



Pomona Valley ITS Project

Project Deliverable 4.1.3d **Individual City Report -** **City of La Verne**

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PROJECT DESCRIPTION

The County of Los Angeles, in cooperation with the cities within the Pomona Valley, has determined that development of an Intelligent Transportation System (ITS) in the Pomona Valley would help to reduce congestion, enhance mobility, provide traveler information during non-recurring and event traffic congestion, and manage event traffic. The Pomona Valley Intelligent Transportation Systems (PVITS) project was conceived as a recommendation from the Pomona Valley Feasibility Study completed by the MTA in 1995. The ultimate objectives of the Project are to:

- Improve mobility by optimizing traffic management on arterials and freeways;
- Enhance Route 60 capacity by better coordinating freeway traffic with parallel arterials;
- Improve agency efficiency by coordinating management of operations and maintenance efforts among and between agencies; and
- Increase agency staff productivity by providing low-maintenance, high-quality communications and computational tools to assist in daily management and coordination activities.

PURPOSE OF REPORT

The Conceptual Design of the Pomona Valley ITS project includes the preparation of a Stakeholder Operational Objectives Report that summarizes each project stakeholder's needs, objectives, and issues to consider in the planning, design, and implementation of advanced technologies for traffic control, traffic management, and traveler information systems. This Individual City Report document provides a summary of existing, planned (already approved), and desired transportation projects and policies within the City of La Verne. This summary is based upon information in the 1995 Pomona Valley Forum Signal Synchronization Study, with updates to the information based upon city input from recent surveys and coordination meetings. Separate reports of data summaries and stakeholder objectives have been created for each City within the Pomona Valley project area.

This report provides the following information for the City of La Verne:

- Section 1.0: Definition and overview of the study area
- Section 2.0: Existing, planned, and desired traffic control and communications infrastructure
- Section 3.0: Current issues and desired aspects of operations and maintenance
- Section 4.0: Current issues and desired aspects of interagency coordination

Figures illustrating the locations of existing and planned traffic control equipment and congestion issues are included in Appendix A. A list of all existing and proposed signalized intersections on study arterials within the City is included in Appendix B.

The Stakeholders Operational Objectives Report (Deliverable 4.1.2) is a separate document that will be developed as part of this project. It will provide more specific detail on the ideal operational characteristics of the PVITS equipment and user interfaces.

1.0 LA VERNE STUDY AREA CHARACTERISTICS

The study area for La Verne utilized information from a definition of roadway "significance" that was defined in the 1995 Pomona Valley Forum Signal Synchronization Study. This determination of roadway significance utilized roadway Average Daily Traffic (ADT) levels and Level of Service (LOS) ratings, along with other factors such as roadway inclusion in the Congestion Management Program (CMP), the number of transit routes utilizing the roadway, and local agency preference.

1.1 Study Arterials

Table 1 provides a summary of the arterials considered as "regionally significant" within La Verne, along with the major factors for prioritization that were utilized in the 1995 Synchronization Study. The locations of these arterials, and other prominent roadways in the City, are illustrated in **Figure 1** of Appendix A.

TABLE 1: STUDY AREA ARTERIAL SIGNIFICANCE SUMMARY			
Street	Average Daily Traffic	Number of Transit Routes	CMP Arterial
Arrow Highway	29,600	0	No
Bonita Avenue	15,900	1	No
Foothill Boulevard	25,700 – 60,800	2	Yes
Baseline Road	18,400 – 28,000	0	No
White Avenue	13,000 – 16,000	0	No

Source: Kimley-Horn and Associates, Inc., 2001

** Numbers are factored to 2001 current conditions from available 1995 data.*

Transit Availability

Table 1 also indicates transit availability along the city study arterials. Three Foothill Transit lines serve La Verne.

- Line 492 serves Arrow Highway, on its route between Montclair, Arcadia, El Monte, and Los Angeles.
- Local Line 187 (along with express Line 690) serves the Foothill Boulevard corridor within La Verne. Line 187 also serves the cities between Montclair and Pasadena.



- Express Line 690 provides service within limited stops along Foothill Blvd., including stops at the intersection of Foothill Blvd / White Avenue in La Verne. The line also serves park and rides in Montclair, Claremont, and San Dimas, for patrons destined for employment sites in downtown Pasadena.

Roadway Descriptions

The following text summarizes the characteristics of each of study area arterial within La Verne.

