



# Pomona Valley ITS Project

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## Project Deliverable 3.3.1 Fairplex Data Inventory and Review

*Prepared by:*



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## PROJECT DESCRIPTION

The County of Los Angeles, in cooperation with the cities within the Pomona Valley, has determined that the 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 advanced traffic technology to assist in daily management and coordination activities.

Phase 1 of the PVITS project is the development of a conceptual design that defines solutions to enhance capacity, reduce congestion, and improve traveler information in the Pomona Valley.

## 1.0 BACKGROUND

### 1.1 Purpose of Document

The purpose of this document is to summarize initial findings from data collection efforts completed during the development of the Traffic Management Plan for the Fairplex. This document summarizes data collection efforts pertaining to existing traffic data, current traffic control, and recent traffic and planning studies. These summaries are based on field data collection, review of existing studies, and stakeholder interviews. The intent of this document is to present these findings of the data collection effort to the client and project stakeholders for evaluation and comment.

The results of this client and stakeholder evaluation will then be incorporated into the project deliverable technical memorandum entitled “Improvement Recommendations”. Lastly, the Draft and Final Fairplex Traffic Management Plans will then be produced.

### 1.2 Purpose of the Traffic Management Plan

The Conceptual Design for the Pomona Valley ITS project includes a Traffic Management Plan for the Fairplex. This effort includes a traffic study and conceptual design of an Advanced Traffic Management System (ATMS) and an Advanced Traffic Information System (ATIS). These components are proposed under this project in order to benefit the management and operation of traffic on adjacent roadways and on-site parking lots at Fairplex.

The Fairplex is a major traffic generator in the Pomona Valley subregion of Los Angeles County with active events throughout the year. Therefore, it is addressed specifically in the Traffic Management Plan, which will then be incorporated into the larger Pomona Valley ITS Conceptual Design.

The Fairplex operates on land owned by the County of Los Angeles, and is located within the City of Pomona. The facility hosts the annual Los Angeles County Fair and between 200 to 300 other events each year. The average annual attendance at the Fairplex is approximately three million people. The Los Angeles County Fair represents approximately 1.3 million of this total attendance.

The Fairplex site is 487 acres in size and includes approximately 325,000 square feet of indoor exhibit space in eight exhibit halls. **Figure 1** provides an aerial view of the Fairplex site, the main gates, and adjacent arterial roadways, and **Figure 2** provides an illustration of the areas surrounding the Fairplex site. The on-site amenities within the main area of the Fairplex include a 10,000-seat grandstand, a horse racetrack, an equine sales facility, an NHRA racetrack and museum, a 247-room hotel, and a recreational vehicle park. **Figure 3** provides an illustration of the layout of the Fairplex on-site exhibit areas.

The Fairplex hosts the annual Los Angeles County Fair and other events such as trade shows, conventions, inter-track wagering, sporting, and agricultural events. The operator of the Fairplex is the Los Angeles County Fair Association, a non-profit organization. The Fair Association manages and operates the Fair and other year-round activities at the Fairplex, as well as the rental of facilities to outside promoters.

