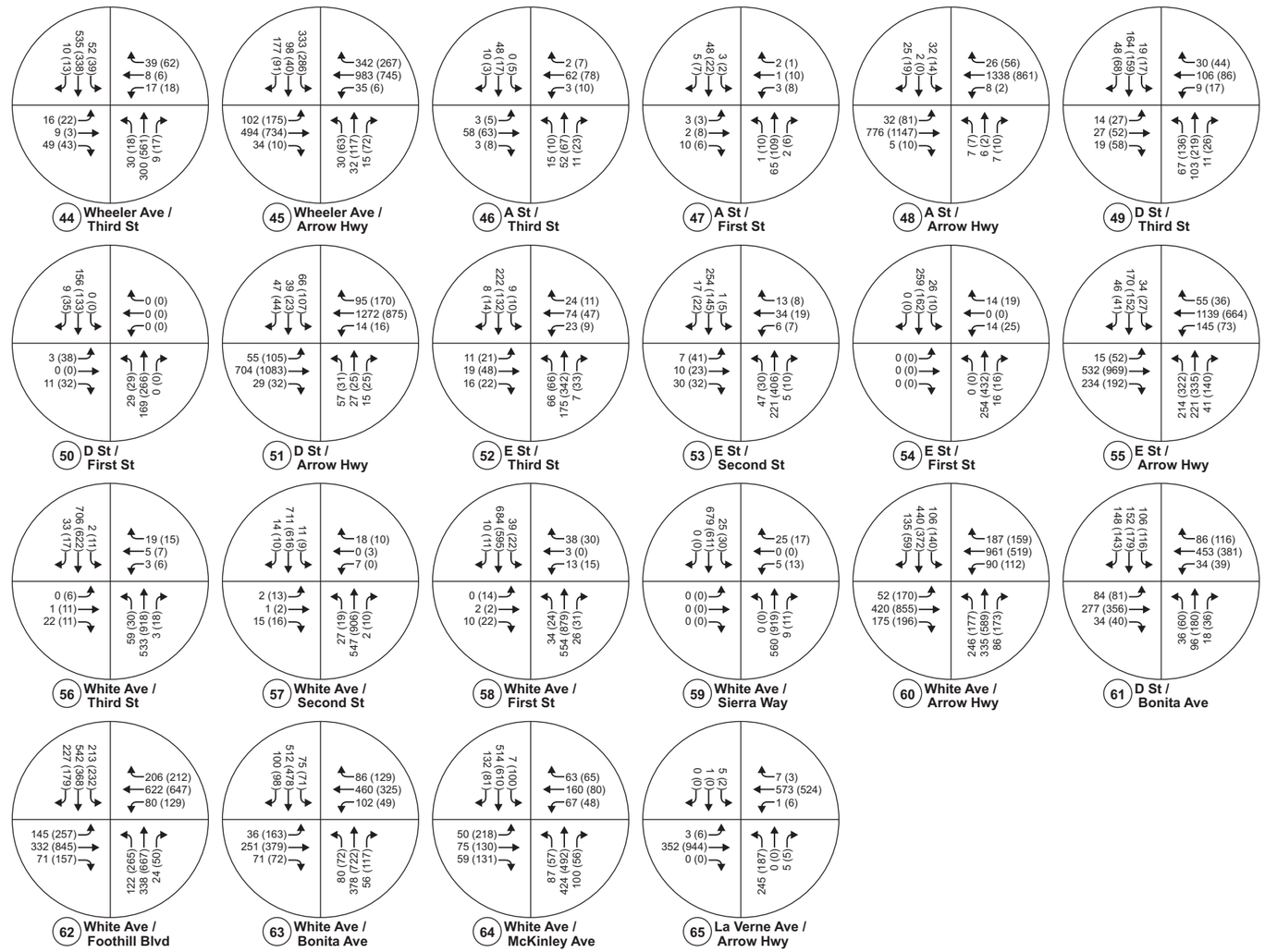


INTUEOR MAXIMIZING VALUE

Metro Gold Line Foothill Extension – Azusa To Montclair

Figure 5-8: TSM (2035) AM/PM Peak Hour Traffic Volumes: San Dimas

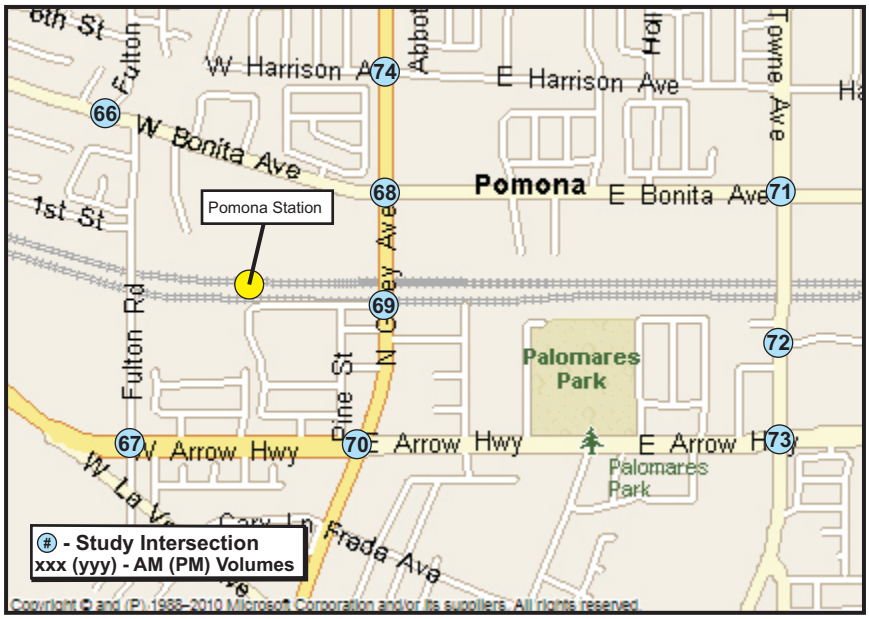


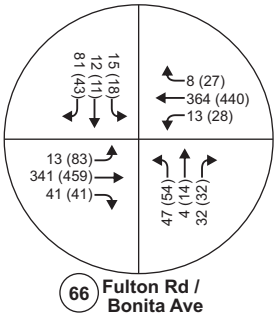


INTUEOR MAXIMIZING VALUE

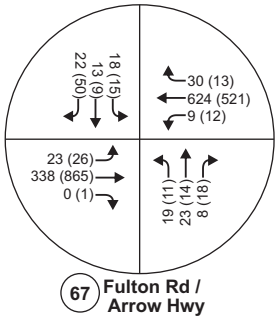
Metro Gold Line Foothill Extension – Azusa To Montclair

Figure 5-9: TSM (2035) AM/PM Peak Hour Traffic Volumes: La Verne

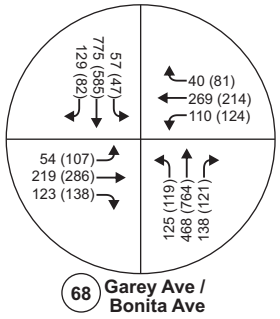




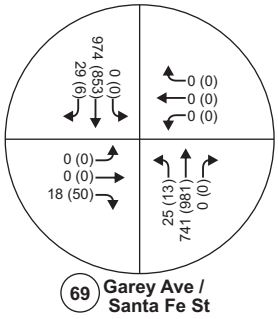
66 Fulton Rd / Bonita Ave



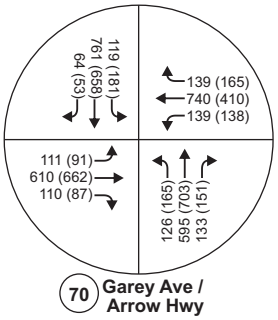
67 Fulton Rd / Arrow Hwy



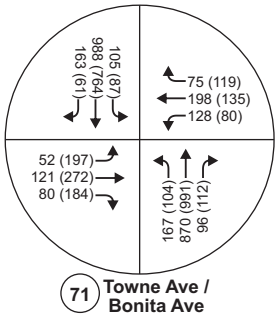
68 Garey Ave / Bonita Ave



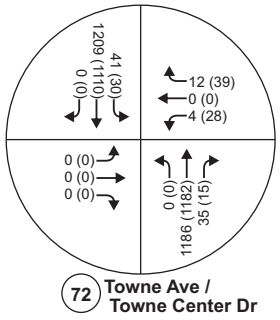
69 Garey Ave / Santa Fe St



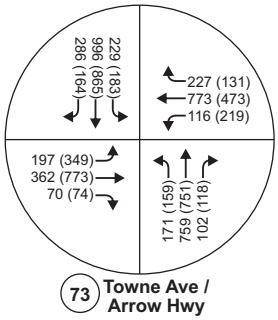
70 Garey Ave / Arrow Hwy



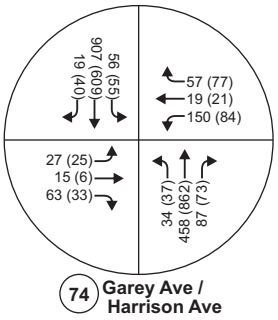
71 Towne Ave / Bonita Ave



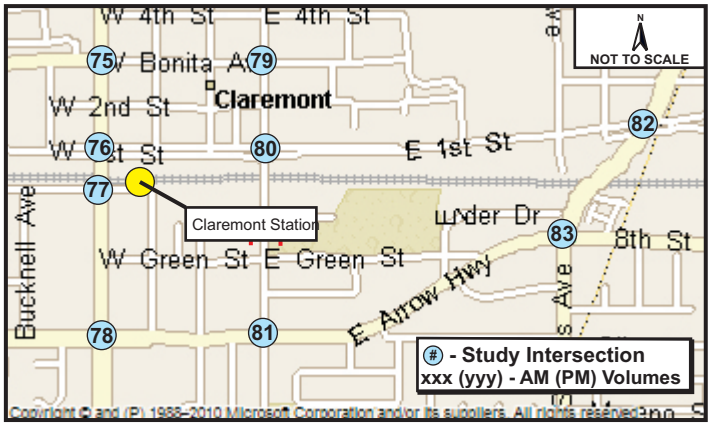
72 Towne Ave / Towne Center Dr

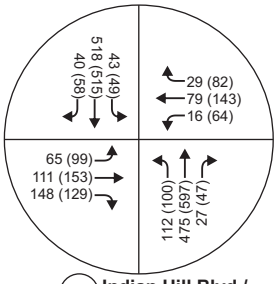


73 Towne Ave / Arrow Hwy

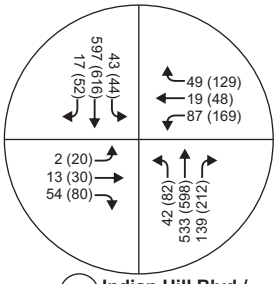


74 Garey Ave / Harrison Ave





75 Indian Hill Blvd / Bonita Ave



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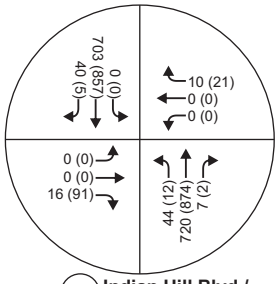
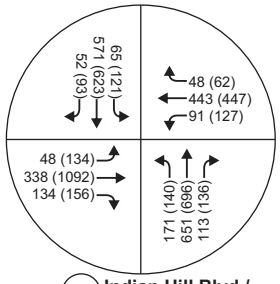
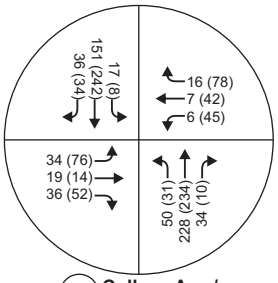


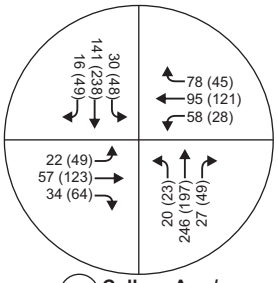
77 Indian Hill Blvd / Santa Fe St



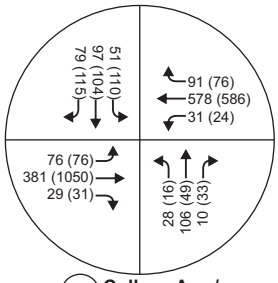
78 Indian Hill Blvd / Arrow Hwy



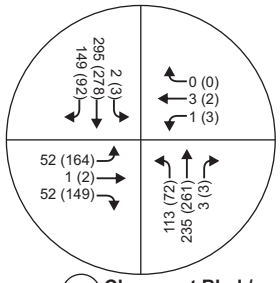
79 College Ave / Bonita Ave



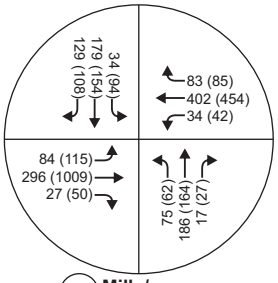
80 College Ave / First St



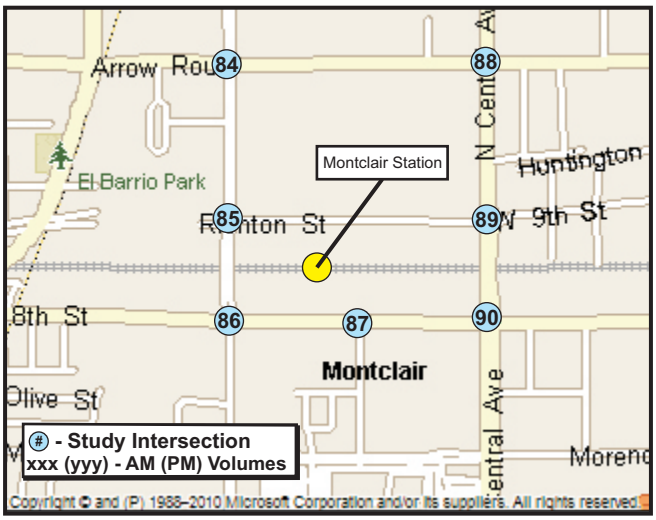
81 College Ave / Arrow Hwy

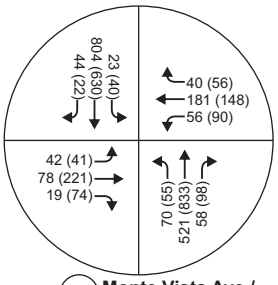


82 Claremont Blvd / First St

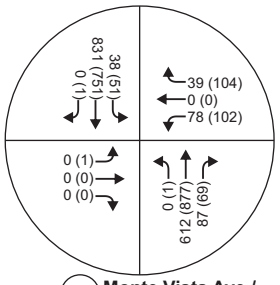


83 Mills/ Claremont / Arrow Hwy

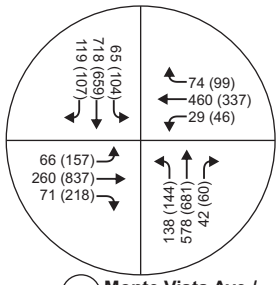




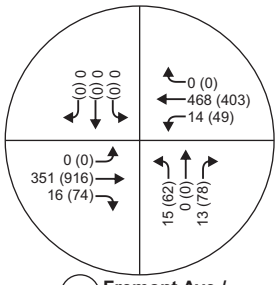
84 Monte Vista Ave / Arrow Route



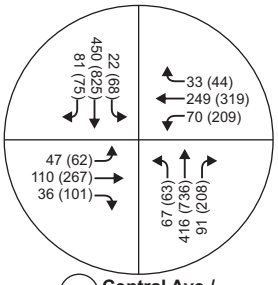
85 Monte Vista Ave / Richton St



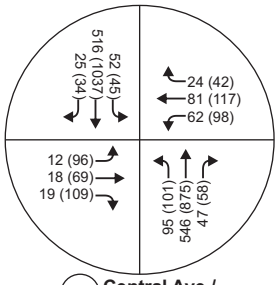
86 Monte Vista Ave / Arrow Hwy



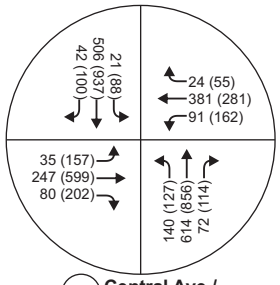
87 Fremont Ave / Arrow Hwy



88 Central Ave / Arrow Route



89 Central Ave / Richton St / W 9th St



90 Central Ave / Arrow Hwy

Future traffic operations were evaluated by incorporating the volumes, roadway geometrics, type of control and signal phasing, using the Synchro software. The results of the traffic analysis for the TSM Alternative and corresponding AM and PM peak hour LOS presented in **Table 5-8** and are also included in **Appendix D**, are similar to the No Build Alternative. A review of the results indicates that, under the TSM Alternative, 86 intersections would continue to operate at LOS D or better in the AM peak hour and 80 intersections would continue to operate at LOS D or better in the PM peak hour.