Arrow Highway: This highway provides east-west access in La Verne from the San Dimas city limits on the west to the City of Pomona on the east. It provides access to the major north-south arterial of Garey Avenue and White Avenue. It also has a full-access interchange with the 210 freeway, west of San Dimas Avenue.

Bonita Avenue: This roadway is an east-west arterial within La Verne. It provides access across the City from San Dimas on the west to Pomona on the east. Bonita Avenue intersects with White Avenue at the eastern portion of the city. The other end of the roadway is at the western portion of the city, where Bonita Avenue intersects with San Dimas Canyon Road.

Foothill Boulevard: This roadway is also a major east-west arterial. The roadway is located north of Bonita Avenue and is also part of the Historic Route 66. The roadway continues on to intersect with the current route SR30.

Baseline Road: This roadway is also a major east-west arterial. The roadway is north of Historic Route 66 and parallels the SR 210 is currently under construction. The western terminus of Baseline Road lies at its intersection with Foothill Blvd., near the western city limit.

Existing truck route designations within the study area are illustrated in **Figure 2** of Appendix A.

1.2 Traffic Congestion Issues

This section provides an overview of congestion issues for the city study area arterials and intersections. **Figure 3** in Appendix A illustrates the Average Daily Traffic levels of the study area arterials, as well as the Level of Service (LOS) of the study area intersections.

The list below provides a summary of congestion trouble spots in La Verne as indicated by City staff during project coordination meetings and correspondence. **Figure 4** in Appendix A illustrates the congested areas in the city.

- The City of La Verne considers the intersection of Foothill Boulevard/Wheeler Avenue, which is controlled by Caltrans, to be the most congested within the city.
- The City of La Verne considers Foothill Boulevard and Bonita Avenue to be the most congested arterials within the city.
- With the pending completion of the 210 Freeway extension, the City of La Verne believes that traffic counts on major arterials will change significantly.



Traffic counts were made at congested points within the La Verne study area, in order to gather updated Level of Service (LOS) data at these areas. Congestion as defined in this report, does not rely only on average congestion values such as LOS, but also on sporadic congestion caused by special event traffic. **Table 2** below indicates the LOS of selected intersections within the La Verne study area with mild traffic levels and little activity at the Fairplex.

Bracket Field Airport is located in the southern portion of the City. No significant traffic impacts have been identified as a result of this land use.

The results of the analysis verifies that the intersection of Foothill Blvd. / Wheeler Avenue operates at unacceptable conditions. The intersection operates at LOS ‘E’ during the a.m. peak, and LOS ‘C’ during the p.m. peak. Most of this congestion is generated from the terminus of the SR 30 freeway, which is located to the west of the Foothill Blvd. / Baseline Road intersection.

TABLE 2: LEVEL OF SERVICE (LOS) OF SELECTED INTERSECTIONS, LA VERNE STUDY AREA		
Intersection	AM Peak Period LOS	PM Peak Period LOS
Foothill Blvd. / Fruit Street / White Avenue	A	B
Foothill Blvd. / Wheeler Avenue	E	C
Bonita Avenue / White Avenue	A	A
Baseline Road / Fruit Street	A	A

*LOS values are based upon intersection turn movement counts conducted during the week of June 25, 2001.
Data was analyzed utilizing the 1997 Highway Capacity Manual method.*

2.0 TRAFFIC CONTROL AND MONITORING SYSTEM

This section provides an overview of the existing and planned traffic signal equipment, and related communications and monitoring equipment. This represents the core infrastructure from which an ITS system can be conceptualized. The remaining sections of the document provide an overview of traffic operations, and system operations and institutional issues.

La Verne is primarily a developed community with established traffic patterns. The completion of the SR 210 freeway, south of Baseline Road, will be the most significant change within La Verne during the study period. **Figure 5** in Appendix A indicates the 24 existing traffic signal locations on the regionally significant arterials in the study area within La Verne. **Appendix B** provides a list of the locations of this traffic signal equipment.

Issues concerning the City's existing traffic signal control system, and City's objectives for planned equipment, including a communications system, are provided in the following lists:

Existing System



- The City of La Verne has full or partial ownership of 10 of the 25 traffic signals on regionally significant arterials within the city study area. At two signals, ownership is shared between the City of La Verne and the City of San Dimas.
- Caltrans has ownership of the remaining 12 traffic signals on regionally significant roadways within the city study area.
- Caltrans-controlled signals utilize 170-type controllers.
- Traffic signals on Arrow Highway utilize WWV antennas for synchronization.
- A hardwire interconnect is used for the traffic signals along White Avenue.