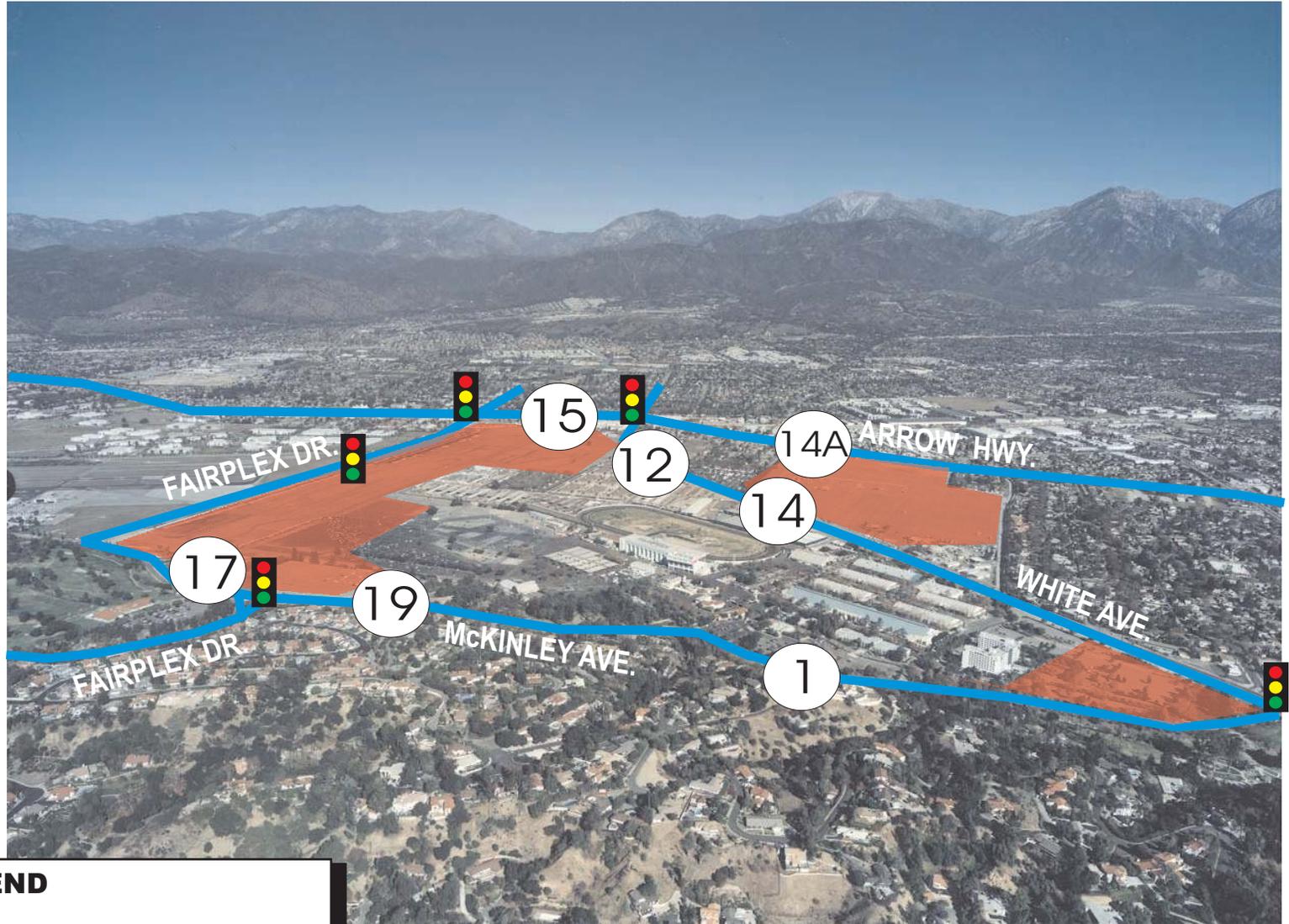
### 1.3 Study Area Characteristics

#### *Study Area Roadways*

**Arrow Highway** is a major east-west highway, which borders the Fairplex to the north. Three travel lanes are provided in each direction in the vicinity of the Fairplex. The roadway has a posted speed limit of 45 MPH and parking is prohibited on both sides of the roadway. Arrow Highway intersects the I-210 Freeway approximately four miles west of the Fairplex site and provides full access to the I-210 Freeway. Arrow Highway provides the most direct route to the Fairplex for vehicles coming from the north and northwest.

Gate 15 and Gate 14a (exit-only) provide access onto Arrow Highway from each of the two major lots at Fairplex. These gates are opened depending upon the type of event at Fairplex, the number of spectators expected, and the location of the event within the Fairplex facility. When Gate 15 is closed, drivers typically head south on Fairplex Drive to Gate 17 or south on White Avenue to Gate 14 or the Sheraton Hotel parking.