Table 5-8: TSM Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
1	Barranca Avenue/Bennett Avenue	Glendora	C	21.0	B	12.4
			A[1]	7.3[1]	A[1]	1.8[1]
2	Barranca Avenue/Foothill Boulevard	Glendora	B	12.0	A	8.4
3	Grand Avenue/Foothill Boulevard	Glendora	C	29.5	C	34.3
4	Vermont Avenue East/Ada Avenue	Glendora	B	11.8	B	13.7
			A[1]	4.4[1]	A[1]	5.2[1]
5	Vermont Avenue/Route 66	Glendora	A	7.5	A	8.4
6	Vermont Avenue/Foothill Boulevard	Glendora	A	7.7	A	7.0
7	Vermont Avenue West/Ada Avenue	Glendora	B	11.1	B	12.0
			A[1]	2.6[1]	A[1]	2.2[1]
8	Glendora Avenue/Foothill Boulevard	Glendora	C	24.9	C	30.0
9	Glendora Avenue/Ada Avenue	Glendora	B	12.2	B	14.9
10	Glendora Avenue/Route 66	Glendora	C	24.6	C	29.5
11	Pasadena Avenue/Lemon Avenue	Glendora	A	7.9	A	7.8
12	Pasadena Avenue/Route 66	Glendora	B	11.8	B	10.7
13	Glenwood Avenue/Lemon Avenue	Glendora	A	9.9	B	11.2
			A[1]	2.3[1]	A[1]	2.6[1]
14	Glenwood Avenue/Route 66	Glendora	F	OFL	F	OFL
			F[1]	501.5[1]	F[1]	453.4[1]
15	Elwood Avenue/Lemon Avenue	Glendora	B	10.7	B	10.9
			A[1]	2.2[1]	A[1]	2.1[1]
16	Elwood Avenue/Route 66	Glendora	B	15.4	B	16.3
17	Loraine Avenue/Lemon Avenue	Glendora	C	20.0	B	13.7
			A[1]	1.8[1]	A[1]	1.2[1]
18	Loraine Avenue/Route 66	Glendora	B	19.3	B	11.8
19	Lone Hill Avenue/Auto Centre Drive	Glendora	B	15.6	C	24.1
20	Barranca Avenue/Sierra Madre Avenue	Glendora	C	20.4	C	15.8
			A[1]	4.3[1]	A[1]	3.1[1]
21	Glendora Avenue/Sierra Madre Avenue	Glendora	E	46.3	B	14.5
22	Lone Hill Avenue/Glendora Marketplace	Glendora	B	15.4	C	23.2
23	Lone Hill Avenue/Gladstone Street	San Dimas	B	18.8	C	25.4
24	SR-57 (southbound)/Arrow Highway	San Dimas	A	7.5	B	20.0

Table 5-8: TSM Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
25	SR-57 (northbound)/Arrow Highway & Bonita Avenue	San Dimas	C	26.3	C	29.3
26	Eucla Avenue/Fifth Street	San Dimas	A	7.4	A	7.4
27	Eucla Avenue/Second Street	San Dimas	A	9.7	B	10.4
			A[1]	0.7[1]	A[1]	1.0[1]
28	Eucla Avenue/Bonita Avenue	San Dimas	A	4.7	A	8.1
29	Eucla Avenue/Arrow Highway	San Dimas	A	8.4	B	11.8
30	Acacia Street/Fifth Street	San Dimas	A	9.2	A	9.3
			A[1]	1.4[1]	A[1]	1.0[1]
31	Acacia Street/Second Street	San Dimas	A	9.1	A	9.2
			A[1]	7.4[1]	A[1]	6.4[1]
32	Acacia Street/Bonita Avenue	San Dimas	B	11.1	C	24.6
			A[1]	0.7[1]	A[1]	1.4[1]
33	Cataract Avenue/Second Street	San Dimas	A	9.9	B	10.0
			A[1]	8.4[1]	A[1]	8.0[1]
34	Cataract Avenue/Bonita Avenue	San Dimas	B	12.5	D	25.1
35	Monte Vista Avenue/Second Street	San Dimas	A	9.3	A	9.8
			A[1]	4.7[1]	A[1]	3.7[1]
36	Monte Vista Avenue/Bonita Avenue	San Dimas	C	20.5	F	123.7
			A[1]	1.2[1]	A[1]	9.5[1]
37	San Dimas Avenue/Second Street	San Dimas	C	21.0	E	35.8
			A[1]	1.0[1]	A[1]	2.3[1]
38	San Dimas Avenue/Bonita Avenue	San Dimas	B	12.2	B	19.6
39	San Dimas Avenue/Arrow Highway	San Dimas	C	28.8	D	48.4
40	Walnut Avenue/Bonita Avenue	San Dimas	A	6.6	B	13.8
41	Walnut Avenue/Arrow Highway	San Dimas	B	12.0	B	11.8
42	San Dimas Canyon Road/Bonita Avenue	San Dimas	A	7.3	A	9.0
43	San Dimas Canyon Road/Arrow Highway	San Dimas	B	13.9	B	12.2
44	Wheeler Avenue/Third Street	La Verne	C	16.5	C	15.5
			A[1]	2.9[1]	A[1]	2.6[1]
45	Wheeler Avenue/Arrow Highway	La Verne	B	14.8	B	12.9
46	A Street/Third Street	La Verne	B	10.3	B	10.6
			A[1]	5.4[1]	A[1]	4.9[1]
47	A Street/First Street	La Verne	A	9.3	A	10.0
			A[1]	1.5[1]	A[1]	2.3[1]
48	A Street/Arrow Highway	La Verne	F	202.1	F	63.4
			A[1]	6.2[1]	A[1]	1.6[1]
49	D Street/Third Street	La Verne	A	9.6	B	13.5
50	D Street/First Street	La Verne	A	9.7	B	11.5

Table 5-8: TSM Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
			A[1]	1.0[1]	A[1]	2.0[1]
51	D Street/Arrow Highway	La Verne	A	5.9	A	6.2
52	E Street/Third Street	La Verne	A	9.9	B	12.9
53	E Street/Second Street	La Verne	B	14.2	B	14.8
			A[1]	2.8[1]	A[1]	3.1[1]
54	E Street/First Street	La Verne	B	11.4	B	12.6
			A[1]	0.9[1]	A[1]	1.0[1]
55	E Street/Arrow Highway	La Verne	C	22.5	C	27.7
56	White Avenue/Third Street	La Verne	D	26.3	F	78.6
			A[1]	1.7[1]	A[1]	3.2[1]
57	White Avenue/Second Street	La Verne	C	24.7	F	55.9
			A[1]	1.3[1]	A[1]	1.8[1]
58	White Avenue/First Street	La Verne	D	28.2	E	48.9
			A[1]	2.1[1]	A[1]	2.8[1]
59	White Avenue/Sierra Way	La Verne	B	11.2	C	17.9
			A[1]	0.4[1]	A[1]	0.5[1]
60	White Avenue/Arrow Highway	La Verne	C	26.2	C	30.6
61	D Street/Bonita Avenue	La Verne	A	8.1	B	10.1
62	White Avenue/Foothill Boulevard	La Verne	C	29.5	D	39.8
63	White Avenue/Bonita Avenue	La Verne	B	13.9	B	17.2
64	White Avenue/McKinley Avenue	La Verne	B	11.0	B	14.1
65	La Verne Avenue/Arrow Highway	La Verne	F	52.5	F	481.6
			B[1]	11.1[1]	F[1]	55.2[1]
66	Fulton Road/Bonita Avenue	Pomona	C	22.0	F	57.3
			A[1]	3.6[1]	A[1]	6.8[1]
67	Fulton Road/Arrow Highway	Pomona	C	22.0	D	34.2
			A[1]	2.2[1]	A[1]	2.1[1]
68	Garey Avenue/Bonita Avenue	Pomona	B	16.0	B	15.7
69	Garey Avenue/Santa Fe Street	Pomona	B	10.8	B	12.4
			A[1]	0.3[1]	A[1]	0.4[1]
70	Garey Avenue/Arrow Highway	Pomona	C	28.1	C	30.7
71	Towne Avenue/Bonita Avenue	Pomona	A	9.9	B	11.1
72	Towne Avenue/Towne Center Drive	Pomona	D	26.8	E	49.6
			A[1]	0.4[1]	A[1]	1.5[1]
73	Towne Avenue/Arrow Highway	Pomona	D	44.5	D	44.8
74	Garey Avenue/Harrison Avenue	Pomona	A	7.5	A	5.9
75	Indian Hill Boulevard/Bonita Avenue	Claremont	A	8.1	A	9.1
76	Indian Hill Boulevard/First Street	Claremont	B	10.9	B	15.4
77	Indian Hill Boulevard/Santa Fe Street	Claremont	B	11.2	B	13.1
			A[1]	0.5[1]	A[1]	0.8[1]
78	Indian Hill Boulevard/Arrow Highway	Claremont	C	21.1	D	37.2

Table 5-8: TSM Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
79	College Avenue/Bonita Avenue	Claremont	A	9.8	B	12.4
80	College Avenue/First Street	Claremont	B	10.7	B	12.5
81	College Avenue/Arrow Highway	Claremont	A	6.4	A	7.3
82	Claremont Boulevard/First Street	Claremont	A	3.3	A	5.9
83	Mills/Claremont/Arrow Highway	Claremont	B	14.9	B	19.8
84	Monte Vista Avenue/Arrow Route	Montclair	B	13.1	B	14.6
85	Monte Vista Avenue/Richton Street	Montclair	A	3.3	A	6.3
86	Monte Vista Avenue/Arrow Highway	Montclair	B	18.6	C	31.0
87	Fremont Avenue/Arrow Highway	Montclair	A	1.8	A	4.1
88	Central Avenue/Arrow Route	Montclair	B	12.1	C	20.5
89	Central Avenue/Richton Street/W 9th Street	Montclair	A	8.5	B	10.4
90	Central Avenue/Arrow Highway	Montclair	B	15.9	C	29.6

[1] Overall intersection LOS and delay at unsignalized intersections is reported to support the air quality analysis
[2] Average vehicle delay in seconds
[3] Shading shows intersections that, in 2035, would operate at LOS E or F under the TSM Alternative

Summary of Impacts

Using the threshold criteria presented in **Table 3-5**, intersection operating conditions under the TSM Alternative were compared with the No Build Alternative to identify adversely (NEPA) or significantly (CEQA) affected locations. **Table 5-9** and **Table 5-10** summarize intersection impacts. The intersections that are projected to be adversely affected are shaded.

As seen in **Table 5-9** and **Table 5-10**, four intersections are anticipated to be adversely/significantly impacted prior to any mitigation measures. They are:

- Glenwood Avenue at Route 66
- Monte Vista Avenue at Bonita Avenue
- A Street at Arrow Highway
- La Verne Avenue at Arrow Highway

The TSM alternative will not result in any significant impact to the other 86 intersections, though several locations are projected to operate at LOS F. Generally, LOS F is associated with back-ups and increased queue lengths and should be addressed by improving intersection operations prior to reaching this level of congestion. Since it is difficult to validate impacts at these extreme levels of congestion, it is recommended that the affected jurisdictions implement improvements at these congested intersections prior to the construction of this project.

Table 5-9: AM Peak Hour – Intersection Impacts Comparison (TSM and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 TSM		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
1	Barranca Avenue/Bennett Avenue	Glendora	B	21.1	C	21.0	-0.1	NO
2	Barranca Avenue/Foothill Boulevard	Glendora	B	12.1	B	12.0	-0.1	NO
3	Grand Avenue/Foothill Boulevard	Glendora	C	29.5	C	29.5	0.0	NO
4	Vermont Avenue East/Ada Avenue	Glendora	B	11.8	B	11.8	0.0	NO
5	Vermont Avenue/Route 66	Glendora	A	7.5	A	7.5	0.0	NO
6	Vermont Avenue/Foothill Boulevard	Glendora	A	7.7	A	7.7	0.0	NO
7	Vermont Avenue W/Ada Avenue	Glendora	B	11.1	B	11.1	0.0	NO
8	Glendora Avenue/Foothill Boulevard	Glendora	C	25.0	C	24.9	-0.1	NO
9	Glendora Avenue/Ada Avenue	Glendora	B	12.2	B	12.2	0.0	NO
10	Glendora Avenue/Route 66	Glendora	C	24.4	C	24.6	0.2	NO
11	Pasadena Avenue/Lemon Avenue	Glendora	A	7.9	A	7.9	0.0	NO
12	Pasadena Avenue/Route 66	Glendora	B	11.8	B	11.8	0.0	NO
13	Glenwood Avenue/Lemon Avenue	Glendora	A	9.9	A	9.9	0.0	NO
14	Glenwood Avenue/Route 66	Glendora	F	OFL	F	OFL	N/A	YES
15	Elwood Avenue/Lemon Avenue	Glendora	B	10.7	B	10.7	0.0	NO
16	Elwood Avenue/Route 66	Glendora	B	15.4	B	15.4	0.0	NO
17	Loraine Avenue/Lemon Avenue	Glendora	C	20.0	C	20.0	0.0	NO
18	Loraine Avenue/Route 66	Glendora	B	19.3	B	19.3	0.0	NO
19	Lone Hill Avenue/Auto Centre Drive	Glendora	B	15.6	B	15.6	0.0	NO
20	Barranca Avenue/Sierra Madre Avenue	Glendora	C	20.5	C	20.4	-0.1	NO
21	Glendora Avenue/Sierra Madre Avenue	Glendora	E	47.0	E	46.3	-0.7	NO
22	Lone Hill Avenue/Glendora Marketplace	Glendora	B	15.4	B	15.4	0.0	NO
23	Lone Hill Avenue/Gladstone Street	San Dimas	B	18.8	B	18.8	0.0	NO
24	SR-57 (southbound)/Arrow Highway	San Dimas	A	7.5	A	7.5	0.0	NO
25	SR-57 (northbound)/Arrow Highway & Bonita Avenue	San Dimas	C	26.2	C	26.3	0.1	NO
26	Eucla Avenue/Fifth Street	San Dimas	A	7.4	A	7.4	0.0	NO

Table 5-9: AM Peak Hour – Intersection Impacts Comparison (TSM and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 TSM		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
27	Eucla Avenue/Second Street	San Dimas	A	9.7	A	9.7	0.0	NO
28	Eucla Avenue/Bonita Avenue	San Dimas	A	4.7	A	4.7	0.0	NO
29	Eucla Avenue/Arrow Highway	San Dimas	A	8.4	A	8.4	0.0	NO
30	Acacia Street/Fifth Street	San Dimas	A	9.2	A	9.2	0.0	NO
31	Acacia Street/Second Street	San Dimas	A	9.1	A	9.1	0.0	NO
32	Acacia Street/Bonita Avenue	San Dimas	B	11.1	B	11.1	0.0	NO
33	Cataract Avenue/Second Street	San Dimas	A	9.9	A	9.9	0.0	NO
34	Cataract Avenue/Bonita Avenue	San Dimas	B	12.5	B	12.5	0.0	NO
35	Monte Vista Avenue/Second Street	San Dimas	A	9.3	A	9.3	0.0	NO
36	Monte Vista Avenue/Bonita Avenue	San Dimas	C	20.2	C	20.5	0.3	NO
37	San Dimas Avenue/Second Street	San Dimas	C	21.2	C	21.0	-0.2	NO
38	San Dimas Avenue/Bonita Avenue	San Dimas	B	12.2	B	12.2	0.0	NO
39	San Dimas Avenue/Arrow Highway	San Dimas	C	28.9	C	28.8	-0.1	NO
40	Walnut Avenue/Bonita Avenue	San Dimas	A	6.7	A	6.6	-0.1	NO
41	Walnut Avenue/Arrow Highway	San Dimas	B	12.0	B	12.0	0.0	NO
42	San Dimas Canyon Road/Bonita Avenue	San Dimas	A	7.3	A	7.3	0.0	NO
43	San Dimas Canyon Road/Arrow Highway	San Dimas	B	13.8	B	13.9	0.1	NO
44	Wheeler Avenue/Third Street	La Verne	C	16.5	C	16.5	0.0	NO
45	Wheeler Avenue/Arrow Highway	La Verne	B	14.8	B	14.8	0.0	NO
46	A Street/Third Street	La Verne	B	10.3	B	10.3	0.0	NO
47	A Street/First Street	La Verne	A	9.3	A	9.3	0.0	NO
48	A Street/Arrow Highway	La Verne	F	198.6	F	202.1	3.5	YES
49	D Street/Third Street	La Verne	A	9.6	A	9.6	0.0	NO
50	D Street/First Street	La Verne	A	9.7	A	9.7	0.0	NO
51	D Street/Arrow Highway	La Verne	A	5.9	A	5.9	0.0	NO
52	E Street/Third Street	La Verne	A	9.9	A	9.9	0.0	NO

Table 5-9: AM Peak Hour – Intersection Impacts Comparison (TSM and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 TSM		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
53	E Street/Second Street	La Verne	B	14.3	B	14.2	-0.1	NO
54	E Street/First Street	La Verne	B	11.4	B	11.4	0.0	NO
55	E Street/Arrow Highway	La Verne	C	22.5	C	22.5	0.0	NO
56	White Avenue/Third Street	La Verne	D	26.5	D	26.3	-0.2	NO
57	White Avenue/Second Street	La Verne	C	24.8	C	24.7	-0.1	NO
58	White Avenue/First Street	La Verne	D	28.4	D	28.2	-0.2	NO
59	White Avenue/Sierra Way	La Verne	B	11.2	B	11.2	0.0	NO
60	White Avenue/Arrow Highway	La Verne	C	26.3	C	26.2	-0.1	NO
61	D Street/Bonita Avenue	La Verne	A	8.1	A	8.1	0.0	NO
62	White Avenue/Foothill Boulevard	La Verne	C	29.6	C	29.5	-0.1	NO
63	White Avenue/Bonita Avenue	La Verne	B	14.0	B	13.9	-0.1	NO
64	White Avenue/McKinley Avenue	La Verne	B	11.0	B	11.0	0.0	NO
65	La Verne Avenue/Arrow Highway	La Verne	F	50.6	F	52.5	1.9	NO
66	Fulton Road/Bonita Avenue	Pomona	C	22.1	C	22.0	-0.1	NO
67	Fulton Road/Arrow Highway	Pomona	C	22.4	C	22.0	-0.4	NO
68	Garey Avenue/Bonita Avenue	Pomona	B	16.0	B	16.0	0.0	NO
69	Garey Avenue/Santa Fe Street	Pomona	B	10.8	B	10.8	0.0	NO
70	Garey Avenue/Arrow Highway	Pomona	C	28.3	C	28.1	-0.2	NO
71	Towne Avenue/Bonita Avenue	Pomona	A	9.9	A	9.9	0.0	NO
72	Towne Avenue/Towne Center Drive	Pomona	D	27.1	D	26.8	-0.3	NO
73	Towne Avenue/Arrow Highway	Pomona	D	44.5	D	44.5	0.0	NO
74	Garey Avenue/Harrison Avenue	Pomona	A	7.5	A	7.5	0.0	NO
75	Indian Hill Boulevard/Bonita Avenue	Claremont	A	8.1	A	8.1	0.0	NO
76	Indian Hill Boulevard/First Street	Claremont	B	10.9	B	10.9	0.0	NO
77	Indian Hill Boulevard/Santa Fe Street	Claremont	B	11.2	B	11.2	0.0	NO
78	Indian Hill Boulevard/Arrow Highway	Claremont	C	21.2	C	21.1	-0.1	NO

Table 5-9: AM Peak Hour – Intersection Impacts Comparison (TSM and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 TSM		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
79	College Avenue/Bonita Avenue	Claremont	A	9.9	A	9.8	-0.1	NO
80	College Avenue/First Street	Claremont	B	10.8	B	10.7	-0.1	NO
81	College Avenue/Arrow Highway	Claremont	A	6.3	A	6.4	0.1	NO
82	Claremont Boulevard/First Street	Claremont	A	3.3	A	3.3	0.0	NO
83	Mills/Claremont/Arrow Highway	Claremont	B	14.9	B	14.9	0.0	NO
84	Monte Vista Avenue/Arrow Route	Montclair	B	13.1	B	13.1	0.0	NO
85	Monte Vista Avenue/Richton Street	Montclair	A	3.3	A	3.3	0.0	NO
86	Monte Vista Avenue/Arrow Highway	Montclair	B	18.7	B	18.6	-0.1	NO
87	Fremont Avenue/Arrow Highway	Montclair	A	1.8	A	1.8	0.0	NO
88	Central Avenue/Arrow Route	Montclair	B	12.1	B	12.1	0.0	NO
89	Central Avenue/Richton Street/W 9th Street	Montclair	A	8.4	A	8.5	0.1	NO
90	Central Avenue/Arrow Highway	Montclair	B	15.9	B	15.9	0.0	NO