Planned Improvements

- There are no planned improvements within the City of La Verne.

Desired Improvements

- The City would like to install additional signal interconnect at selected locations.
- No crucial traffic issues for City of La Verne were identified. The City of La Verne continues to make roadway improvements as problems arise.
- New signal locations desired:
 - Foothill Boulevard @ Bradford Avenue
 - Wheeler Avenue @ Via Arroyo
 - Baseline Road @ Fruit Avenue
 - Fruit Avenue @ Bowdoin Street

3.0 OPERATIONS AND MAINTENANCE ISSUES

The City of La Verne has identified specific system operations and maintenance issues regarding PVITS implementation within the City. The issues discussed during project coordination meetings included resources and staffing for maintenance of the current traffic control system, monitoring of traffic, and traffic data collection. Also discussed were operations and maintenance issues of an ITS system, and all of its related components.

- The City of La Verne may obtain control of the traffic signals on Foothill Boulevard and Baseline Road after the SR 210 opens, depending on the outcome of the relinquishment agreement.
- The City of La Verne feels that their traffic signals are currently well-synchronized.
- Operational funding and/or staff-power does not exist at the City of La Verne. It would not be feasible for the City to contribute staff or money to this project.
- The City of La Verne receives feedback in regards to the operation of its traffic signals in equal percentages from the public, police, and staff/ contract employees.
- The City of La Verne intends to contract out all the services for the traffic control system.

4.0 INTERAGENCY AND LOCAL CITY ISSUES

The following list documents issues of communication, cooperation, and agreement between internal city departments and other local and regional agencies.



- The City of La Verne is concerned about the future extension of SR-210 opening and its impact traffic levels.
- The City of La Verne is concerned about the aesthetics of arterial-based Dynamic Message Sign (DMS) equipment. Another issue will be City Planning Commission approval to get sign design/ implementation.
- The biggest traffic issue for the City is the 15-20 days per year during the Los Angeles County Fair; but the extent of impacts is not enough to warrant the expense of implementing a management system.
- The City of La Verne does not have any relationship issues with the Fairplex. According to the City, traffic from the Fairplex seems to be minimal and the City doesn't see a need to be involved with any Fairplex-related ATIS or ATMS systems.
- La Verne Police Department (LVPD) desires management of Arrow Highway corridor signals at times of Fairplex Events, either through management by LVPD or jointly with Fairplex.

5.0 NEXT STEPS

The information summarized within this document will be utilized to formulate the Stakeholders and Operational Objectives Report (Deliverable 4.1.2). This document will provide a project-wide evaluation of stakeholder needs and wishes, and provide a basis for the Requirements Analysis under Task 5 of this project. The Stakeholders and Operational Objectives Report will provide the following analyses of PVITS project implementation, from information summarized in the Individual City Reports:

- Anticipated benefits to stakeholders
- Potential cost implications to stakeholders
- Potential impacts on local agency staffing and operation
- Potential impacts on local agency management and maintenance costs

Deliverables from the Addendum Report, Route 60 Feasibility Study, and the Fairplex Traffic Management Plan efforts will also be incorporated into the Requirements Analysis task, and into tasks beyond this, such as the Concept of Operations and Alternatives Analysis.