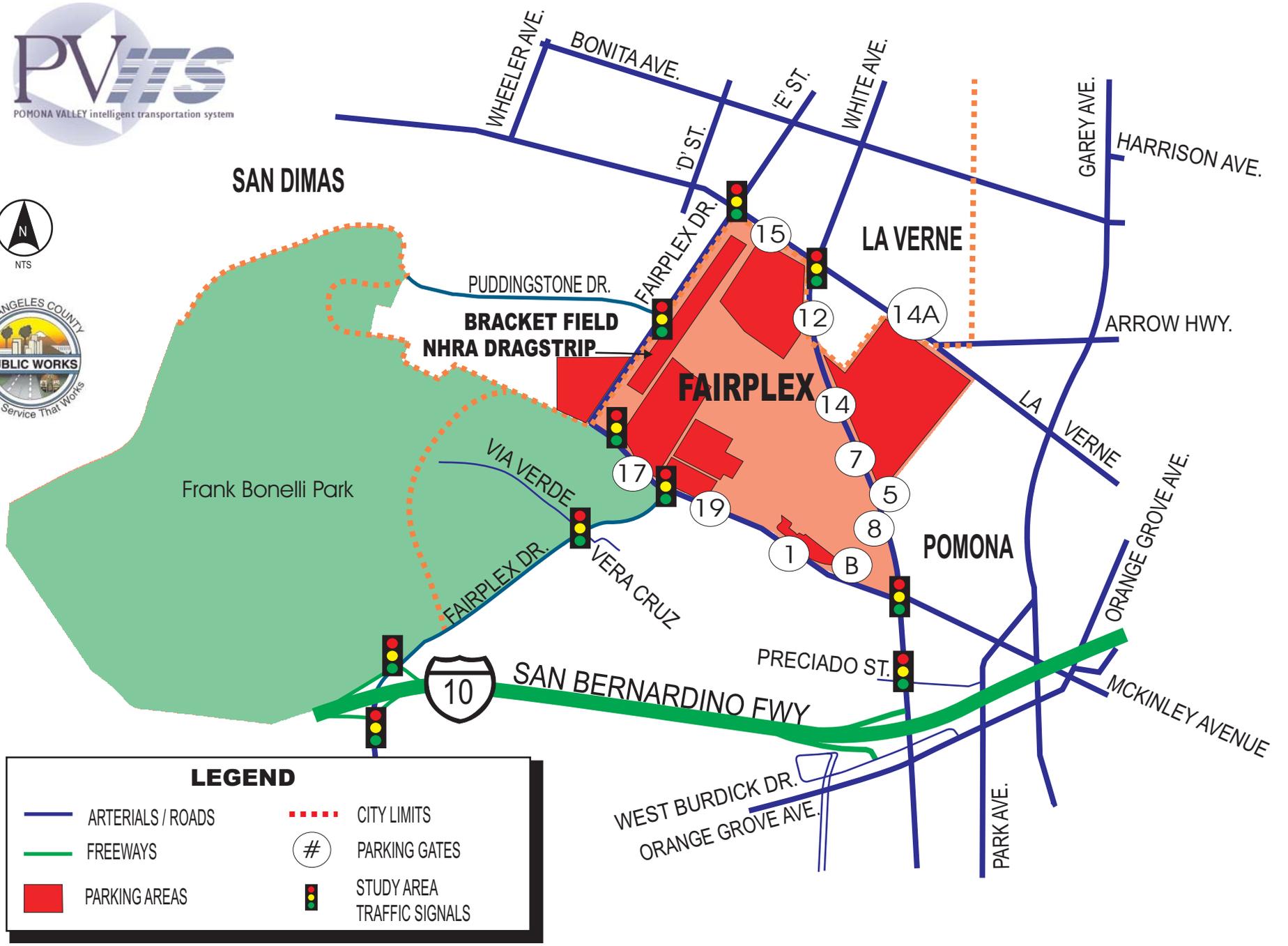
**White Avenue** is a north-south arterial street that runs between the east side of the Fairplex grounds and the parking lot at Gate 14. Two to three travel lanes are provided in each direction on White Avenue adjacent to the Fairplex and one travel lane in each direction between Arrow Highway and Bonita Avenue. The roadway has a posted speed limit of 40 MPH, and no parking is allowed adjacent to Fairplex. Several of the major access points to Fairplex - Gates 8, 12 and 14 - are located on White Avenue north of McKinley Avenue. Gate 14 leads to a major parking lot, located east of White Avenue. White Avenue provides limited access to the I-10 Freeway, south of the Fairplex site. The ramps at White Avenue provide access to the I-10 via a westbound on-ramp and an eastbound off-ramp. The eastbound off-ramp ends at a stop sign-controlled intersection with Burdick Drive. Burdick drive then provides access to White Avenue at another stop sign-controlled intersection.