[1] Average vehicle delay in seconds
[2] Shading shows intersections that would be significantly impacted as a result of the TSM Alternative

Table 5-10: PM Peak Hour – Intersection Impacts Comparison (TSM and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 TSM		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
1	Barranca Avenue/Bennett Avenue	Glendora	B	12.4	B	12.4	0.0	NO
2	Barranca Avenue/Foothill Blvd	Glendora	A	8.4	A	8.4	0.0	NO
3	Grand Avenue/Foothill Blvd	Glendora	C	34.3	C	34.3	0.0	NO
4	Vermont Avenue E/Ada Avenue	Glendora	B	13.7	B	13.7	0.0	NO
5	Vermont Avenue/Route 66	Glendora	A	8.4	A	8.4	0.0	NO
6	Vermont Avenue/Foothill Blvd	Glendora	A	7.0	A	7.0	0.0	NO
7	Vermont Avenue W/Ada Avenue	Glendora	B	12.0	B	12.0	0.0	NO
8	Glendora Avenue/Foothill Blvd	Glendora	C	30.2	C	30.0	-0.2	NO
9	Glendora Avenue/Ada Avenue	Glendora	B	14.9	B	14.9	0.0	NO
10	Glendora Avenue/Route 66	Glendora	C	29.5	C	29.5	0.0	NO
11	Pasadena Avenue/Lemon Avenue	Glendora	A	7.8	A	7.8	0.0	NO
12	Pasadena Avenue/Route 66	Glendora	B	10.7	B	10.7	0.0	NO
13	Glenwood Avenue/Lemon Avenue	Glendora	B	11.2	B	11.2	0.0	NO
14	Glenwood Avenue/Route 66	Glendora	F	1097.3	F	OFL	N/A	YES
15	Elwood Avenue/Lemon Avenue	Glendora	B	10.9	B	10.9	0.0	NO
16	Elwood Avenue/Route 66	Glendora	B	16.2	B	16.3	0.1	NO
17	Loraine Avenue/Lemon Avenue	Glendora	B	13.7	B	13.7	0.0	NO
18	Loraine Avenue/Route 66	Glendora	B	11.8	B	11.8	0.0	NO
19	Lone Hill Avenue/Auto Centre Drive	Glendora	C	24.1	C	24.1	0.0	NO
20	Barranca Avenue/Sierra Madre Avenue	Glendora	C	15.8	C	15.8	0.0	NO
21	Glendora Avenue/Sierra Madre Avenue	Glendora	B	14.5	B	14.5	0.0	NO
22	Lone Hill Avenue/Glendora Marketplace	Glendora	C	23.1	C	23.2	0.1	NO
23	Lone Hill Avenue/Gladstone Street	San Dimas	C	25.5	C	25.4	-0.1	NO
24	SR-57 (southbound)/Arrow Highway	San Dimas	C	20.2	B	20.0	-0.2	NO
25	SR-57 (northbound)/Arrow Highway & Bonita Avenue	San Dimas	C	29.2	C	29.3	0.1	NO
26	Eucla Avenue/Fifth Street	San Dimas	A	7.4	A	7.4	0.0	NO

Table 5-10: PM Peak Hour – Intersection Impacts Comparison (TSM and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 TSM		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
27	Eucla Avenue/Second Street	San Dimas	B	10.5	B	10.4	-0.1	NO
28	Eucla Avenue/Bonita Avenue	San Dimas	A	8.1	A	8.1	0.0	NO
29	Eucla Avenue/Arrow Highway	San Dimas	B	11.8	B	11.8	0.0	NO
30	Acacia Street/Fifth Street	San Dimas	A	9.3	A	9.3	0.0	NO
31	Acacia Street/Second Street	San Dimas	A	9.2	A	9.2	0.0	NO
32	Acacia Street/Bonita Avenue	San Dimas	C	24.4	C	24.6	0.2	NO
33	Cataract Avenue/Second Street	San Dimas	B	10.0	B	10.0	0.0	NO
34	Cataract Avenue/Bonita Avenue	San Dimas	C	25.0	D	25.1	0.1	NO
35	Monte Vista Avenue/Second Street	San Dimas	A	9.9	A	9.8	-0.1	NO
36	Monte Vista Avenue/Bonita Avenue	San Dimas	F	119.5	F	123.7	4.2	YES
37	San Dimas Avenue/Second Street	San Dimas	E	36.2	E	35.8	-0.4	NO
38	San Dimas Avenue/Bonita Avenue	San Dimas	B	19.6	B	19.6	0.0	NO
39	San Dimas Avenue/Arrow Highway	San Dimas	D	48.9	D	48.4	-0.5	NO
40	Walnut Avenue/Bonita Avenue	San Dimas	B	13.9	B	13.8	-0.1	NO
41	Walnut Avenue/Arrow Highway	San Dimas	B	11.8	B	11.8	0.0	NO
42	San Dimas Canyon Rd/Bonita Avenue	San Dimas	A	9.0	A	9.0	0.0	NO
43	San Dimas Canyon Rd/Arrow Highway	San Dimas	B	12.1	B	12.2	0.1	NO
44	Wheeler Avenue/Third Street	La Verne	C	15.6	C	15.5	-0.1	NO
45	Wheeler Avenue/Arrow Highway	La Verne	B	12.9	B	12.9	0.0	NO
46	A Street/Third Street	La Verne	B	10.6	B	10.6	0.0	NO
47	A Street/First Street	La Verne	A	10.0	A	10.0	0.0	NO
48	A Street/Arrow Highway	La Verne	F	62.6	F	63.4	0.8	NO
49	D Street/Third Street	La Verne	B	13.5	B	13.5	0.0	NO
50	D Street/First Street	La Verne	B	11.5	B	11.5	0.0	NO
51	D Street/Arrow Highway	La Verne	A	6.2	A	6.2	0.0	NO
52	E Street/Third Street	La Verne	B	12.9	B	12.9	0.0	NO

Table 5-10: PM Peak Hour – Intersection Impacts Comparison (TSM and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 TSM		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
53	E Street/Second Street	La Verne	B	14.8	B	14.8	0.0	NO
54	E Street/First Street	La Verne	B	12.6	B	12.6	0.0	NO
55	E Street/Arrow Highway	La Verne	C	27.6	C	27.7	0.1	NO
56	White Avenue/Third Street	La Verne	F	78.9	F	78.6	-0.3	NO
57	White Avenue/Second Street	La Verne	F	56.4	F	55.9	-0.5	NO
58	White Avenue/First Street	La Verne	E	49.5	E	48.9	-0.6	NO
59	White Avenue/Sierra Way	La Verne	C	18.0	C	17.9	-0.1	NO
60	White Avenue/Arrow Highway	La Verne	C	30.6	C	30.6	0.0	NO
61	D Street/Bonita Avenue	La Verne	B	10.2	B	10.1	-0.1	NO
62	White Avenue/Foothill Blvd	La Verne	D	39.9	D	39.8	-0.1	NO
63	White Avenue/Bonita Avenue	La Verne	B	17.3	B	17.2	-0.1	NO
64	White Avenue/McKinley Avenue	La Verne	B	14.1	B	14.1	0.0	NO
65	La Verne Avenue/Arrow Highway	La Verne	F	471.1	F	481.6	10.5	YES
66	Fulton Rd/Bonita Avenue	Pomona	F	58.1	F	57.3	-0.8	NO
67	Fulton Rd/Arrow Highway	Pomona	D	33.9	D	34.2	0.3	NO
68	Garey Avenue/Bonita Avenue	Pomona	B	15.8	B	15.7	-0.1	NO
69	Garey Avenue/Santa Fe Street	Pomona	B	12.4	B	12.4	0.0	NO
70	Garey Avenue/Arrow Highway	Pomona	C	30.9	C	30.7	-0.2	NO
71	Towne Avenue/Bonita Avenue	Pomona	B	11.2	B	11.1	-0.1	NO
72	Towne Avenue/Towne Center Drive	Pomona	F	50.9	E	49.6	-1.3	NO
73	Towne Avenue/Arrow Highway	Pomona	D	45.1	D	44.8	-0.3	NO
74	Garey Avenue/Harrison Avenue	Pomona	A	6.0	A	5.9	-0.1	NO
75	Indian Hill Blvd/Bonita Avenue	Claremont	A	9.1	A	9.1	0.0	NO
76	Indian Hill Blvd/First Street	Claremont	B	15.5	B	15.4	-0.1	NO
77	Indian Hill Blvd/Santa Fe Street	Claremont	B	13.2	B	13.1	-0.1	NO
78	Indian Hill Blvd/Arrow Highway	Claremont	D	37.3	D	37.2	-0.1	NO

Table 5-10: PM Peak Hour – Intersection Impacts Comparison (TSM and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 TSM		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
79	College Avenue/Bonita Avenue	Claremont	B	12.5	B	12.4	-0.1	NO
80	College Avenue/First Street	Claremont	B	12.6	B	12.5	-0.1	NO
81	College Avenue/Arrow Highway	Claremont	A	7.3	A	7.3	0.0	NO
82	Claremont Blvd/First Street	Claremont	A	5.9	A	5.9	0.0	NO
83	Mills/Claremont/Arrow Highway	Claremont	B	19.8	B	19.8	0.0	NO
84	Monte Vista Avenue/Arrow Route	Montclair	B	14.6	B	14.6	0.0	NO
85	Monte Vista Avenue/Richton Street	Montclair	A	6.3	A	6.3	0.0	NO
86	Monte Vista Avenue/Arrow Highway	Montclair	C	31.0	C	31.0	0.0	NO
87	Fremont Avenue/Arrow Highway	Montclair	A	4.1	A	4.1	0.0	NO
88	Central Avenue/Arrow Route	Montclair	C	20.5	C	20.5	0.0	NO
89	Central Avenue/Richton Street/W 9th Street	Montclair	B	10.4	B	10.4	0.0	NO
90	Central Avenue/Arrow Highway	Montclair	C	29.6	C	29.6	0.0	NO

[1] Average vehicle delay in seconds
[2] Shading shows intersections that would be significantly impacted as a result of the TSM Alternative

Roadway Segment Traffic Operations

The same percentage changes from the No Build Alternative were also applied to each of the 35 study roadway segments in the TSM Alternative (**Table 5-11**). Similar to the No Build Alternative, all roadway segments would operate at LOS D or better, except North Towne Avenue between Arrow Highway and Bonita Avenue, which would operate at LOS E.

Table 5-11: TSM Alternative – Roadway Segment Average Daily Traffic Analysis (2035)

Roadway Segment	From	To	Capacity[1,2,3,4] (Vehicles/Day)	Volume (Vehicles/Day)	V/C	LOS
Glendora						
South Lone Hill Avenue	West Gladstone Street	Auto Centre Drive	32,000	28,111	0.88	D
South Loraine Avenue	Route 66	East Lemon Avenue	16,000	10,707	0.67	B
South Elwood Avenue	Route 66	East Lemon Avenue	12,000	2,746	0.23	A
South Glenwood Avenue	Route 66	East Lemon Avenue	12,000	2,835	0.24	A
South Pasadena Avenue	Route 66	East Lemon Avenue	12,000	2,683	0.22	A
South Glendora Avenue	Route 66	Foothill Boulevard	32,000	18,575	0.58	A
South Vermont Avenue	Route 66	West Foothill Boulevard	12,000	4,321	0.36	A
Grand Avenue	Route 66	West Leadora Avenue	32,000	14,404	0.45	A
Foothill Boulevard	Barranca Avenue	Glendora Avenue	16,000	12,294	0.77	C
North Barranca Avenue	West Foothill Boulevard	West Leadora Avenue	12,000	8,416	0.70	C
San Dimas						
San Dimas Canyon Road	Arrow Highway	Bonita Avenue	32,000	9,292	0.29	A
Walnut Avenue	East Arrow Highway	East Bonita Avenue	16,000	7,505	0.47	A
San Dimas Avenue	Arrow Highway	Bonita Avenue	32,000	12,291	0.38	A
Monte Vista Avenue	Commercial Street	Bonita Avenue	12,000	544	0.05	A
Cataract Avenue	Arrow Highway	First Street	12,000	3,072	0.26	A
Bonita Avenue	Eucla Avenue	San Dimas Avenue	32,000	15,832	0.49	A
Eucla Avenue	Bonita Avenue	Third Street	12,000	3,798	0.32	A
West Gladstone Street	Lone Hill Avenue	Amelia Avenue	32,000	15,784	0.49	A
La Verne						
White Avenue	Arrow Highway	Third Street	32,000	18,781	0.59	A
E Street	Arrow Highway	Third Street	16,000	6,916	0.43	A
D Street	Arrow Highway	Third Street	12,000	5,697	0.47	A
A Street	Arrow Highway	Third Street	12,000	1,339	0.11	A

Table 5-11: TSM Alternative – Roadway Segment Average Daily Traffic Analysis (2035)

Roadway Segment	From	To	Capacity[1,2,3,4] (Vehicles/Day)	Volume (Vehicles/Day)	V/C	LOS
Wheeler Avenue	Arrow Highway	Third Street	32,000	10,342	0.32	A
Pomona						
North Towne Avenue	Arrow Highway	Bonita Avenue	32,000	29,612	0.93	E
North Garey Avenue	Arrow Highway	Bonita Avenue	32,000	24,485	0.77	C
Fulton Road	Metrolink Driveway	—	16,000	1,574	0.10	A
Fulton Road	Arrow Highway	Bonita Avenue	16,000	1,914	0.12	A
Claremont						
South Mills Avenue/Claremont Blvd	Arrow Highway	East First Street	32,000	8,822	0.28	A
Indian Hill Boulevard	Arrow Highway	Bonita Avenue	32,000	21,993	0.69	B
College Avenue	East Arrow Highway	West Bonita Avenue	12,000	5,901	0.49	A
College Avenue	Green Street	—	12,000	6,466	0.54	A
Cambridge Avenue	West Arrow Highway	Bonita Avenue	12,000	5,333	0.44	A
First Street	Indian Hill Boulevard	College Avenue	24,000	8,573	0.36	A
Montclair						
Monte Vista Avenue	Richton Street	Arrow Highway	32,000	22,170	0.69	B
Central Avenue	Richton Street	Arrow Highway	32,000	27,169	0.85	D

[1] Capacity of 32,000 assumes 800 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.
[2] Capacity of 24,000 assumes 600 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.
[3] Capacity of 16,000 assumes 800 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.
[4] Capacity of 12,000 assumes 600 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.

5.2.3 Build Alternative

As noted earlier, the Azusa to Montclair Build LRT Alternative would extend the Gold Line Foothill Extension LRT Phase 2A from the Azusa/Citrus Station to the Montclair Station. This alternative would run through the cities of Glendora, San Dimas, La Verne, Pomona, Claremont and Montclair.

Shifts in Traffic Patterns

Similar to the TSM Alternative, adjustments to traffic flow patterns as a result of the Build Alternative were determined by using projections from the transportation model developed for this study. The 2035 No Build Alternative and the Build Alternative model data were compared to determine the effects of the Build Alternative on traffic flow and circulation patterns. The peak period link data from each model output were used in this analysis. The results for 2035 are shown in **Table 5-12**, which shows a decrease in traffic volumes for all six cities.

Table 5-12: Build Alternative – Average AM and PM Percentage Change in Traffic Volumes (2035)

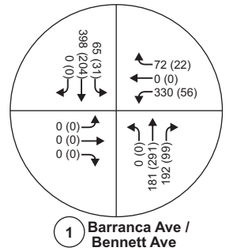
Glendora	-1.763%
San Dimas	-2.120%
La Verne	-0.579%
Pomona	-1.380%
Claremont	-1.514%
Montclair	-0.616%

The overall decrease in traffic volumes were applied to the 2035 No Build PM peak hour turning movement volumes to develop the future AM and PM peak hour turning movement traffic projections for the Build Alternative at each of the 90 study intersections.

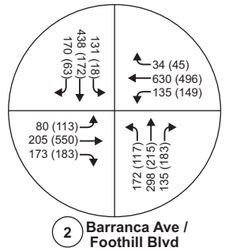
However, since intersections surrounding the stations would experience increased vehicular activity because of station operations, the turning movement volumes were adjusted to reflect this condition. Trips generated to and from the parking area at each station were determined and distributed along the roadway network to reflect station access conditions. The station access analysis assumed a parking occupancy of approximately 95 percent during both the AM and PM peak hours. Also, it was assumed that 70 percent of patrons arrive within the AM peak hour and that 65 percent leaves within the PM peak hour. In addition, it was assumed that 10 percent of vehicles accessing the station were kiss-and-ride patrons. A total of 5,150 parking spaces distributed among the six stations would be provided. **Table 5-13** shows the number of parking spaces for each station. **Figures 5-13 to 5-18** show the Build peak hour traffic volumes during the AM/PM peak hours.