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Appendix A

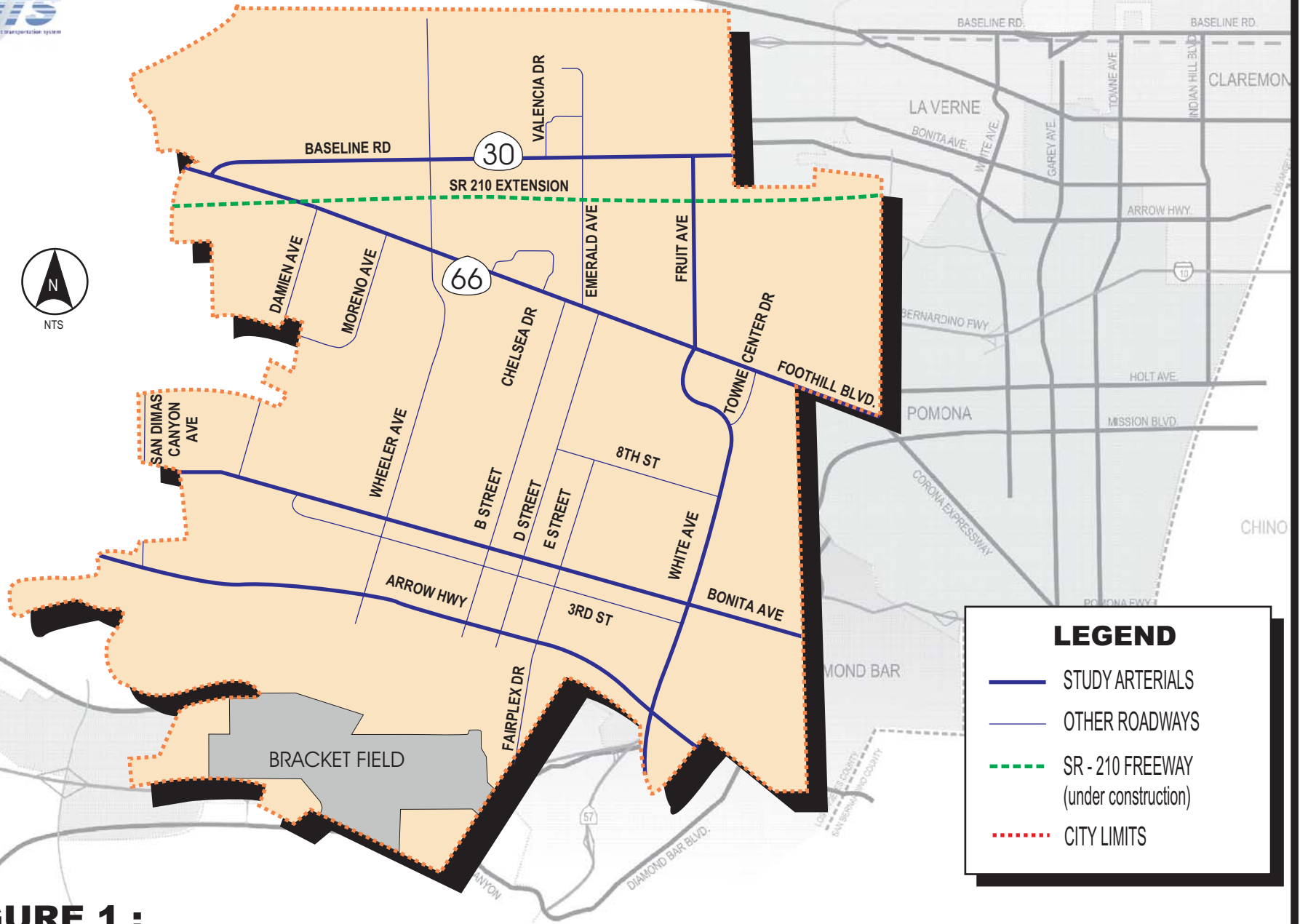
Figure 1: Regionally Significant Arterials

Figure 2: Existing Truck Routes

Figure 3: Average Daily Traffic and Level of Service (LOS)