**LEGEND**

	ARTERIALS/ROADS		PARKING GATES
	PARKING AREAS		TRAFFIC SIGNALS

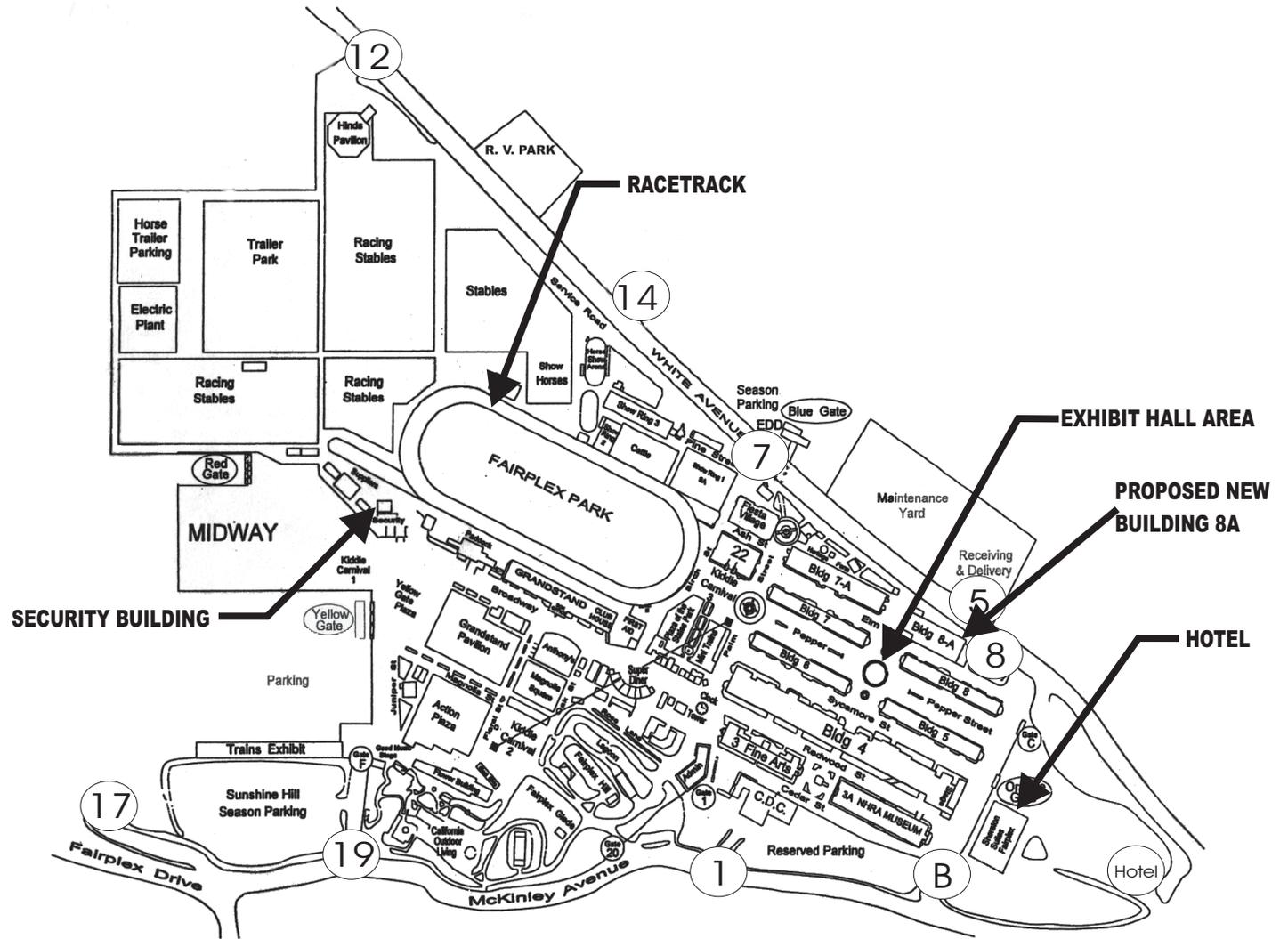
**FIGURE 1: FAIRPLEX AERIAL VIEW**



**LEGEND**

ARTERIALS / ROADS	CITY LIMITS
FREEWAYS	PARKING GATES
PARKING AREAS	STUDY AREA TRAFFIC SIGNALS

**FIGURE 2: FAIRPLEX SITE AND SURROUNDING AREA**



**LEGEND**

12 PARKING GATES

**FIGURE 3: FAIRPLEX SITE MAP**



**White Avenue event traffic facing northbound near Gate 14**

**McKinley Avenue** is an east-west roadway bordering the Fairplex to the south. The roadway has one travel lane in each direction and a two-way left turn lane between White Avenue and Fairplex Drive. McKinley Avenue has a posted speed limit of 35 MPH within the vicinity of Fairplex, and parking is prohibited on both sides. Several access points to Fairplex lie along McKinley Avenue, including the gate to the Sheraton Suites Hotel.