Table 5-13: Build Alternative – Parking Space Provisions

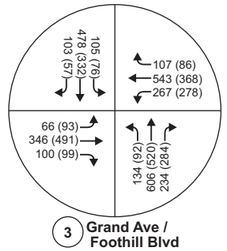
City	Parking Location(s)	Stalls
Glendora	South of tracks, east of South Vermont Avenue and west of Glendora Avenue	400
San Dimas	Parking structure on north side of Arrow Highway between San Dimas and Walnut Avenues and south of right-of-way.	400
La Verne	Parking garage in the irregular shaped property just to the south and east of the platform, north of Arrow Highway	600
Pomona	Parking structure at site west of Garey Avenue, south of Bonita Avenue and north of right-of-way.	1,050
Claremont	Structure built on the existing Metrolink surface parking lot east of College Avenue and north of right-of-way.	1,100
Montclair	Use existing parking at transit center, no structure.	1,600
	Total	**5,150**



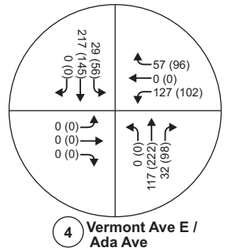
1 Barranca Ave / Bennett Ave



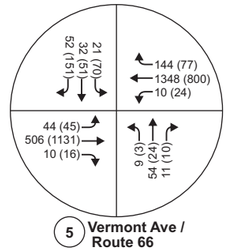
2 Barranca Ave / Foothill Blvd



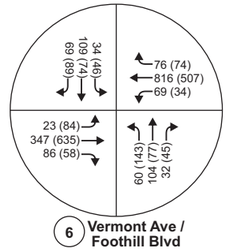
3 Grand Ave / Foothill Blvd



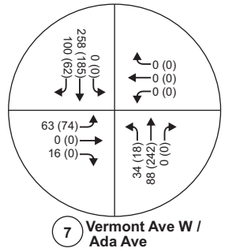
4 Vermont Ave E / Ada Ave



5 Vermont Ave / Route 66



6 Vermont Ave / Foothill Blvd



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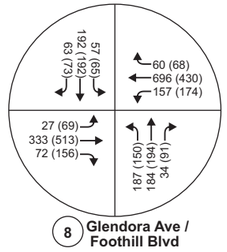
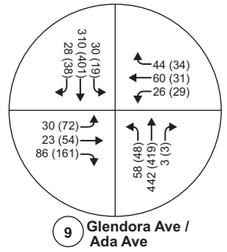


8 Glendora Ave / Foothill Blvd



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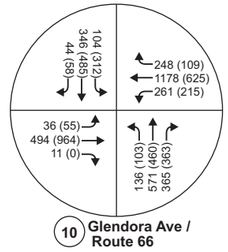

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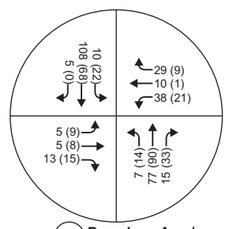
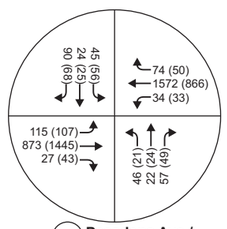


11 Pasadena Ave / Lemon Ave



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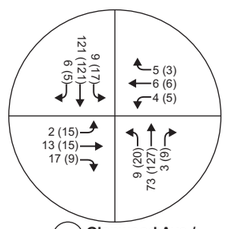
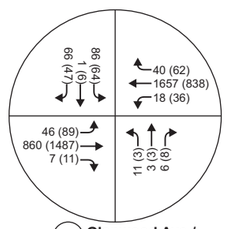
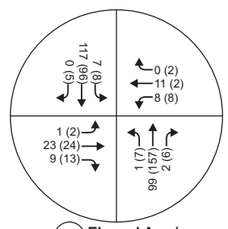


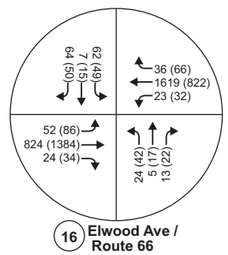
13 Glenwood Ave / Lemon Ave



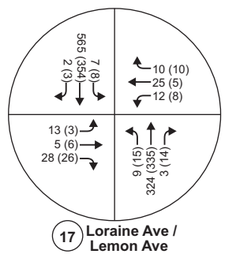
14 Glenwood Ave / Route 66



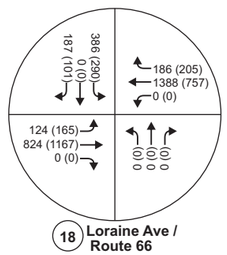
15 Elwood Ave / Lemon Ave



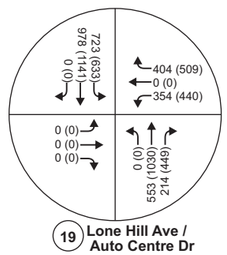
16 Elwood Ave / Route 66



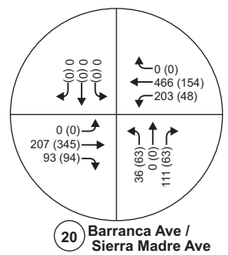
17 Loraine Ave / Lemon Ave



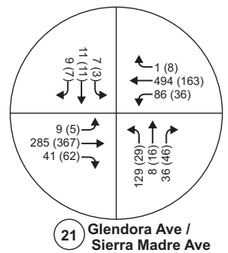
18 Loraine Ave / Route 66



19 Lone Hill Ave / Auto Centre Dr



20 Barranca Ave / Sierra Madre Ave



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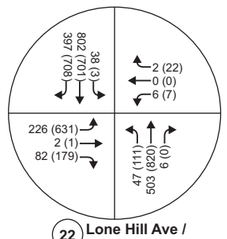
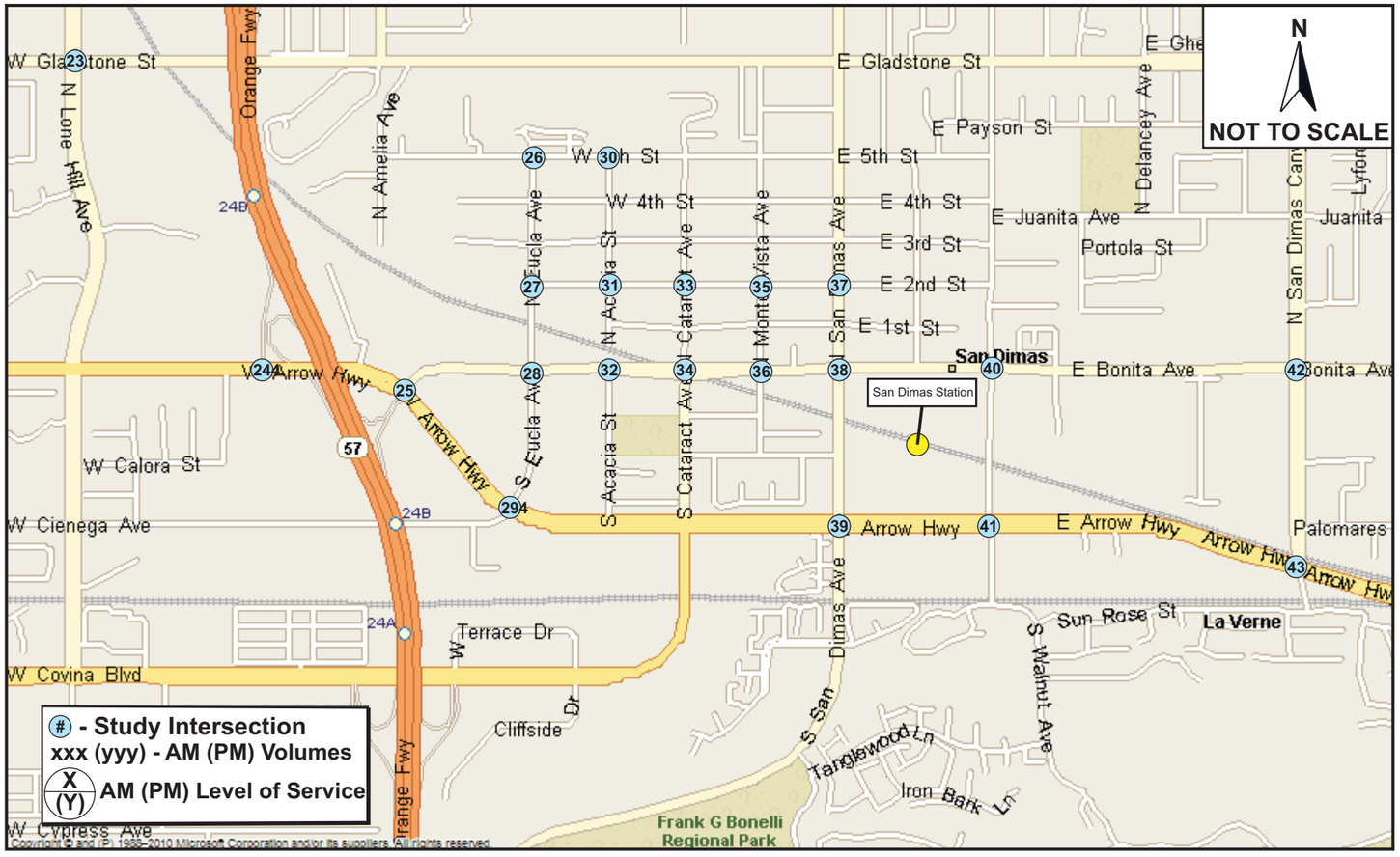
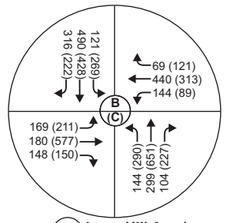


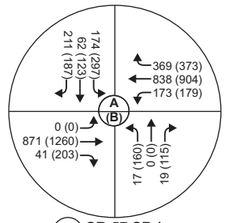
22 Lone Hill Ave / Glendora Marketplace

INTUEOR MAXIMIZING VALUE	Metro Gold Line Foothill Extension – Azusa To Montclair	Figure 5-13: Build (2035) AM/PM Peak Hour Traffic Volumes: Glendora

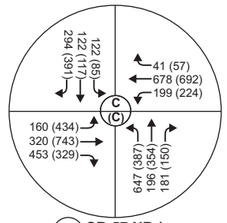




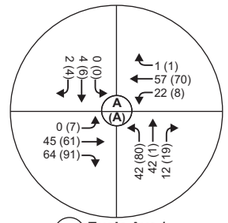
23 Lone Hill Ave / Gladstone St



24 SR-57 SB / Arrow Hwy



25 SR-57 NB / Arrow Hwy & Bonita Ave



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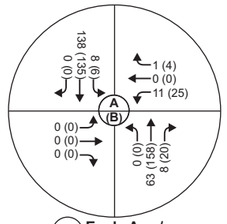
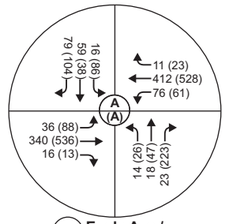


27 Eucla Ave / Second St



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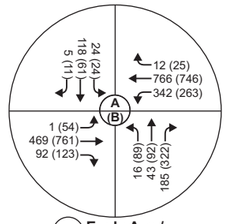

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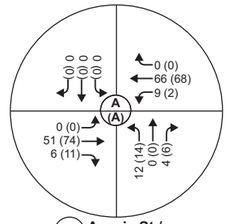
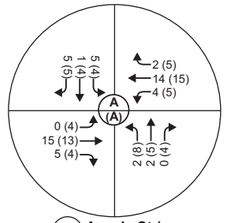


30 Acacia St / Fifth St



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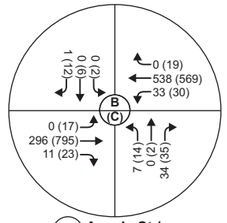

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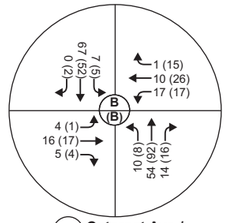
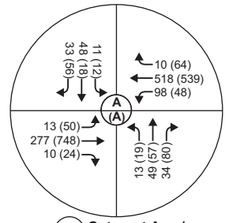
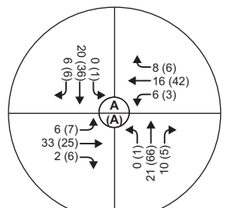


33 Cataract Ave / Second St



34 Cataract Ave / Bonita Ave



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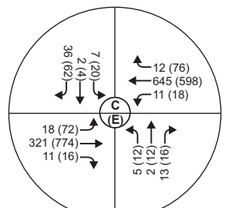

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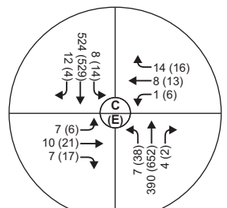

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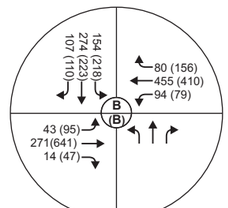
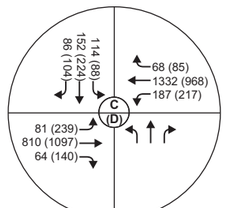
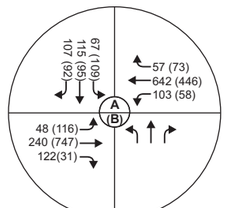


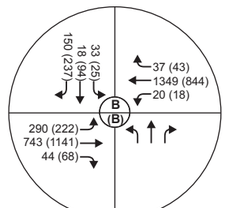
38 San Dimas Ave / Bonita Ave



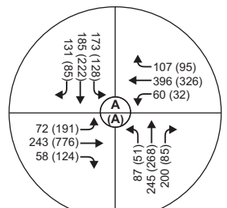
39 San Dimas Ave / Arrow Hwy



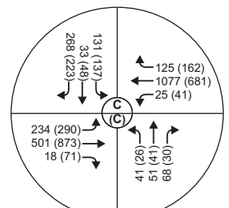
40 Walnut Ave / Bonita Ave



41 Walnut Ave / Arrow Hwy



42 San Dimas Canyon Rd / Bonita Ave

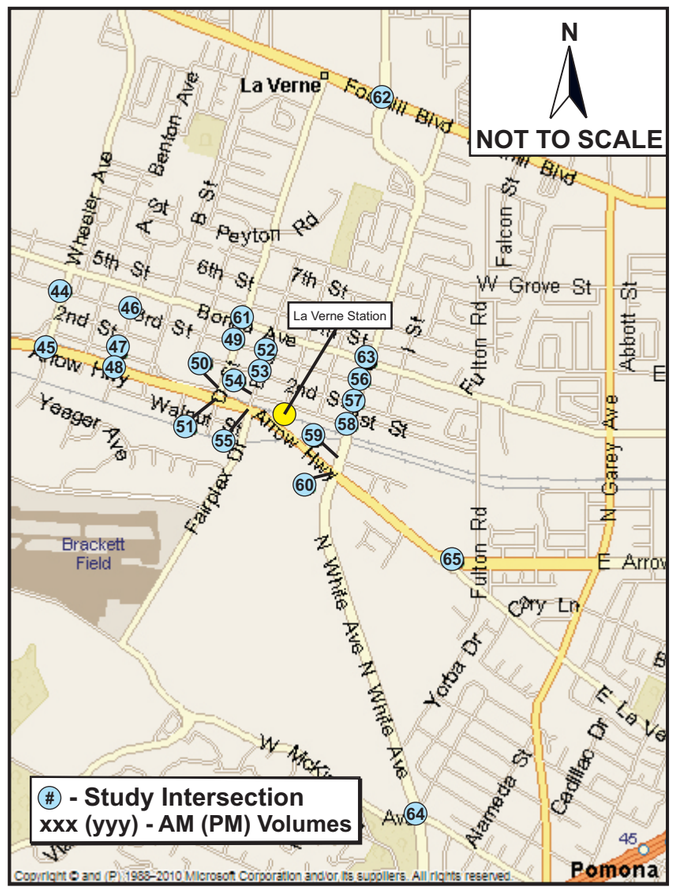


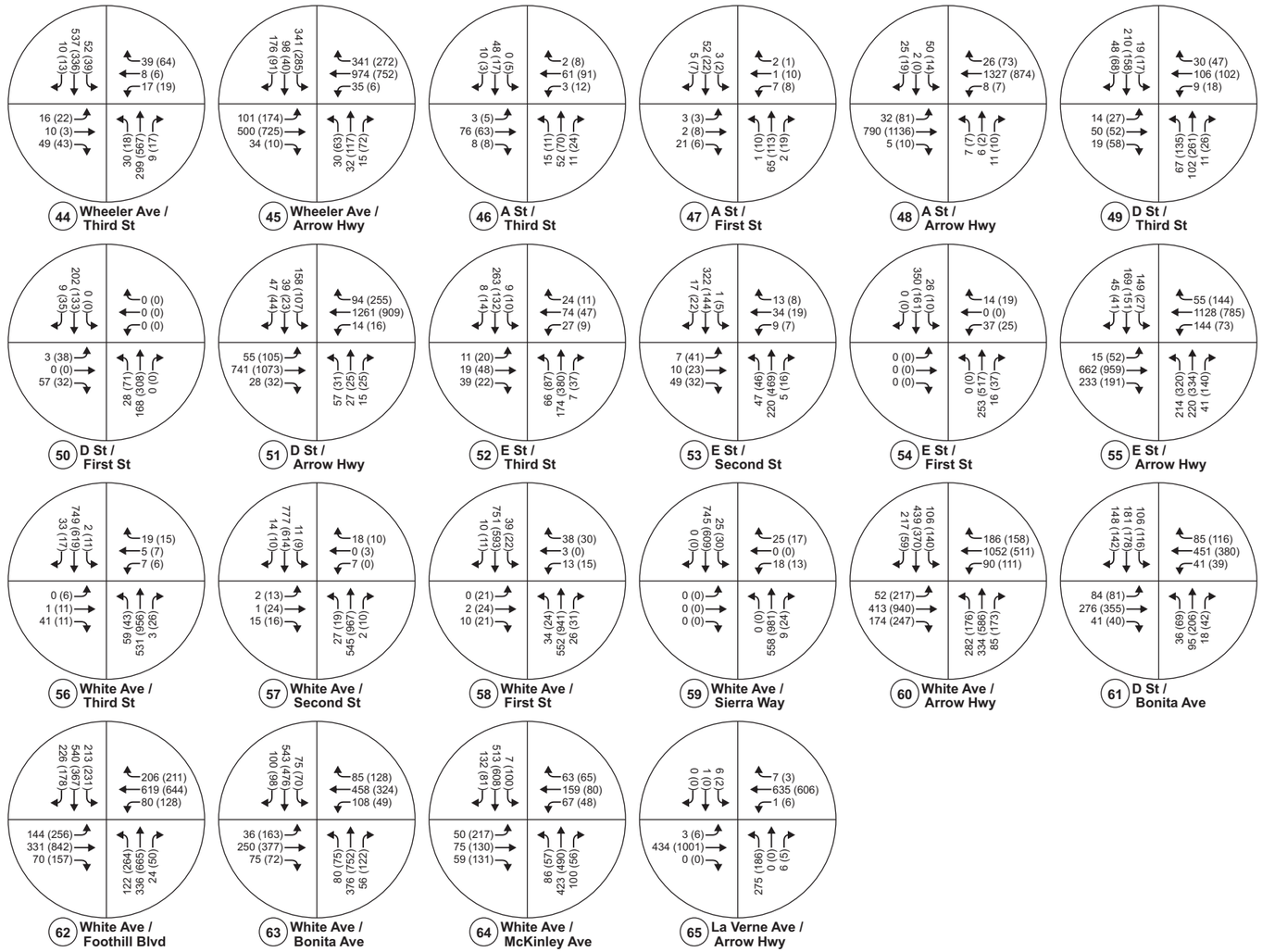
43 San Dimas Canyon Rd / Arrow Hwy

INTUEOR MAXIMIZING VALUE

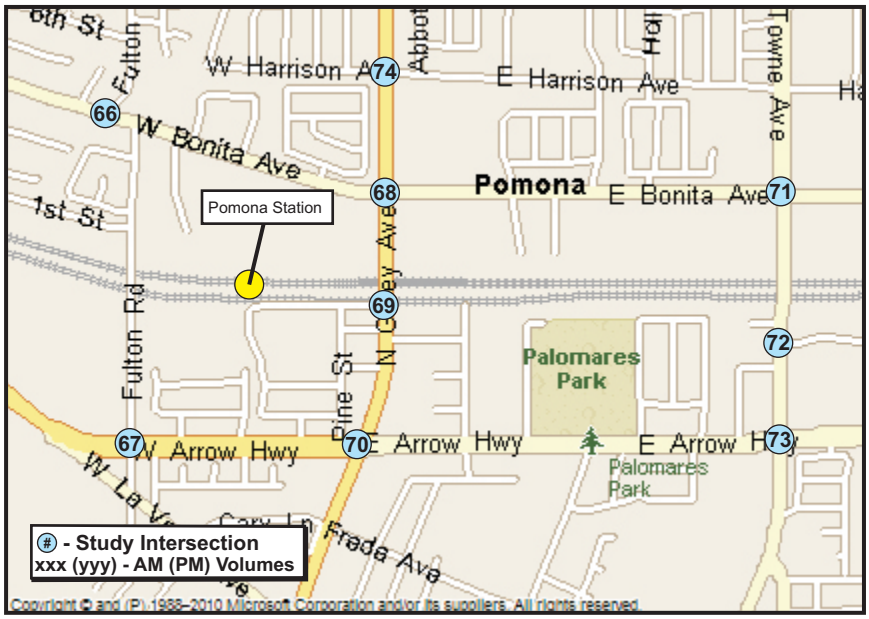
Metro Gold Line Foothill Extension – Azusa To Montclair