Figure 4: Traffic Congestion Locations

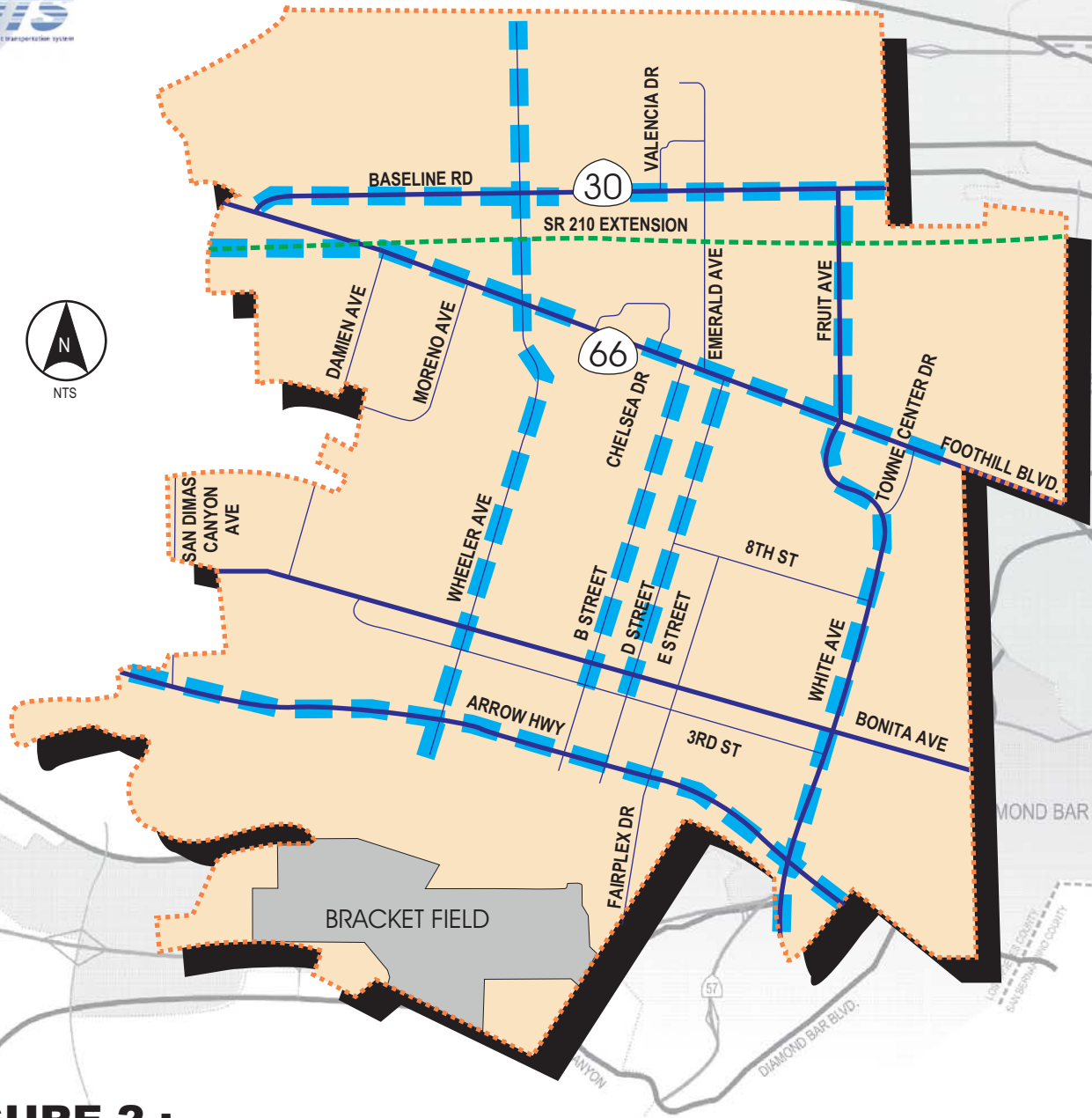
Figure 5: Traffic Signal and Control Equipment Locations on Regionally Significant Arterials



LEGEND

- STUDY ARTERIALS
- OTHER ROADWAYS
- - - SR - 210 FREEWAY (under construction)
- · · · CITY LIMITS