**McKinley Avenue off-peak conditions facing eastward toward Gate 1**



**Fairplex Drive** is a north-south roadway that borders the project site near the southwest corner, and then turns southward to the I-10 freeway from its intersection with McKinley Ave. Fairplex Drive provides a full interchange with the I-10 Freeway and is one of the most direct routes between the I-10 and the west side of the Fairplex. Two travel lanes are provided in each direction with left turn pockets at major intersections. There is a posted speed limit of 45 MPH within the vicinity of the Fairplex.

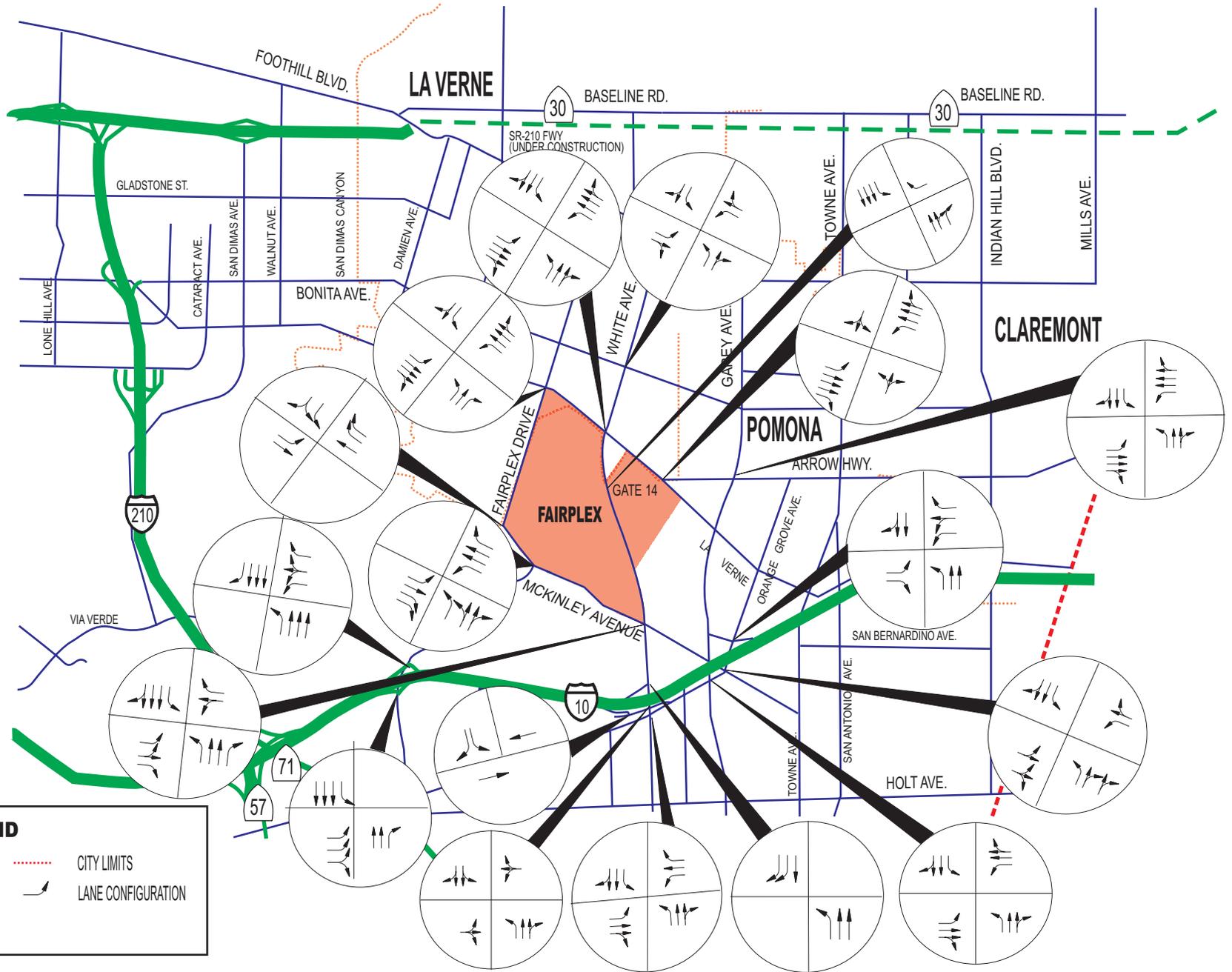
Gate 17 (ingress only) is in alignment with the intersection of McKinley Avenue and Fairplex Drive. This gate is a main access point for the Los Angeles County Fair and NHRA events. The intersection of Fairplex Drive with the access road to Brackett airport is a stop sign-controlled intersection with an unrestricted westbound right turn movement.