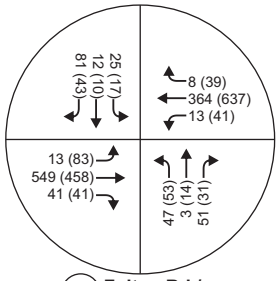
Figure 5-14: Build (2035) AM/PM Peak Hour Traffic Volumes: San Dimas



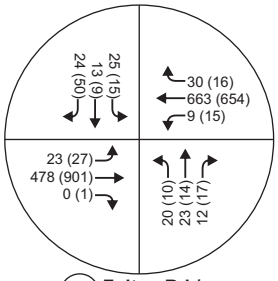


INTUEOR MAXIMIZING VALUE	Metro Gold Line Foothill Extension – Azusa To Montclair	Figure 5-15: Build (2035) AM/PM Peak Hour Traffic Volumes: La Verne

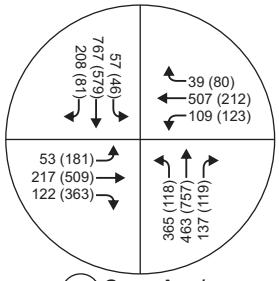




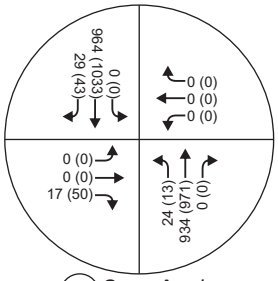
66 Fulton Rd / Bonita Ave



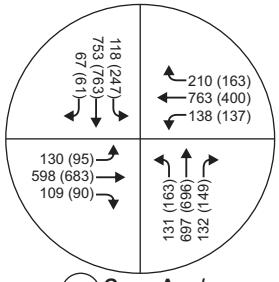
67 Fulton Rd / Arrow Hwy



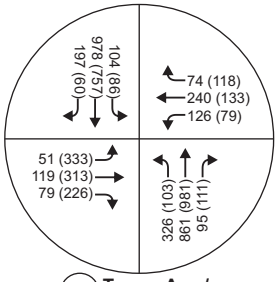
68 Garey Ave / Bonita Ave



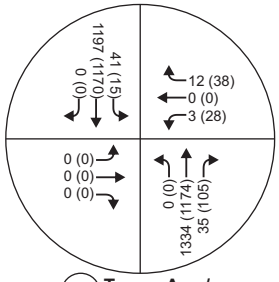
69 Garey Ave / Santa Fe St



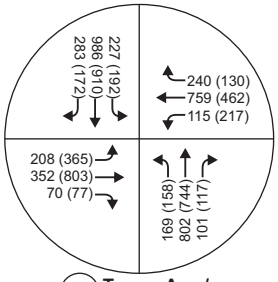
70 Garey Ave / Arrow Hwy



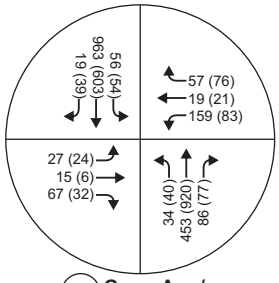
71 Towne Ave / Bonita Ave



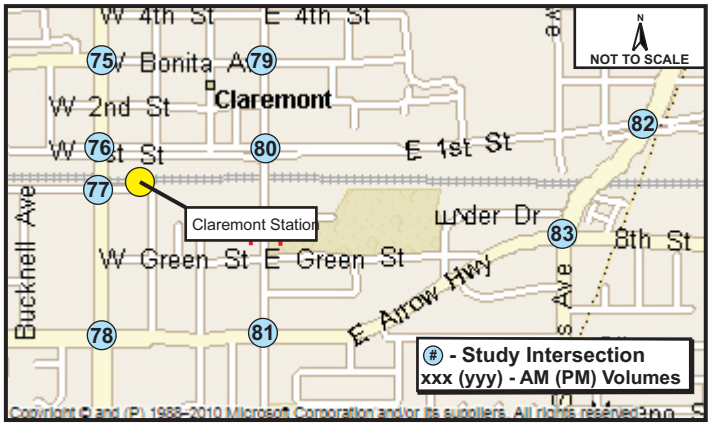
72 Towne Ave / Towne Center Dr

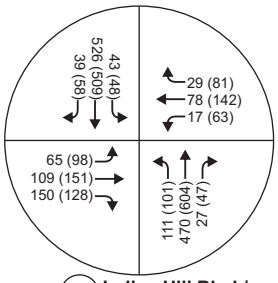


73 Towne Ave / Arrow Hwy

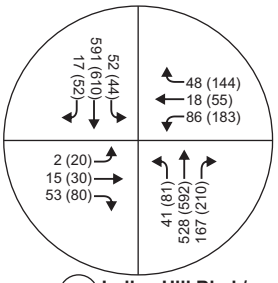


74 Garey Ave / Harrison Ave

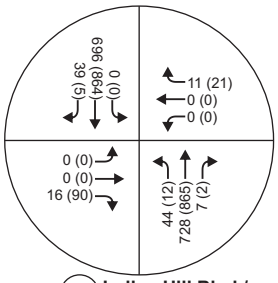




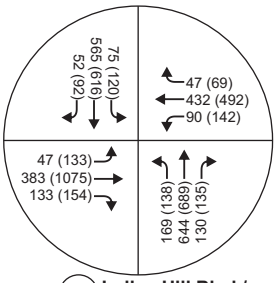
75 Indian Hill Blvd / Bonita Ave



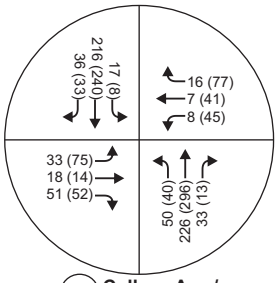
76 Indian Hill Blvd / First St



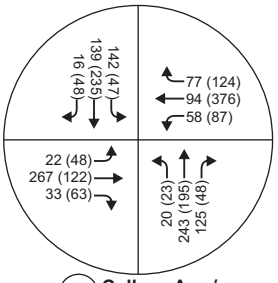
77 Indian Hill Blvd / Santa Fe St



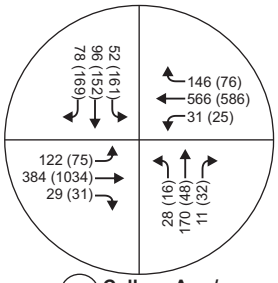
78 Indian Hill Blvd / Arrow Hwy



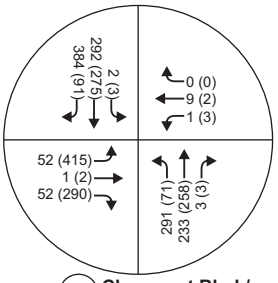
79 College Ave / Bonita Ave



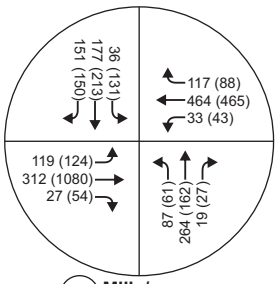
80 College Ave / First St



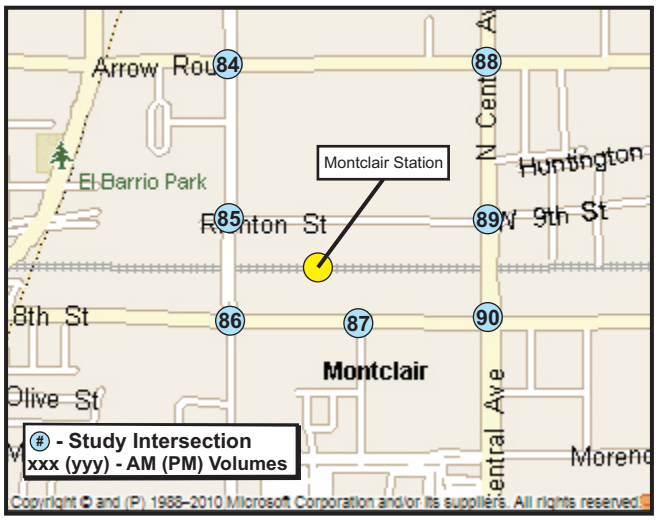
81 College Ave / Arrow Hwy



82 Claremont Blvd / First St



83 Mills/ Claremont / Arrow Hwy


Arrow Rou
84
88
N Cent
Montclair Station
El Barrio Park
Huntington
Richton St
85
89
W 9th St
8th St
86
87
90
Montclair
Olive St
Central Ave
Moreno
- Study Intersection
xxx (yyy) - AM (PM) Volumes
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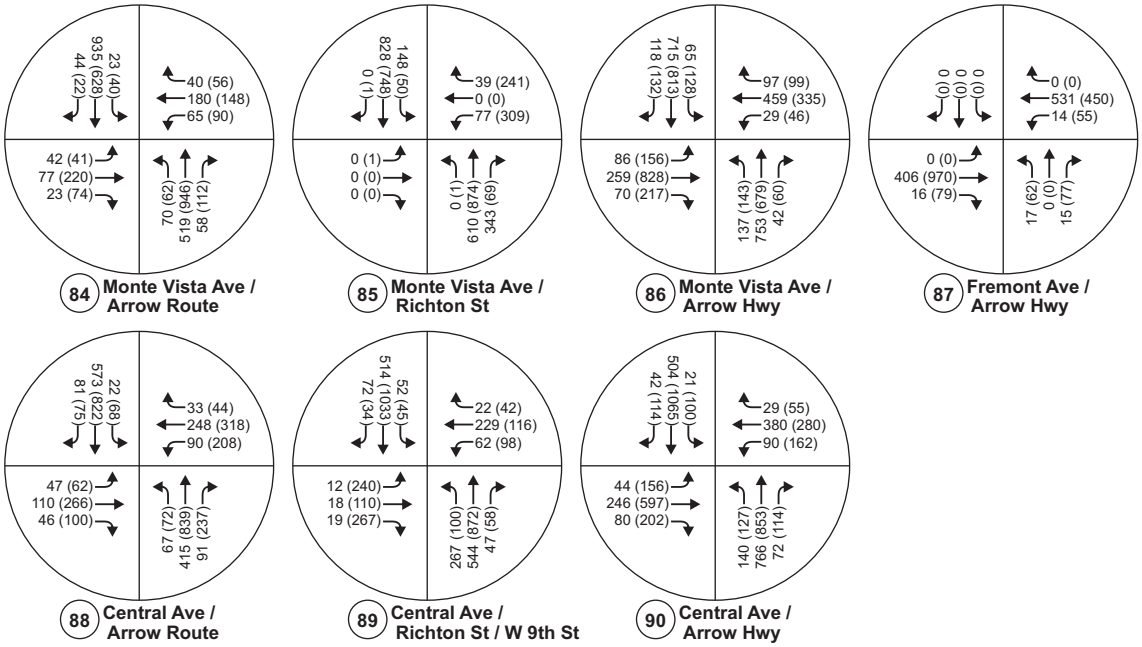
84 Monte Vista Ave / Arrow Route
935 (628) 44 (22) 23 (40)
40 (56) 180 (148) 65 (90)
42 (41) 77 (220) 23 (74)
70 (62) 519 (946) 58 (112)
85 Monte Vista Ave / Richton St
828 (748) 0 (1) 148 (50)
39 (241) 0 (0) 77 (309)
0 (1) 0 (0) 0 (0)
0 (1) 610 (874) 343 (69)
86 Monte Vista Ave / Arrow Hwy
715 (813) 118 (132) 65 (128)
97 (99) 459 (335) 29 (46)
86 (156) 259 (828) 70 (217)
137 (143) 753 (679) 42 (60)
87 Fremont Ave / Arrow Hwy
0 (0) 0 (0) 0 (0)
0 (0) 531 (450) 14 (55)
0 (0) 406 (970) 16 (79)
17 (62) 0 (0) 15 (77)
88 Central Ave / Arrow Route
573 (822) 81 (75) 22 (68)
33 (44) 248 (318) 90 (208)
47 (62) 110 (266) 46 (100)
67 (72) 415 (839) 91 (237)
89 Central Ave / Richton St / W 9th St
514 (1033) 72 (34) 52 (45)
22 (42) 229 (116) 62 (98)
12 (240) 18 (110) 19 (267)
267 (100) 544 (872) 47 (58)
90 Central Ave / Arrow Hwy
504 (1065) 42 (114) 21 (100)
29 (55) 380 (280) 90 (162)
44 (156) 246 (597) 80 (202)
140 (127) 766 (853) 72 (114)

In addition, two intersections—Foothill Boulevard/Grand Avenue, and Cataract Avenue/Bonita Avenue—are configured such that the LRT tracks would cross the intersection diagonally. At these locations, new traffic signals would be provided or existing signals would be modified. As a result, Cataract Avenue/Bonita Avenue would become signalized. For both intersections, an exclusive signal phase for the LRT would be provided, whereby all other traffic movements would be stopped. Based on the following assumptions, a hold phase of 80 seconds was added to the cycle to represent the worst-case train operating condition.

- Operation of two-car trains at 10-minute headway per direction (train length is assumed to be approximately 180 feet).
- A maximum operating speed of 55 miles per hour.
- An average diagonal cross-street width of about 150 feet.
- Additional five Metrolink commuter trains (four in the eastbound direction and one in the westbound direction) per hour in the shared project corridor in the Cities of La Verne, Pomona, Claremont and Montclair.

Summary of Improvements as Part of the Project

The following traffic improvements would be part of this project and are included in the analysis of the 2035 Build Alternative. These improvements are required for safe operation of the LRT system at-grade crossing locations.

San Dimas

- **Cataract Avenue/Bonita Avenue –** Signalize this intersection as part of the project.
- **San Dimas Canyon Road/Arrow Highway –** Provide a right-turn pocket for the westbound approach from Arrow Highway. Convert the eastbound and westbound movement phase on Arrow Highway from permissive/protected to protected only.

La Verne

- **Wheeler Avenue/Arrow Highway –** Provide a right-turn pocket for the westbound approach from Arrow Highway. Convert the eastbound and westbound movement phase on Arrow Highway from permissive/protected to protected only.
- **A Street/Arrow Highway –** Signalize this intersection as part of the project. Provide a right-turn pocket for the westbound approach from Arrow Highway.
- **D Street/Arrow Highway –** Provide a right-turn pocket for the westbound approach from Arrow Highway. Convert the eastbound and westbound movement phase on Arrow Highway from permissive/protected to protected only.
- **E Street/Arrow Highway –** Provide a right-turn pocket for the westbound approach from Arrow Highway.

Intersection Traffic Conditions

Future traffic operations were evaluated by incorporating the volumes, roadway geometrics, type of control, and signal phasing using the Synchro software (**Table 5-14**). Detailed worksheets are attached as **Appendix E**. As indicated in the table, four intersections in the AM peak hour and 11 intersections in the PM peak hour are anticipated to operate at LOS E or F; the remaining intersections would operate at LOS D or better.

Table 5-14: Build Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
1	Barranca Avenue/Bennett Avenue	Glendora	C	20.9	B	12.4
			A[1]	7.3[1]	A[1]	1.8[1]
2	Barranca Avenue/Foothill Boulevard	Glendora	B	11.1	A	8.4
3	Grand Avenue/Foothill Boulevard	Glendora	C	29.9	C	28.5
4	Vermont Avenue East/Ada Avenue	Glendora	B	13.3	C	15.3
			A[1]	4.7[1]	A[1]	4.9[1]
5	Vermont Avenue/Route 66	Glendora	A	7.5	A	9.1
6	Vermont Avenue/Foothill Boulevard	Glendora	A	7.5	A	7.7
7	Vermont Avenue West/Ada Avenue	Glendora	B	12.3	B	13.2
			A[1]	2.3[1]	A[1]	2.0[1]
8	Glendora Avenue/Foothill Boulevard	Glendora	C	28.1	C	28.1
9	Glendora Avenue/Ada Avenue	Glendora	B	12.3	C	15.3
10	Glendora Avenue/Route 66	Glendora	C	22.8	C	32.4
11	Pasadena Avenue/Lemon Avenue	Glendora	A	7.9	A	7.8
12	Pasadena Avenue/Route 66	Glendora	B	12.4	B	11.2
13	Glenwood Avenue/Lemon Avenue	Glendora	B	10.1	B	11.3
			A[1]	2.3[1]	A[1]	2.6[1]
14	Glenwood Avenue/Route 66	Glendora	F	OFL	F	OFL
			F[1]	548.2[1]	F[1]	443.2[1]
15	Elwood Avenue/Lemon Avenue	Glendora	B	10.8	B	11.0
			A[1]	2.2[1]	A[1]	2.0[1]
16	Elwood Avenue/Route 66	Glendora	B	15.5	B	18.1
17	Loraine Avenue/Lemon Avenue	Glendora	C	19.8	B	13.7
			A[1]	1.8[1]	A[1]	1.2[1]
18	Loraine Avenue/Route 66	Glendora	B	19.1	B	11.6
19	Lone Hill Avenue/Auto Centre Drive	Glendora	B	15.4	C	22.7
20	Barranca Avenue/Sierra Madre Avenue	Glendora	C	19.8	C	15.5
			A[1]	4.2[1]	A[1]	3.1[1]
21	Glendora Avenue/Sierra Madre Avenue	Glendora	E	43.3	B	14.2
22	Lone Hill Avenue/Glendora Marketplace	Glendora	B	15.2	C	23.1
23	Lone Hill Avenue/Gladstone Street	San Dimas	B	18.6	C	25.5
24	SR-57 (southbound)/Arrow Highway	San Dimas	A	7.4	B	19.4
25	SR-57 (northbound)/Arrow Highway & Bonita Avenue	San Dimas	C	27.5	C	29.1