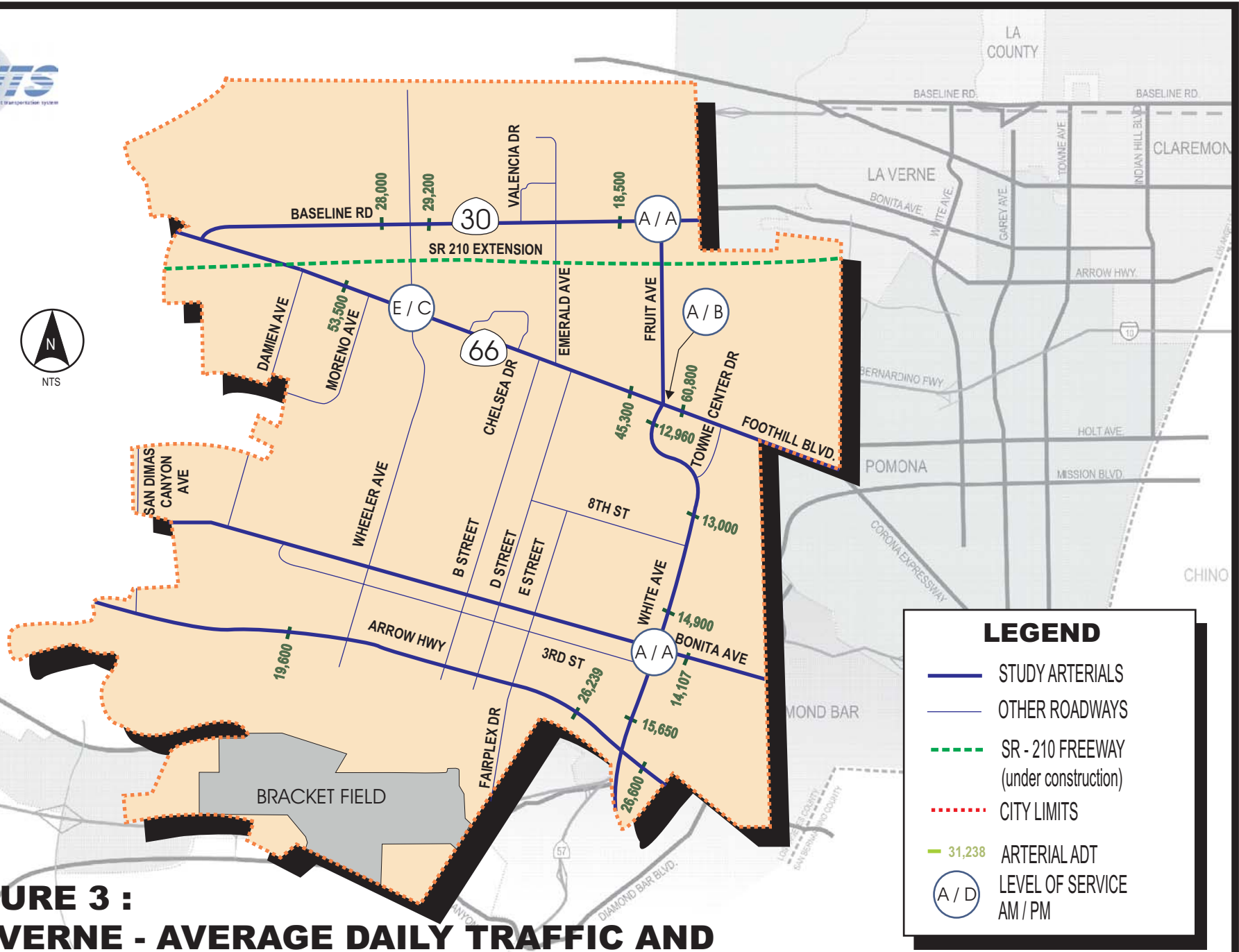
**FIGURE 1 :
LA VERNE - REGIONALLY SIGNIFICANT ARTERIALS**



LEGEND

- STUDY ARTERIALS
- OTHER ROADWAYS
- - - SR - 210 FREEWAY (under construction)
- CITY LIMITS
- TRUCK ROUTES