**Fairplex Drive event traffic looking eastward toward the McKinley Avenue intersection**

**Foothill Boulevard:** Foothill Boulevard is a state facility and is also known as Route 66 in the area adjacent to the Fairplex. Foothill Boulevard is a six-lane arterial with significant intersections at Wheeler Avenue, D Street, White Avenue, and Garey Avenue in the vicinity of the Fairplex.

During field surveys at the Fairplex, the lane geometry of each study area intersection was documented. **Figure 4** illustrates existing lane configurations at the intersections adjacent to the Fairplex facility.



**FIGURE 4: EXISTING INTERSECTION GEOMETRIES**



### *Area Freeways and Highways*

The Fairplex has excellent regional access due to its proximity to the existing and planned freeway facilities described below.

**I-210 Freeway (the existing N-S segment):** The I-210 freeway is an eight-lane controlled-access facility between the point where it turns south from the I-210/SR30 curve to the combined SR-57/I-10/SR71 interchange. This segment of the freeway carries an average of approximately 160,000 vehicles per day, based upon year 2000 Caltrans Annual Average Daily Traffic (AADT) data. There is a full interchange at Arrow Highway, providing access to this major route to and from the Fairplex. The San Dimas Avenue access point to the I-210 is also in the vicinity of the Fairplex.

**I-10 Freeway:** South of the Fairplex, the I-10 freeway is a 10-lane controlled-access facility with major interchanges at Fairplex Drive, Dudley Street, White Avenue, Garey Avenue and Orange Grove/McKinley Avenue. These interchanges provide direct access to the major routes to the Fairplex: Fairplex Drive, White Avenue and McKinley Avenue. The I-10 Freeway carries approximately 245,000 vehicles on an average day, based on year 2000 Caltrans AADT data near White Avenue, south of the Fairplex.