Table 5-14: Build Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
26	Eucla Avenue/Fifth Street	San Dimas	A	7.4	A	7.4
27	Eucla Avenue/Second Street	San Dimas	A	9.8	B	10.5
			A[1]	0.8[1]	A[1]	1.0[1]
28	Eucla Avenue/Bonita Avenue	San Dimas	A	4.8	A	8.0
29	Eucla Avenue/Arrow Highway	San Dimas	A	8.8	B	11.7
30	Acacia Street/Fifth Street	San Dimas	A	9.2	A	9.3
			A[1]	1.5[1]	A[1]	1.1[1]
31	Acacia Street/Second Street	San Dimas	A	9.1	A	9.1
			A[1]	7.5[1]	A[1]	6.7[1]
32	Acacia Street/Bonita Avenue	San Dimas	B	10.6	C	24.4
			A[1]	0.8[1]	A[1]	1.4[1]
33	Cataract Avenue/Second Street	San Dimas	B	10.0	B	10.3
			A[1]	8.1[1]	A[1]	7.5[1]
34	Cataract Avenue/Bonita Avenue	San Dimas	A	6.1	A	5.2
35	Monte Vista Avenue/Second Street	San Dimas	A	9.5	A	9.9
			A[1]	5.2[1]	A[1]	4.4[1]
36	Monte Vista Avenue/Bonita Avenue	San Dimas	C	17.7	E	47.9
			A[1]	1.3[1]	A[1]	3.5[1]
37	San Dimas Avenue/Second Street	San Dimas	C	20.5	E	38.2
			A[1]	1.0[1]	A[1]	2.6[1]
38	San Dimas Avenue/Bonita Avenue	San Dimas	B	12.2	B	18.5
39	San Dimas Avenue/Arrow Highway	San Dimas	C	29.8	D	48.3
40	Walnut Avenue/Bonita Avenue	San Dimas	A	6.6	B	14.6
41	Walnut Avenue/Arrow Highway	San Dimas	B	16.7	B	13.2
42	San Dimas Canyon Road/Bonita Avenue	San Dimas	A	7.3	A	9.0
43	San Dimas Canyon Road/Arrow Highway	San Dimas	C	27.6	C	28.1
44	Wheeler Avenue/Third Street	La Verne	C	16.7	C	15.7
			A[1]	2.9[1]	A[1]	2.7[1]
45	Wheeler Avenue/Arrow Highway	La Verne	D	50.6	D	37.8
46	A Street/Third Street	La Verne	B	10.4	B	10.8
			A[1]	5.0[1]	A[1]	4.8[1]
47	A Street/First Street	La Verne	A	9.5	B	10.0
			A[1]	2.2[1]	A[1]	2.1[1]
48	A Street/Arrow Highway	La Verne	A	9.8	D	39.9
49	D Street/Third Street	La Verne	B	10.2	C	15.4
50	D Street/First Street	La Verne	A	9.9	B	12.7
			A[1]	1.8[1]	A[1]	2.6[1]
51	D Street/Arrow Highway	La Verne	C	22.2	C	30.4
52	E Street/Third Street	La Verne	B	10.6	C	16.0
53	E Street/Second Street	La Verne	C	15.6	C	16.9
			A[1]	2.9[1]	A[1]	3.3[1]

Table 5-14: Build Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
54	E Street/First Street	La Verne	B	13.6	B	13.7
			A[1]	1.3[1]	A[1]	0.9[1]
55	E Street/Arrow Highway	La Verne	C	27.3	C	33.3
56	White Avenue/Third Street	La Verne	E	39.8	F	95.9
			A[1]	2.3[1]	A[1]	3.9[1]
57	White Avenue/Second Street	La Verne	D	28.0	F	121.4
			A[1]	1.4[1]	A[1]	4.6[1]
58	White Avenue/First Street	La Verne	D	33.1	F	142.2
			A[1]	2.2[1]	A[1]	7.7[1]
59	White Avenue/Sierra Way	La Verne	B	14.8	C	19.6
			A[1]	0.6[1]	A[1]	0.5[1]
60	White Avenue/Arrow Highway	La Verne	C	31.9	C	31.7
61	D Street/Bonita Avenue	La Verne	A	8.2	B	10.8
62	White Avenue/Foothill Boulevard	La Verne	C	29.4	D	39.6
63	White Avenue/Bonita Avenue	La Verne	B	14.3	B	17.9
64	White Avenue/McKinley Avenue	La Verne	B	10.8	B	14.1
65	La Verne Avenue/Arrow Highway	La Verne	F	141.3	F	652.8
			D[1]	29.2[1]	F[1]	68.8[1]
66	Fulton Road/Bonita Avenue	Pomona	D	29.4	F	137.4
			A[1]	4.4[1]	B[1]	11.7[1]
67	Fulton Road/Arrow Highway	Pomona	D	27.4	E	44.5
			A[1]	2.6[1]	A[1]	2.4[1]
68	Garey Avenue/Bonita Avenue	Pomona	C	32.6	B	18.5
69	Garey Avenue/Santa Fe Street	Pomona	A	9.4	B	13.2
			A[1]	0.2[1]	A[1]	0.4[1]
70	Garey Avenue/Arrow Highway	Pomona	C	29.9	C	34.5
71	Towne Avenue/Bonita Avenue	Pomona	B	18.5	B	15.6
72	Towne Avenue/Towne Center Drive	Pomona	D	28.7	E	49.0
			A[1]	0.4[1]	A[1]	1.3[1]
73	Towne Avenue/Arrow Highway	Pomona	D	45.8	D	46.7
74	Garey Avenue/Harrison Avenue	Pomona	A	7.9	A	5.9
75	Indian Hill Boulevard/Bonita Avenue	Claremont	A	8.1	A	9.1
76	Indian Hill Boulevard/First Street	Claremont	B	11.1	B	18.7
77	Indian Hill Boulevard/Santa Fe Street	Claremont	B	11.2	B	13.2
			A[1]	0.5[1]	A[1]	0.8[1]
78	Indian Hill Boulevard/Arrow Highway	Claremont	C	21.1	D	37.3
79	College Avenue/Bonita Avenue	Claremont	B	10.4	B	14.2
80	College Avenue/First Street	Claremont	C	15.2	E	35.6
81	College Avenue/Arrow Highway	Claremont	A	7.4	A	9.5
82	Claremont Boulevard/First Street	Claremont	A	4.0	B	10.2
83	Mills/Claremont/Arrow Highway	Claremont	B	18.2	C	25.2

Table 5-14: Build Alternative – Intersection Level of Service (2035)[3]

#	Intersection	Jurisdiction	AM		PM	
			LOS	Delay[2]	LOS	Delay[2]
84	Monte Vista Avenue/Arrow Route	Montclair	B	13.3	B	14.7
85	Monte Vista Avenue/Richton Street	Montclair	A	5.4	A	10.0
86	Monte Vista Avenue/Arrow Highway	Montclair	B	19.1	C	32.9
87	Fremont Avenue/Arrow Highway	Montclair	A	1.7	A	4.1
88	Central Avenue/Arrow Route	Montclair	B	13.0	C	21.8
89	Central Avenue/Richton Street/West 9th Street	Montclair	B	13.1	B	15.2
90	Central Avenue/Arrow Highway	Montclair	B	15.8	C	31.3

[1] Overall intersection LOS and delay at unsignalized intersections is reported to support the air quality analysis
[2] Average vehicle delay in seconds
[3] Shading shows intersections that, in 2035, would operate at LOS E or F under the Build Alternative

Summary of Impacts

Using the thresholds presented earlier in **Table 3-5**, the intersection operating conditions under the Build Alternative were compared with the No Build Alternative to identify adversely (NEPA) and significantly affected (CEQA) locations. **Table 5-15** and **Table 5-16** show that 10 intersections in the AM peak hour are anticipated to be adversely (NEPA) and significantly affected (CEQA), 12 intersections in the PM peak hour would be adversely (NEPA) and significantly affected (CEQA), and some intersections would improve.

Table 5-15: AM Peak Hour Intersection Impacts Comparison (Build and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 Build		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
1	Barranca Avenue/Bennett Avenue	Glendora	B	21.1	C	20.9	-0.2	NO
2	Barranca Avenue/Foothill Boulevard	Glendora	B	12.1	B	11.1	-1.0	NO
3	Grand Avenue/Foothill Boulevard	Glendora	C	29.5	C	29.9	0.4	NO
4	Vermont Avenue East/Ada Avenue	Glendora	B	11.8	B	13.3	1.5	NO
5	Vermont Avenue/Route 66	Glendora	A	7.5	A	7.5	0.0	NO
6	Vermont Avenue/Foothill Boulevard	Glendora	A	7.7	A	7.5	-0.2	NO
7	Vermont Avenue W/Ada Avenue	Glendora	B	11.1	B	12.3	1.2	NO
8	Glendora Avenue/Foothill Boulevard	Glendora	C	25.0	C	28.1	3.1	NO
9	Glendora Avenue/Ada Avenue	Glendora	B	12.2	B	12.3	0.1	NO
10	Glendora Avenue/Route 66	Glendora	C	24.4	C	22.8	-1.6	NO
11	Pasadena Avenue/Lemon Avenue	Glendora	A	7.9	A	7.9	0.0	NO
12	Pasadena Avenue/Route 66	Glendora	B	11.8	B	12.4	0.6	NO
13	Glenwood Avenue/Lemon Avenue	Glendora	A	9.9	B	10.1	0.2	NO
14	Glenwood Avenue/Route 66	Glendora	F	OFL	F	OFL	N/A	YES
15	Elwood Avenue/Lemon Avenue	Glendora	B	10.7	B	10.8	0.1	NO
16	Elwood Avenue/Route 66	Glendora	B	15.4	B	15.5	0.1	NO
17	Loraine Avenue/Lemon Avenue	Glendora	C	20.0	C	19.8	-0.2	NO
18	Loraine Avenue/Route 66	Glendora	B	19.3	B	19.1	-0.2	NO
19	Lone Hill Avenue/Auto Centre Drive	Glendora	B	15.6	B	15.4	-0.2	NO
20	Barranca Avenue/Sierra Madre Avenue	Glendora	C	20.5	C	19.8	-0.7	NO
21	Glendora Avenue/Sierra Madre Avenue	Glendora	E	47.0	E	43.3	-3.7	NO
22	Lone Hill Avenue/Glendora Marketplace	Glendora	B	15.4	B	15.2	-0.2	NO
23	Lone Hill Avenue/Gladstone Street	San Dimas	B	18.8	B	18.6	-0.2	NO
24	SR-57 (southbound)/Arrow Highway	San Dimas	A	7.5	A	7.4	-0.1	NO
25	SR-57 (northbound)/Arrow Highway & Bonita Avenue	San Dimas	C	26.2	C	27.5	1.3	NO
26	Eucla Avenue/Fifth Street	San Dimas	A	7.4	A	7.4	0.0	NO

Table 5-15: AM Peak Hour Intersection Impacts Comparison (Build and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 Build		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
27	Eucla Avenue/Second Street	San Dimas	A	9.7	A	9.8	0.1	NO
28	Eucla Avenue/Bonita Avenue	San Dimas	A	4.7	A	4.8	0.1	NO
29	Eucla Avenue/Arrow Highway	San Dimas	A	8.4	A	8.8	0.4	NO
30	Acacia Street/Fifth Street	San Dimas	A	9.2	A	9.2	0.0	NO
31	Acacia Street/Second Street	San Dimas	A	9.1	A	9.1	0.0	NO
32	Acacia Street/Bonita Avenue	San Dimas	B	11.1	B	10.6	-0.5	NO
33	Cataract Avenue/Second Street	San Dimas	A	9.9	B	10.0	0.1	NO
34	Cataract Avenue/Bonita Avenue	San Dimas	B	12.5	A	6.1	-6.4	NO
35	Monte Vista Avenue/Second Street	San Dimas	A	9.3	A	9.5	0.2	NO
36	Monte Vista Avenue/Bonita Avenue	San Dimas	C	20.2	C	17.7	-2.5	NO
37	San Dimas Avenue/Second Street	San Dimas	C	21.2	C	20.5	-0.7	NO
38	San Dimas Avenue/Bonita Avenue	San Dimas	B	12.2	B	12.2	0.0	NO
39	San Dimas Avenue/Arrow Highway	San Dimas	C	28.9	C	29.8	0.9	NO
40	Walnut Avenue/Bonita Avenue	San Dimas	A	6.7	A	6.6	-0.1	NO
41	Walnut Avenue/Arrow Highway	San Dimas	B	12.0	B	16.7	4.7	NO
42	San Dimas Canyon Road/Bonita Avenue	San Dimas	A	7.3	A	7.3	0.0	NO
43	San Dimas Canyon Road/Arrow Highway	San Dimas	B	13.8	C	27.6	13.8	YES
44	Wheeler Avenue/Third Street	La Verne	C	16.5	C	16.7	0.2	NO
45	Wheeler Avenue/Arrow Highway	La Verne	B	14.8	D	50.6	35.8	YES
46	A Street/Third Street	La Verne	B	10.3	B	10.4	0.1	NO
47	A Street/First Street	La Verne	A	9.3	A	9.5	0.2	NO
48	A Street/Arrow Highway	La Verne	F	198.6	A	9.8	-188.8	NO
49	D Street/Third Street	La Verne	A	9.6	B	10.2	0.6	NO
50	D Street/First Street	La Verne	A	9.7	A	9.9	0.2	NO
51	D Street/Arrow Highway	La Verne	A	5.9	C	22.2	16.3	YES
52	E Street/Third Street	La Verne	A	9.9	B	10.6	0.7	NO

Table 5-15: AM Peak Hour Intersection Impacts Comparison (Build and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 Build		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
53	E Street/Second Street	La Verne	B	14.3	C	15.6	1.3	NO
54	E Street/First Street	La Verne	B	11.4	B	13.6	2.2	NO
55	E Street/Arrow Highway	La Verne	C	22.5	C	27.3	4.8	NO
56	White Avenue/Third Street	La Verne	D	26.5	E	39.8	13.3	YES
57	White Avenue/Second Street	La Verne	C	24.8	D	28.0	3.2	NO
58	White Avenue/First Street	La Verne	D	28.4	D	33.1	4.7	YES
59	White Avenue/Sierra Way	La Verne	B	11.2	B	14.8	3.6	NO
60	White Avenue/Arrow Highway	La Verne	C	26.3	C	31.9	5.6	NO
61	D Street/Bonita Avenue	La Verne	A	8.1	A	8.2	0.1	NO
62	White Avenue/Foothill Boulevard	La Verne	C	29.6	C	29.4	-0.2	NO
63	White Avenue/Bonita Avenue	La Verne	B	14.0	B	14.3	0.3	NO
64	White Avenue/McKinley Avenue	La Verne	B	11.0	B	10.8	-0.2	NO
65	La Verne Avenue/Arrow Highway	La Verne	F	50.6	F	141.3	90.7	YES
66	Fulton Road/Bonita Avenue	Pomona	C	22.1	D	29.4	7.3	YES
67	Fulton Road/Arrow Highway	Pomona	C	22.4	D	27.4	5.0	YES
68	Garey Avenue/Bonita Avenue	Pomona	B	16.0	C	32.6	16.6	YES
69	Garey Avenue/Santa Fe Street	Pomona	B	10.8	A	9.4	-1.4	NO
70	Garey Avenue/Arrow Highway	Pomona	C	28.3	C	29.9	1.6	NO
71	Towne Avenue/Bonita Avenue	Pomona	A	9.9	B	18.5	8.6	NO
72	Towne Avenue/Towne Center Drive	Pomona	D	27.1	D	28.7	1.6	NO
73	Towne Avenue/Arrow Highway	Pomona	D	44.5	D	45.8	1.3	NO
74	Garey Avenue/Harrison Avenue	Pomona	A	7.5	A	7.9	0.4	NO
75	Indian Hill Boulevard/Bonita Avenue	Claremont	A	8.1	A	8.1	0.0	NO
76	Indian Hill Boulevard/First Street	Claremont	B	10.9	B	11.1	0.2	NO
77	Indian Hill Boulevard/Santa Fe Street	Claremont	B	11.2	B	11.2	0.0	NO
78	Indian Hill Boulevard/Arrow Highway	Claremont	C	21.2	C	21.1	-0.1	NO
79	College Avenue/Bonita Avenue	Claremont	A	9.9	B	10.4	0.5	NO

Table 5-15: AM Peak Hour Intersection Impacts Comparison (Build and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 Build		Change in Delay	Significant Impact
			Delay[1]	LOS	Delay[1]	LOS		
80	College Avenue/First Street	Claremont	B	10.8	C	15.2	4.4	NO
81	College Avenue/Arrow Highway	Claremont	A	6.3	A	7.4	1.1	NO
82	Claremont Boulevard/First Street	Claremont	A	3.3	A	4.0	0.7	NO
83	Mills/Claremont/Arrow Highway	Claremont	B	14.9	B	18.2	3.3	NO
84	Monte Vista Avenue/Arrow Route	Montclair	B	13.1	B	13.3	0.2	NO
85	Monte Vista Avenue/Richton Street	Montclair	A	3.3	A	5.4	2.1	NO
86	Monte Vista Avenue/Arrow Highway	Montclair	B	18.7	B	19.1	0.4	NO
87	Fremont Avenue/Arrow Highway	Montclair	A	1.8	A	1.7	-0.1	NO
88	Central Avenue/Arrow Route	Montclair	B	12.1	B	13.0	0.9	NO
89	Central Avenue/Richton Street/West 9th Street	Montclair	A	8.4	B	13.1	4.7	NO
90	Central Avenue/Arrow Highway	Montclair	B	15.9	B	15.8	-0.1	NO

[1] Average vehicle delay in seconds
[2] Shading shows intersections that would be significantly impacted as a result of the Build Alternative