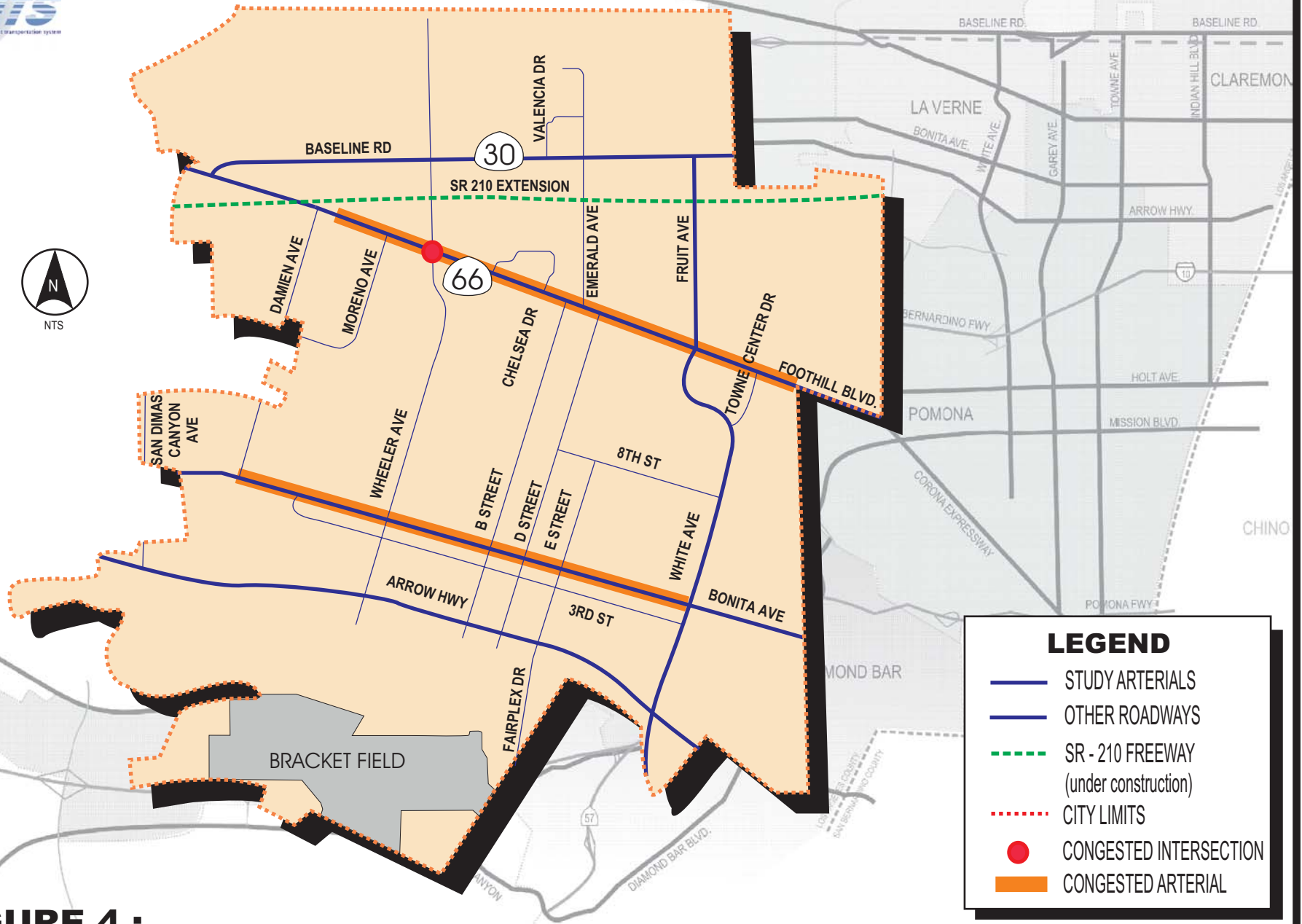
**FIGURE 2 :
LA VERNE - EXISTING TRUCK ROUTES**



**FIGURE 3 :
LA VERNE - AVERAGE DAILY TRAFFIC AND
LEVEL OF SERVICE (LOS)**

LEGEND

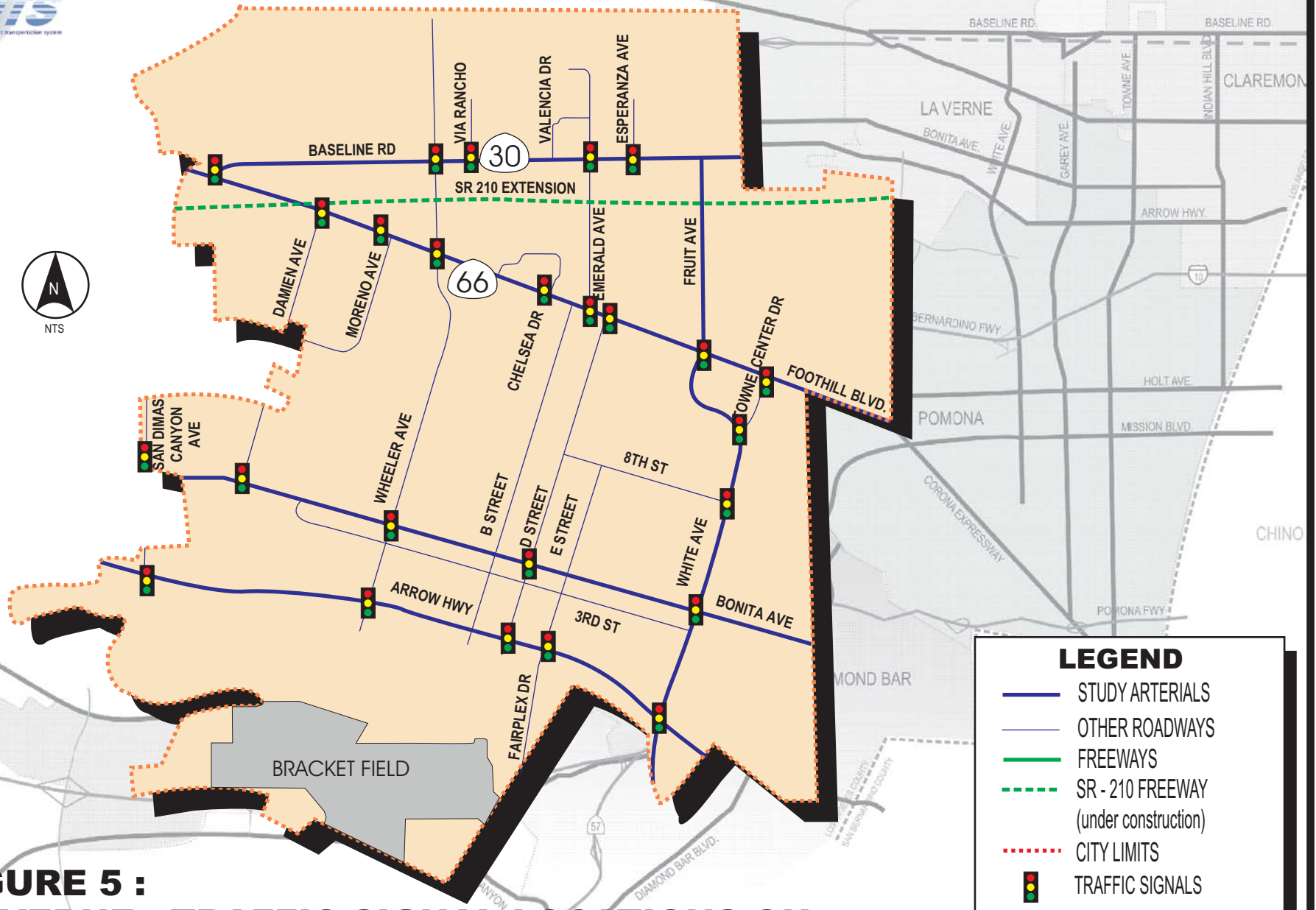
- STUDY ARTERIALS
- OTHER ROADWAYS
- - - SR - 210 FREEWAY (under construction)
- . . . CITY LIMITS
- 31,238 ARTERIAL ADT
- A/D LEVEL OF SERVICE AM / PM