Table 5-16: PM Peak Hour Intersection Impacts Comparison (Build and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 Build		Change in Delay	Significant Impact
			LOS	Delay[1]	LOS	Delay[1]		
1	Barranca Avenue/Bennett Avenue	Glendora	B	12.4	B	12.4	0.0	NO
2	Barranca Avenue/Foothill Boulevard	Glendora	A	8.4	A	8.4	0.0	NO
3	Grand Avenue/Foothill Boulevard	Glendora	C	34.3	C	28.5	-5.8	NO
4	Vermont Avenue East/Ada Avenue	Glendora	B	13.7	C	15.3	1.6	NO
5	Vermont Avenue/Route 66	Glendora	A	8.4	A	9.1	0.7	NO
6	Vermont Avenue/Foothill Boulevard	Glendora	A	7.0	A	7.7	0.7	NO
7	Vermont Avenue West/Ada Avenue	Glendora	B	12.0	B	13.2	1.2	NO
8	Glendora Avenue/Foothill Boulevard	Glendora	C	30.2	C	28.1	-2.1	NO
9	Glendora Avenue/Ada Avenue	Glendora	B	14.9	C	15.3	0.4	NO
10	Glendora Avenue/Route 66	Glendora	C	29.5	C	32.4	2.9	NO
11	Pasadena Avenue/Lemon Avenue	Glendora	A	7.8	A	7.9	0.1	NO
12	Pasadena Avenue/Route 66	Glendora	B	10.7	B	11.2	0.5	NO
13	Glenwood Avenue/Lemon Avenue	Glendora	B	11.2	B	11.3	0.1	NO
14	Glenwood Avenue/Route 66	Glendora	F	1097.3	F	OFL	N/A	YES
15	Elwood Avenue/Lemon Avenue	Glendora	B	10.9	B	11.0	0.1	NO
16	Elwood Avenue/Route 66	Glendora	B	16.2	B	18.1	1.9	NO
17	Loraine Avenue/Lemon Avenue	Glendora	B	13.7	B	13.7	0.0	NO
18	Loraine Avenue/Route 66	Glendora	B	11.8	B	11.6	-0.2	NO
19	Lone Hill Avenue/Auto Centre Drive	Glendora	C	24.1	C	22.7	-1.4	NO
20	Barranca Avenue/Sierra Madre Avenue	Glendora	C	15.8	C	15.5	-0.3	NO
21	Glendora Avenue/Sierra Madre Avenue	Glendora	B	14.5	B	14.2	-0.3	NO
22	Lone Hill Avenue/Glendora Marketplace	Glendora	C	23.1	C	23.1	0.0	NO
23	Lone Hill Avenue/Gladstone Street	San Dimas	C	25.5	C	25.5	0.0	NO
24	SR-57 (southbound)/Arrow Highway	San Dimas	C	20.2	B	19.4	-0.8	NO
25	SR-57 (northbound)/Arrow Highway & Bonita Avenue	San Dimas	C	29.2	C	29.1	-0.1	NO
26	Eucla Avenue/Fifth Street	San Dimas	A	7.4	A	7.4	0.0	NO

Table 5-16: PM Peak Hour Intersection Impacts Comparison (Build and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 Build		Change in Delay	Significant Impact
			LOS	Delay[1]	LOS	Delay[1]		
27	Eucla Avenue/Second Street	San Dimas	B	10.5	B	10.5	0.0	NO
28	Eucla Avenue/Bonita Avenue	San Dimas	A	8.1	A	8.0	-0.1	NO
29	Eucla Avenue/Arrow Highway	San Dimas	B	11.8	B	11.7	-0.1	NO
30	Acacia Street/Fifth Street	San Dimas	A	9.3	A	9.3	0.0	NO
31	Acacia Street/Second Street	San Dimas	A	9.2	A	9.1	-0.1	NO
32	Acacia Street/Bonita Avenue	San Dimas	C	24.4	C	24.4	0.0	NO
33	Cataract Avenue/Second Street	San Dimas	B	10.0	B	10.3	0.3	NO
34	Cataract Avenue/Bonita Avenue	San Dimas	C	25.0	A	5.2	-19.8	NO
35	Monte Vista Avenue/Second Street	San Dimas	A	9.9	A	9.9	0.0	NO
36	Monte Vista Avenue/Bonita Avenue	San Dimas	F	119.5	E	47.9	-71.6	NO
37	San Dimas Avenue/Second Street	San Dimas	E	36.2	E	38.2	2.0	YES
38	San Dimas Avenue/Bonita Avenue	San Dimas	B	19.6	B	18.5	-1.1	NO
39	San Dimas Avenue/Arrow Highway	San Dimas	D	48.9	D	48.3	-0.6	NO
40	Walnut Avenue/Bonita Avenue	San Dimas	B	13.9	B	14.6	0.7	NO
41	Walnut Avenue/Arrow Highway	San Dimas	B	11.8	B	13.2	1.4	NO
42	San Dimas Canyon Road/Bonita Avenue	San Dimas	A	9.0	A	9.0	0.0	NO
43	San Dimas Canyon Road/Arrow Highway	San Dimas	B	12.1	C	28.1	16.0	YES
44	Wheeler Avenue/Third Street	La Verne	C	15.6	C	15.7	0.1	NO
45	Wheeler Avenue/Arrow Highway	La Verne	B	12.9	D	37.8	24.9	YES
46	A Street/Third Street	La Verne	B	10.6	B	10.8	0.2	NO
47	A Street/First Street	La Verne	A	10.0	B	10.0	0.0	NO
48	A Street/Arrow Highway	La Verne	F	62.6	D	39.9	-22.7	NO
49	D Street/Third Street	La Verne	B	13.5	C	15.4	1.9	NO
50	D Street/First Street	La Verne	B	11.5	B	12.7	1.2	NO
51	D Street/Arrow Highway	La Verne	A	6.2	C	30.4	24.2	YES
52	E Street/Third Street	La Verne	B	12.9	C	16.0	3.1	NO

Table 5-16: PM Peak Hour Intersection Impacts Comparison (Build and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 Build		Change in Delay	Significant Impact
			LOS	Delay[1]	LOS	Delay[1]		
53	E Street/Second Street	La Verne	B	14.8	C	16.9	2.1	NO
54	E Street/First Street	La Verne	B	12.6	B	13.7	1.1	NO
55	E Street/Arrow Highway	La Verne	C	27.6	C	33.3	5.7	NO
56	White Avenue/Third Street	La Verne	F	78.9	F	95.9	17.0	YES
57	White Avenue/Second Street	La Verne	F	56.4	F	121.4	65.0	YES
58	White Avenue/First Street	La Verne	E	49.5	F	142.2	92.7	YES
59	White Avenue/Sierra Way	La Verne	C	18.0	C	19.6	1.6	NO
60	White Avenue/Arrow Highway	La Verne	C	30.6	C	31.7	1.1	NO
61	D Street/Bonita Avenue	La Verne	B	10.2	B	10.8	0.6	NO
62	White Avenue/Foothill Boulevard	La Verne	D	39.9	D	39.6	-0.3	NO
63	White Avenue/Bonita Avenue	La Verne	B	17.3	B	17.9	0.6	NO
64	White Avenue/McKinley Avenue	La Verne	B	14.1	B	14.1	0.0	NO
65	La Verne Avenue/Arrow Highway	La Verne	F	471.1	F	652.8	181.7	YES
66	Fulton Road/Bonita Avenue	Pomona	F	58.1	F	137.4	79.3	YES
67	Fulton Road/Arrow Highway	Pomona	D	33.9	E	44.5	10.6	YES
68	Garey Avenue/Bonita Avenue	Pomona	B	15.8	B	18.5	2.7	NO
69	Garey Avenue/Santa Fe Street	Pomona	B	12.4	B	13.2	0.8	NO
70	Garey Avenue/Arrow Highway	Pomona	C	30.9	C	34.5	3.6	NO
71	Towne Avenue/Bonita Avenue	Pomona	B	11.2	B	15.6	4.4	NO
72	Towne Avenue/Towne Center Drive	Pomona	F	50.9	E	49.0	-1.9	NO
73	Towne Avenue/Arrow Highway	Pomona	D	45.1	D	46.7	1.6	NO
74	Garey Avenue/Harrison Avenue	Pomona	A	6.0	A	5.9	-0.1	NO
75	Indian Hill Boulevard/Bonita Avenue	Claremont	A	9.1	A	9.1	0.0	NO
76	Indian Hill Boulevard/First Street	Claremont	B	15.5	B	18.7	3.2	NO
77	Indian Hill Boulevard/Santa Fe Street	Claremont	B	13.2	B	13.2	0.0	NO
78	Indian Hill Boulevard/Arrow Highway	Claremont	D	37.3	D	37.3	0.0	NO
79	College Avenue/Bonita Avenue	Claremont	B	12.5	B	14.2	1.7	NO

Table 5-16: PM Peak Hour Intersection Impacts Comparison (Build and No Build Alternatives)[2]

#	Intersection	Jurisdiction	2035 No Build		2035 Build		Change in Delay	Significant Impact
			LOS	Delay[1]	LOS	Delay[1]		
80	College Avenue/First Street	Claremont	B	12.6	E	35.6	23.0	YES
81	College Avenue/Arrow Highway	Claremont	A	7.3	A	9.5	2.2	NO
82	Claremont Boulevard/First Street	Claremont	A	5.9	B	10.2	4.3	NO
83	Mills/Claremont/Arrow Highway	Claremont	B	19.8	C	25.2	5.4	NO
84	Monte Vista Avenue/Arrow Route	Montclair	B	14.6	B	14.7	0.1	NO
85	Monte Vista Avenue/Richton Street	Montclair	A	6.3	A	10.0	3.7	NO
86	Monte Vista Avenue/Arrow Highway	Montclair	C	31.0	C	32.9	1.9	NO
87	Fremont Avenue/Arrow Highway	Montclair	A	4.1	A	4.1	0.0	NO
88	Central Avenue/Arrow Route	Montclair	C	20.5	C	21.8	1.3	NO
89	Central Avenue/Richton Street/W 9th Street	Montclair	B	10.4	B	15.2	4.8	NO
90	Central Avenue/Arrow Highway	Montclair	C	29.6	C	31.3	1.7	NO

[1] Average vehicle delay in seconds
[2] Shading shows intersections that would be significantly impacted as a result of the Build Alternative

Roadway Segment Traffic Operations

The same percentage changes from the No Build Alternative were also applied to each of the 35 study roadway segments in the Build Alternative. The results are presented in **Table 5-17**. Similar to the No Build Alternative, all roadway segments would operate at LOS D or better, except North Towne Avenue between Arrow Highway and Bonita Avenue, which would operate at LOS E.

Table 5-17: Build Alternative – Roadway Segment Average Daily Traffic Analysis (2035)

Roadway Segment	From	To	Capacity[1,2,3,4] (Vehicles/Day)	Volume (Vehicles/Day)	V/C	LOS
Glendora						
South Lone Hill Avenue	West Gladstone Street	Auto Centre Drive	32,000	27,682	0.87	D
South Loraine Avenue	Route 66	E Lemon Avenue	16,000	10,544	0.66	B
South Elwood Avenue	Route 66	E Lemon Avenue	12,000	2,704	0.23	A
South Glenwood Avenue	Route 66	E Lemon Avenue	12,000	2,791	0.23	A
South Pasadena Avenue	Route 66	E Lemon Avenue	12,000	2,643	0.22	A
South Glendora Avenue	Route 66	Foothill Boulevard	32,000	18,292	0.57	A
South Vermont Avenue	Route 66	West Foothill Boulevard	12,000	4,255	0.35	A
Grand Avenue	Route 66	West Leadora Avenue	32,000	14,184	0.44	A
Foothill Boulevard	Barranca Avenue	Glendora Avenue	16,000	12,106	0.76	C
North Barranca Avenue	West Foothill Boulevard	West Leadora Avenue	12,000	8,287	0.69	B
San Dimas						
San Dimas Canyon Road	Arrow Highway	Bonita Avenue	32,000	9,130	0.29	A
Walnut Avenue	East Arrow Highway	East Bonita Avenue	16,000	7,375	0.46	A
San Dimas Avenue	Arrow Highway	Bonita Avenue	32,000	12,077	0.38	A
Monte Vista Avenue	Commercial Street	Bonita Avenue	12,000	535	0.04	A
Cataract Avenue	Arrow Highway	First Street	12,000	3,019	0.25	A
Bonita Avenue	Eucla Avenue	San Dimas Avenue	32,000	15,556	0.49	A
Eucla Avenue	Bonita Avenue	Third Street	12,000	3,732	0.31	A
West Gladstone Street	Lone Hill Avenue	Amelia Avenue	32,000	15,510	0.48	A
La Verne						
White Avenue	Arrow Highway	Third Street	32,000	18,712	0.58	A
E Street	Arrow Highway	Third Street	16,000	6,891	0.43	A
D Street	Arrow Highway	Third Street	12,000	5,676	0.47	A
A Street	Arrow Highway	Third Street	12,000	1,334	0.11	A

Table 5-17: Build Alternative – Roadway Segment Average Daily Traffic Analysis (2035)

Roadway Segment	From	To	Capacity[1,2,3,4] (Vehicles/Day)	Volume (Vehicles/Day)	V/C	LOS
Wheeler Avenue	Arrow Highway	Third Street	32,000	10,304	0.32	A
Pomona						
North Towne Avenue	Arrow Highway	Bonita Avenue	32,000	29,313	0.92	E
North Garey Avenue	Arrow Highway	Bonita Avenue	32,000	24,238	0.76	C
Fulton Road	Metrolink Driveway	—	16,000	1,558	0.10	A
Fulton Road	Arrow Highway	Bonita Avenue	16,000	1,894	0.12	A
Claremont						
South Mills Avenue/Claremont Boulevard	Arrow Highway	E First S	32,000	8,731	0.27	A
Indian Hill Boulevard	Arrow Highway	Bonita Avenue	32,000	21,765	0.68	B
College Avenue	E Arrow Highway	West Bonita Avenue	12,000	5,840	0.49	A
College Avenue	Green Street	—	12,000	6,399	0.53	A
Cambridge Avenue	West Arrow Highway	Bonita Avenue	12,000	5,277	0.44	A
First Street	Indian Hill Boulevard	College Avenue	24,000	8,484	0.35	A
Montclair						
Monte Vista Avenue	Richton Street	Arrow Highway	32,000	22,091	0.69	B
Central Avenue	Richton Street	Arrow Highway	32,000	27,071	0.85	D

[1] Capacity of 32,000 assumes 800 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.
[2] Capacity of 24,000 assumes 600 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.
[3] Capacity of 16,000 assumes 800 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.
[4] Capacity of 12,000 assumes 600 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.

Additional Traffic Issues at Specific Locations

In addition to the study intersections and roadways, several jurisdictions provided a list of additional specific areas of concern for further evaluation. An effort was conducted to evaluate impacts, due to the Build Alternative, at these specific locations and to recommend a set of solutions to address the impacts.

The City of Glendora advised of a traffic impact near the proposed parking structure for the LRT station. The proposed parking station is located along Glendora Avenue north of Route 66. There currently exists a driveway accessing the Albertsons shopping plaza, between Route 66 and the proposed parking structure access. The City is concerned that the additional traffic being generated by the future LRT parking structure would compromise the gaps available for vehicles exiting and entering the Albertsons driveway to maneuver safely in and out of the site. A traffic count was conducted at the Albertsons driveway and existing and future operating conditions were analyzed to determine if any significant impacts would occur as a result of the project generated traffic. The analysis showed that no queuing issues would affect vehicles entering or exiting the shopping plaza. In addition, the effects of the signal at the intersection of Glendora Avenue and Route 66 would create adequate gaps for vehicles to complete their turn movements.

The Cities of San Dimas and La Verne are concerned with the access to the station parking from Arrow Highway. A level of service evaluation was performed for both locations and it was determined that both ingress/egress intersections would be signalized and turning pockets would be provided on Arrow Highway for all turning movements entering the parking structure.

The Cities of San Dimas, Pomona, and Claremont each identified a grade crossing location that had been previously analyzed using the MTA Grade Crossing Policy for Light Rail Transit. The results of the analysis concluded that all three locations would require improvements to maintain safe operations with an at-grade configuration.

Further detailed analyses will be performed during the conceptual engineering and design phases of the project. **Table 5-18** provides a summary of the traffic impacts and recommendations at these locations.

Table 5-18: Impacts at Specific Locations

Location	Jurisdiction	Traffic Impact	Proposed Improvements
Access to proposed parking structure off Glendora Avenue.	Glendora	No Impact	• None
Access to proposed parking structure off Walnut Avenue.	San Dimas	No Impact	• Provide a left-turn pocket for the northbound approach from Walnut Avenue
Bonita Avenue /Cataract Avenue grade crossing	San Dimas	No Impact, with incorporation of the proposed Improvements	• Reconfigure the intersection as a traffic island or re-align Bonita Avenue and reduce the median width to reduce the size of the intersection. • Install traffic signals. • Provide four quadrant gates • Provide pedestrian gates • Implement education programs, as

Table 5-18: Impacts at Specific Locations			
Location	**Jurisdiction**	**Traffic Impact**	**Proposed Improvements**
			appropriate, for the local schools • Provide pre-emption of the traffic control • Adjust device placements and warning signs to provide positive control.
Access to proposed parking structure off Arrow Highway	La Verne	No Impact with incorporation of the proposed recommendations	• Signalize the proposed access • Provide a Left-turn pocket for the westbound approach from Arrow Highway • Provide a right-turn pocket for the eastbound approach from Arrow Highway
Garey Avenue grade crossing	Pomona	No Impact, with incorporation of the proposed Improvements	• Provide four quadrant gates • Address gate timing issues with dual sets of tracks (eliminate the bouncing gates phenomena) • Provide pedestrian gates • Evaluate whether medians could be extended • Improve street lighting at the crossing
Indian Hill grade crossing	Claremont	No Impact, with incorporation of the proposed Improvements	• Shift the Metrolink station platform to the east of College Avenue to minimize the gate down time • Provide four quadrant gates • Provide pedestrian gates • Provide pre-emption of the traffic signal at First Street • Provide do not block intersection signs at First Street • Consider use of narrow median along Indian Hill Boulevard north of the crossing • Develop design to prohibit eastbound left turns from west leg of Santa Fe Avenue • Provide right-of-way fencing in vicinity of crossing

5.2.4 Construction Phase

It may be necessary for traffic lanes to be temporarily closed. Generally, lane closures would take place at night in order to minimize traffic disruptions. Construction activities that entail the relocation of utilities and the construction of trackways and stations would require the temporary closure of lanes at roadways with at-grade crossings. Three types of grade crossing configurations were identified; midblock locations, locations adjacent to an intersection and locations where the tracks diagonally cross the intersection. With temporary lane closures occurring during the night, it is anticipated that construction impacts will be minimal at the mid-block and adjacent intersection locations. Since these lane closures are expected to take place during the night hours and outside the AM and PM peak commuting periods, there will be no impacts to both transit and traffic. Intersection operating conditions would remain at acceptable service levels because of the low traffic volumes that travel during the night. In addition, during the lane closures detour routes would be identified and clearly signed. However, at the two locations where the tracks diagonally cross the intersection, full closure of the intersection during the night hours is expected. At these select locations, impacts during construction, due to temporary interference with normal traffic flow, would be considered adverse/significant and would require the implementation of mitigation measures.

As with transit, it is anticipated that temporary lane closures would take place during the night hours when traffic volumes are substantially lower than the AM and PM peak periods. Some bus routes may require re-routing and stops may be temporarily relocated. In addition, detour routes may be implemented and clearly signed to temporarily divert traffic flow away from the closure area. Within the proposed alignement, the tracks diagonally cross the intersection at a total of two locations, one in Glendora and one in San Dimas. The Glendora intersection is at Grand Avenue/Foothill Boulevard. The San Dimas intersection is at Cataract Avenue/Bonita Avenue. During construction, these two intersections would be closed at night and transit and traffic would be re-routed to bypass the closure. Since traffic volumes are low during the night hours, it is anticipated that this adverse/significant impact can be mitigated by diverting traffic and clearly signing the detour route.

5.3 PARKING

On-street parking is available near the proposed stations at Glendora and La Verne. The existing Metrolink stations at Pomona and Claremont also provide on-street parking near the stations. No on-street parking is provided near the Montclair Transcenter; however, sufficient off-street parking is available for current and future operations.

There are two locations where the Build Alternative would minimally displace on-street parking near the proposed stations. One is “D” Street in La Verne where the space occupied by one diagonal stall on the east side of the street just north of the tracks would be needed for a pedestrian safety area. The other is Santa Fe Avenue in Claremont where the space occupied by three parallel parking stalls on the north side of the street (one west of Indian Hill Boulevard and two east of Indian Hill Boulevard) are needed for pedestrian safety areas. Aside from these two locations, current on-street parking configurations and the existing number of on-street parking spaces would remain the same.

It may be necessary to prohibit on-street parking when traffic lanes are temporarily closed due to construction activities. These activities include the relocation of utilities and the construction of trackways and stations. The temporary closure of lanes would be required at roadways with at-grade crossings.

Generally, lane closures would take place at night in order to minimize disruptions. With temporary lane closures occurring during the night, it is anticipated that construction impacts will be minimal at the mid-block and adjacent intersection locations. Since these lane closures are expected to take place during the night hours and outside of the AM and PM peak commuting periods, there will be no impacts to on-street parking spaces. Existing on-street parking spaces and loading stalls within the traffic control zone of influence that would be affected by construction activities would be temporarily removed as directed by the agency with jurisdiction. Track construction at the two locations where they diagonally cross the intersection, will require full closure of the intersection during the night hours. On-street parking spaces and loading stalls within the traffic control zone would be temporarily removed. To minimize the loss of crucial commercial parking during the off-peak day time hours, contractors would be required to have all employees park off-street at Authority-approved locations. Although these construction impacts may be temporary, they would be significant during the off-peak period and would require temporary mitigation measures for the duration of the construction period. During the night hours, parking impacts due to construction are considered insignificant due to the low demand for parking during the night hours.

5.4 PEDESTRIAN AND BICYCLE FACILITIES

The three stations that would be adjacent to existing bike lanes (Glendora, San Dimas, and Claremont) would require further evaluation during the next phases of the project to determine if station operations would conflict with existing or future bike lanes. A review of the General Plan for each city has identified the following changes that are planned for their respective city.

- Glendora – Construct Class I (off-road facility) along Foothill Boulevard to provide access to Citrus Community College, Azusa Pacific University, and the proposed Gold Line Station.

- San Dimas – Incorporate bike amenities such as long-term bicycle storage and a Bike Station into the San Dimas Gold Line Station. Provide safe cyclist connections.

- Claremont – Construct Citrus Regional Bikeway utilizing Bonita Avenue and First Street as Primary route to Claremont Boulevard. Connect bikeway to Upland/Montclair trail at county line.

- Montclair – Develop a complete bicycle trail system throughout the city, including a regional Class I Bicycle Trail along Metro railroad tracks, connecting Claremont, Pomona, La Verne, and San Dimas.

Station environments would be analyzed for pedestrian usage and safety. The Glendora Station site is currently an empty lot, so there is no existing pedestrian activity. The other proposed stations sit on developed land that would need to be wholly or partially acquired. Pedestrian circulation would be improved at these locations to ensure safe and efficient paths to traverse the proposed station and the parking facilities.

When construction of tracks or station area encroaches into a sidewalk, walkway, or crosswalk area, special consideration would be given to pedestrian safety. Pedestrian access to adjoining properties and bicycle traffic movements would be maintained during construction; however, portions of sidewalks may

be temporarily closed. Temporary nighttime closures of sidewalks and crosswalks may be necessary. In addition, temporary lane closures could inhibit the flow of bicycle traffic during construction.

5.5 AT-GRADE RAILROAD CROSSINGS

Metro grade crossing policy provides a framework for assessing traffic safety and operations related to at-grade crossings and identifying the need for safety treatments or grade separation. The policy includes a systematic review process and identifies corresponding "milestones" before determining the feasibility of a grade-crossing. The review process includes the following:

- **Initial Screening (Milestone 1) –** The first step is a planning-level assessment to categorize the grade crossings based on the roadway volumes conflicting with the LRT operations and the train frequencies. Each grade crossing is assigned to one of three groups: "At-Grade Should Be Feasible," "Possible At-Grade Operation," and "Grade Separation Usually Required." When a crossing is identified as "At-Grade Should Be Feasible," detailed engineering-level operational and safety analyses can still be triggered for (1) gated crossing with traffic pre-emption and (2) locations with salient geometry or safety issues.
- **Detailed Analysis (Milestone 2) –** The second step is to provide a further safety and operations analysis to evaluate the potential impacts of LRT train operations (such as pre-emption or signal priority) on traffic delay and cross-street progression. Review of existing and future site conditions, geometry, intersection volume-to-capacity ratio, traffic control, rail operation design and options is required. Preliminary disposition from this process is either "At-Grade Operation Should Be Feasible" or "Grade Separation Usually Required." This analysis may also identify potential operational impacts or safety concerns caused by LRT train operations and possible mitigation measures for safety enhancements.
- **Verification (Milestone 3) –** This is the final step before determining the adequacy of an at-grade crossing design and recommending whether a grade separation should be required. This analysis would be required only if an agreement regarding the proposed final design solutions could not be obtained from Metro and local constituencies (including other involved agencies and the community, as appropriate) due to concerns relating to safety, cost, operations, policy, and/or community desires). This task may involve refinement and validation of projected traffic volumes and rail operations using simulation modeling.

Milestone 1 is usually undertaken during the preliminary planning for a project. Milestones 2 and 3 are typically undertaken during preliminary engineering and environmental clearance. The final decision should be secured in conjunction with final engineering of a project.

The final decision on a crossing configuration for an intersection is based on the preceding technical analysis, engineering studies, and consensus-building. The California Public Utilities Commission must approve each grade-crossing application, and other third-party agreements and requirements must also be met.

Of the 29 at-grade crossing scenarios studied, the Milestone 1 screening indicated that no grade separations would be required, based on proposed train headways and the conflicting traffic volumes per hour per line. The Monte Vista Avenue crossing in Montclair is grade separated and would remain grade separated (even though the analysis indicated that the traffic volumes crossing the rail track would not

trigger the grade separation). In addition, the Lone Hill Avenue/Auto Center Drive and the Towne Avenue crossings are proposed to be grade-separated although the analysis indicated that traffic volumes would not trigger a grade separation at either location. **Table 5-19** presents the grade crossing locations where Milestone 1 and Milestone 2 analysis was conducted.

Table 5-19: Grade Crossing Locations Studied in Milestone 1 and 2 Analyses

City	Grade Crossing Locations (Milestone 1 Report)	Possible At-Grade Operation Crossing (Milestone 2 Report)
Glendora	• Barranca Avenue • Grand Avenue/Foothill Boulevard • Vermont Avenue/Ada Avenue • Glendora Avenue • Pasadena Avenue • Glenwood Avenue • Elwood Avenue • Loraine Avenue • Lone Hill Avenue/Auto Centre Drive	• Grand Avenue/Foothill Boulevard
San Dimas	• Gladstone Street • Eucla Street • Cataract Avenue/Bonita Avenue • Monte Vista Avenue • San Dimas Avenue • Walnut Avenue • San Dimas Canyon Road	• Gladstone Street • Cataract Avenue/Bonita Avenue • San Dimas Avenue
La Verne	• Wheeler Avenue • A Street • D Street • E Street • White Avenue • Fulton Road**	None
Pomona	• Garey Avenue • Towne Avenue	None
Claremont	• Cambridge Avenue • Indian Hill Boulevard • College Avenue • Claremont Boulevard/Mills Avenue	None
Montclair	• Monte Vista Avenue	None

Source: Fehr and Peers, 2011
**also located in Pomona

Detailed Analysis Reports (Milestone 2 Analysis) were completed for each crossing identified in the "Possible At-Grade Operation" region, as well as those that were in the borderline region between the "At Grade Should be Feasible" category and the "Possible At-Grade Operation" category. Using several checks on rail operations, traffic operations, and safety, feasible mitigations and crossing treatments for these four crossings were identified. **Table 5-20** outlines the treatments that would allow these crossings

to be operable at grade. The full text of the treatments is available **Appendix F**. The treatments as identified in the grade crossing analysis will be correlated with the proposed mitigations from the traffic analysis to create a comprehensive plan for each crossing and adjacent intersection.

Table 5-20: Results of Milestone 2 Grade Crossing Analysis

City	Grade Crossing	Recommended Treatment for At-Grade Operation
Glendora	Grand Avenue/ Foothill Boulevard	• Provide four quadrant gates • Provide pedestrian gates • Education programs to be implemented as appropriate for the local schools • Revise pedestrian channelization to improve control of movements • Provide pre-emption of the traffic control • Consider use of narrow median along Foothill Boulevard • Incorporate provision to ban right-turn-on-red • Provide potential anti-queuing controls. Include installation of "DO NOT BLOCK INTERSECTION" sign and "KEEP CLEAR" pavement marking at the Grand Avenue / Foothill Boulevard intersection and the side controlled Grand Avenue / Carroll Avenue intersection.
San Dimas	Gladstone Street	• Provide four quadrant gates • Provide pedestrian gates • Implement education programs, as appropriate, for the local schools • Provide potential anti-queuing controls. Include installation of "DO NOT BLOCK INTERSECTION" sign and "KEEP CLEAR" pavement at the adjacent signalized intersection of Lone Hill Avenue /Gladstone Street
San Dimas	Cataract Avenue/ Bonita Avenue	• Reconfigure the intersection as a traffic island or re-align Bonita Avenue and reduce the median width to reduce the size of the intersection. Install traffic signals. • Provide four quadrant gates • Provide pedestrian gates • Implement education programs, as appropriate, for the local schools • Provide pre-emption of the traffic control • Adjust device placements and warning signs to provide positive control.
San Dimas	San Dimas Avenue	• Provide four quadrant gates • Provide pedestrian gates • Provide potential anti-queuing controls. Include installation of "DO NOT BLOCK INTERSECTION" sign and "KEEP CLEAR" pavement nearby intersections, including: San Dimas Avenue/Bonita Avenue and San Dimas Avenue/West Railway.

Source: Fehr and Peers, 2011

Chapter 6 – Mitigation Measures

For the most part, public transit and on-street parking would be the same as the No Build Alternative. Pedestrian and bicycle facilities would be enhanced when compared to the No Build Alternative due to the proposed LRT project and its associated stations. For traffic circulation, a number of improvements are proposed as a result of this evaluation. The improvements include those implemented as part of the project as outlined above in the Build Alternative as well as the proposed mitigation measures, identified below, to address significant impacts. Further details about the proposed mitigation measures and residual impacts, if any, are provided below.

6.1 MITIGATION MEASURES

Pedestrian and bicycle facilities would be enhanced as a result of the project and associated stations. Improvements would be implemented for traffic circulation. Some would be an integral part of the Build Alternative, and some would be considered mitigation measures, to address significant impacts.

A number of intersections will be signalized as part of the mitigation measures for both The TSM and Build Alternatives. It is recommended that traffic signal system-wide operational improvements be made on intersections in progression. The following arterials will be set up for traffic signal system-wide coordination and synchronization.

- Route 66 – Glendora
- Bonita Avenue – San Dimas
- Arrow Highway – San Dimas and La Verne
- White Avenue – La Verne

6.1.1 Short-Term Construction Mitigation Measures

TR- 1 - During final design, site- and street-specific Worksite Traffic Control Plans shall be developed in cooperation with the appropriate departments of transportation in each Azusa-Montclair corridor City and with Los Angeles County to accommodate required pedestrian and traffic movements. To the extent practical, traffic lanes will be maintained in both directions, particularly during periods of peak traffic operations. Access to homes and businesses shall be maintained throughout the construction period. To the extent feasible, lane closures shall occur during the night hours.

TR-2 - Designated haul routes for trucks shall be identified during final design in cooperation with the corridor Cities and implemented throughout the construction process. These routes shall be situated to minimize noise, vibration, and other possible impacts. Following completion of the project, if slight physical damage to surface of the haul route roads is found, the road shall be treated as necessary.

TR-3 - The Traffic Management Control Plan shall be developed and implemented. The Plan shall be developed in close coordination with local jurisdictions, the local emergency response agencies (including fire and police departments and ambulance services), school districts, and other agencies as appropriate. The Plan shall include, but not be limited to:

- Providing public information through media alerts, flyers, and Authority website to alert and inform the community about construction activities and schedules, including planned street and access closures.
- Providing traveler information (traffic advisor radio, changeable message signs (CMS)), including detour routes
- Creating a hotline for the community with a direct connection to staff to answer questions, provide information, and resolve issues. In addition, field offices shall be opened at specific locations identified as best serving the community and neighborhoods.
- Developing specific street closures and phasing plans, and other measures.
- Posting advance notices indicating when access closed or limited on city streets
- Posting signs indicating access routes and alternate access points, as well as announcing that affected businesses are open.
- Placing newspaper notices to indicate street and access closures
- Before any significant bus rerouting changes are made, fliers shall be provided on buses at least two weeks in advance notifying riders of route modifications. In addition, hoods shall be placed over bus-stop signs notifying riders of what modifications have been made to the bus route.

6.1.2 Long-Term Mitigation Measures

For the intersections where significant traffic impacts were identified the following modifications were considered:

- Modifications to intersection geometrics within the existing pavement width, if feasible.
- Changes to signal operations to improve efficiency.
- Signalization of selected two- and four-way stop-controlled intersections.

Within the Study Area, 13 intersections were found to be significantly affected. The following mitigation measures are considered feasible and can be accommodated within the existing right-of-way. These measures shall be implemented prior to the inauguration of Project's operations.

TR-1 In Glendora, the Construction Authority shall cooperatively work with the City, and contribute funding as necessary, to ensure the signalization at the intersection of Glenwood Avenue and West Route 66.

TR-2 In San Dimas, the Construction Authority shall cooperatively work with the City, and contribute funding as necessary, to ensure the signalization at the intersection of San Dimas Avenue and Second Street.

TR-3 In La Verne, the Construction Authority shall cooperatively work with the City, and contribute funding as necessary, to ensure the signalization of the intersections of White Avenue and First Street, White Avenue and Second Street, and La Verne Avenue and Arrow Highway.

TR-4 In Pomona, the Construction Authority shall cooperatively work with the City, and contribute funding as necessary, to ensure the signalization of the intersection of Fulton Road and Bonita Avenue.

TR-6 In Pomona, the Construction Authority shall cooperatively work with the City, and contribute funding as necessary, to modify the Garey Avenue and Bonita Avenue intersection within existing right-of-way. The proposed modification is a restriping of the northbound approach to provide two exclusive left-turn lanes, one through lane, and one shared right-turn/through lane. The "receiving leg" would also be restriped to provide two through lanes.

TR-7 In Claremont, the Construction Authority shall cooperatively work with the City, and contribute funding as necessary, ensure the signalization of the intersection of College Avenue and First Street.

6.2 LEVEL OF IMPACT AFTER MITIGATION

Results of the intersection operating conditions after implementation of the Build Alternative mitigation measures are provided in **Table 6-2**. Detailed worksheets are attached as **Appendix H**. As shown, 10 of the 13 affected intersections will be mitigated to a level that is *less than significant*. For the three remaining affected intersections, no improvements can be accommodated within the existing right-of-way. However, even without mitigation the San Dimas Canyon Road/Arrow Highway and D Street/Arrow Highway would continue to operate at LOS C, while the intersection of Wheeler Avenue/Arrow Highway would operate at LOS D, which are acceptable level of service in urban areas. Nonetheless, impact at these three intersections is considered to be significant unavoidable according to the impact criteria.

Table 6-1: Build Alternative – Mitigated Intersection Level of Service

#	Intersection	Jurisdiction	AM		PM		Residual Impact
			LOS	Delay[1]	LOS	Delay[1]	
14	Glenwood Avenue/Route 66	Glendora	B	10.9	A	7.1	No
37	San Dimas Avenue/Second Street	San Dimas	A	2.3	A	3.9	No
43	San Dimas Canyon Road/Arrow Highway	San Dimas	C	27.6	C	28.1	Yes
45	Wheeler Avenue/Arrow Highway	La Verne	D	50.6	D	37.8	Yes
51	D Street/Arrow Highway	La Verne	C	22.2	C	30.4	Yes
56	White Avenue/Third Street	La Verne	D	28.4	F	77.6	No
57	White Avenue/Second Street	La Verne	A	3.4	A	7	No
58	White Avenue/First Street	La Verne	A	5.4	A	7.3	No
65	La Verne Avenue/Arrow Highway	La Verne	B	15.3	A	8.3	No
66	Fulton Road/Bonita Avenue	Pomona	A	18.1	A	9	No
67	Fulton Road/Arrow Highway	Pomona	C	24.5	D	32	No
68	Garey Avenue/Bonita Avenue	Pomona	C	21.9	B	19.1	No
80	College Avenue/First Street	Claremont	A	7.9	A	9.7	No

[1] Average vehicle delay in seconds per vehicle

Chapter 7 – Conclusions

The overall conclusions of the traffic study are presented in this section. In summary, there two impact categories; those found to be significant after mitigation and those found to be insignificant after mitigation.

7.1 PUBLIC TRANSIT

No unavoidable significant adverse impacts have been identified. Any impacts resulting from the displacement of bus stops or shifts in bus routes due to street design changes would be mitigated to a level that is less than significant by the adjustment of schedules and the notification of bus patrons so that they are aware of any route and time changes. Proposed developments, either under construction or planned, along the proposed alignment and station areas would benefit from increased transit service. In addition, the transit trips generated by these new development projects would contribute to the operational success of the overall regional LRT system. These would be considered beneficial impacts because they would increase system wide ridership thus benefiting the overall transit system.

7.2 STREETS AND HIGHWAYS

7.2.1 No Build Alternatine

Impacts due to overall growth in the Regional Connector project area are reflected in the No Build traffic forecasts and associated AM and PM peak hour level of service estimates.

7.2.2 TSM Alternative

A total of four intersection locations were impacted. After implementation of the proposed mitigation measures all four locations would be mitigated to a level of insignificance. There would be no residual impacts for this alternative.

7.2.3 Build Alternative

A total of thirteen intersection locations were impacted. After implementation of the proposed mitigation measures ten locations would be mitigated to a level of insignificance. In addition, there would be residual impacts at three intersections for this alternative.

7.3 PARKING

It is anticipated that construction of the future LRT alignment and stations would not impact or displace any existing on-street parking stalls. Current on-street parking configurations and the existing number of on-street parking spaces would remain the same.

7.4 OTHER MODES

The proposed station sites in the cities of Glendora, San Dimas, and Claremont would be adjacent to existing bike lanes and will need further evaluation during the next phases of the project to determine if construction of the LRT stations would conflict with the existing and any future bike lanes. Also, current station environments would need to be analyzed for pedestrian usage and safety.