LEGEND

- STUDY ARTERIALS
- OTHER ROADWAYS
- - - SR - 210 FREEWAY (under construction)
- CITY LIMITS
- CONGESTED INTERSECTION
- CONGESTED ARTERIAL

**FIGURE 4 :
LA VERNE - TRAFFIC CONGESTION LOCATIONS**



**FIGURE 5 :
LA VERNE - TRAFFIC SIGNAL LOCATIONS ON
REGIONALLY SIGNIFICANT ARTERIALS**



Appendix B

TRAFFIC SIGNAL EQUIPMENT ON REGIONALLY SIGNIFICANT ARTERIALS WITHIN LA VERNE			
Signalized Intersection	Controller	Phases	Ownership
Arrow Hwy / D St.	390	8	La Verne
Arrow Hwy / E St. / Fairplex Drive	390	8	La Verne
Arrow Hwy / San Dimas Canyon Ave.	390	8	La Verne 75% San Dimas 25%
Arrow Hwy / Wheeler Avenue	390	8	La Verne
Arrow Hwy / White Ave.	390	8	La Verne
Baseline Road / Emerald Avenue	170	6	Caltrans
Baseline Road / Foothill Blvd.	170	6	Caltrans
Baseline Road / Via Rancho	170	4	Caltrans
Baseline Road / Wheeler Avenue	170	4	Caltrans
Baseline Road / Esperanza Road	170	6	Caltrans
Bonita Avenue / D Street	ACS-2-2100	8	La Verne
Bonita Avenue / Damien Avenue	ACS-2-2100	8	La Verne
Bonita Avenue/ San Dimas Canyon Ave.	170	8	San Dimas 75% La Verne 25%
Bonita Avenue / Wheeler Avenue	820	8	La Verne
Bonita Avenue / White Ave.	ACS-2-2100	8	La Verne
Foothill Blvd./ Chelsea Avenue	170	5	Caltrans
Foothill Blvd./ D Street	170	6	Caltrans
Foothill Blvd./ Damien Ave.	170	4	Caltrans
Foothill Blvd. / Emerald Avenue	170	6	Caltrans
Foothill Blvd./ Wheeler Avenue	170	8	Caltrans
Foothill Blvd./ White Ave./ Fruit St.	170	8	Caltrans
Foothill Blvd. / Moreno Drive	170	6	Caltrans
Foothill Blvd. / Towne Center Dr.	170	6	Caltrans
White Ave. / Towne Center Drive	170	3	La Verne
White Ave./ 8 th Street	170	3	La Verne