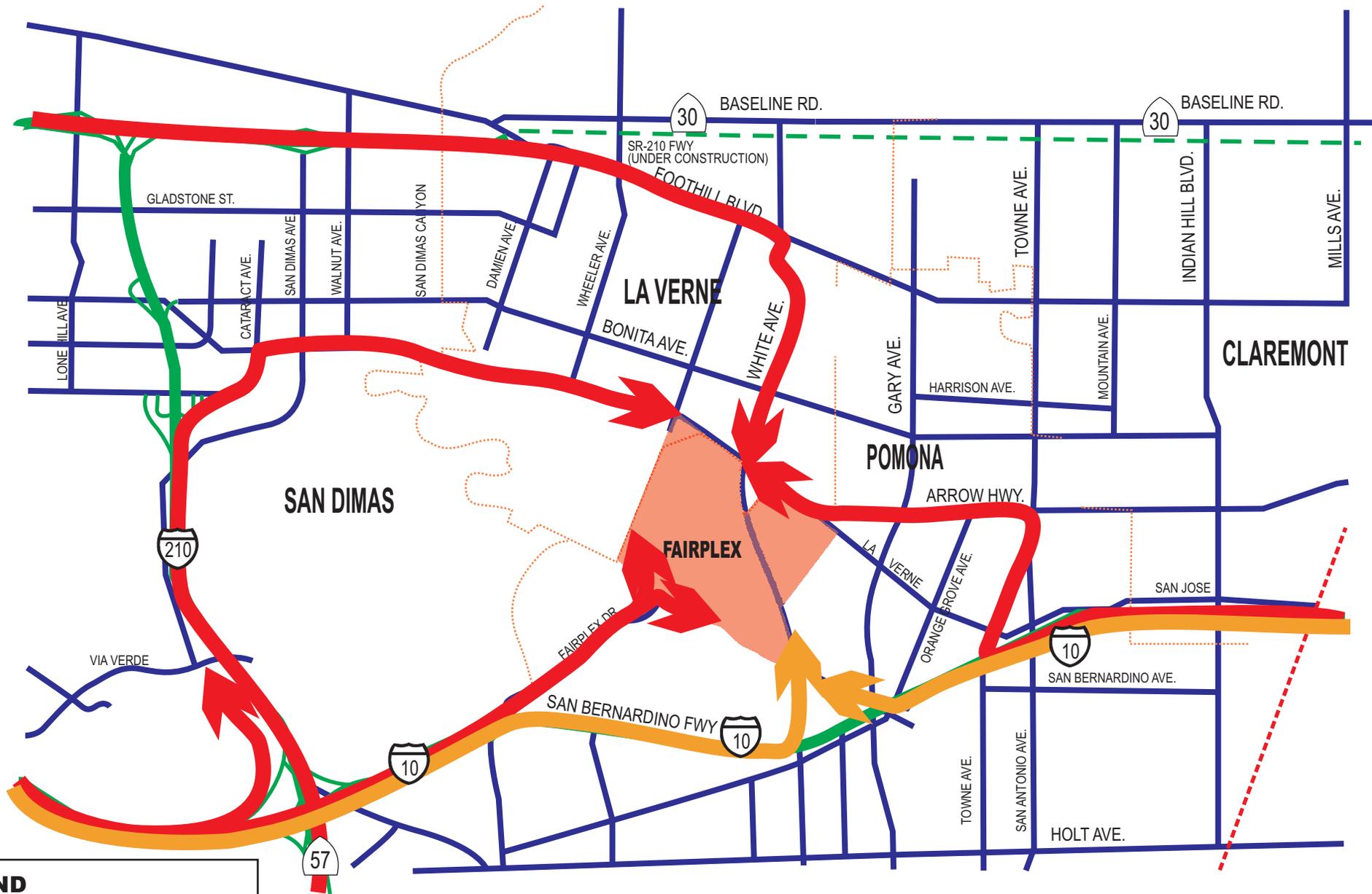
**SR 30:** I-210 currently exists as an east-west freeway through the San Gabriel Valley and it turns to the south in the City of the San Dimas. The SR 30 freeway continues east from the point where I-210 turns to the south. SR 30 extends to the east until it intersects with Foothill Boulevard. East of the SR 30/Foothill Boulevard intersection, the SR 30 designation is on Baseline Road.

**SR-210 Freeway (the planned E-W segment):** In a corridor that roughly parallels this roadway, the SR-210 Freeway (formerly named the SR-30 project) is under construction. In Los Angeles and San Bernardino counties will complete the facility from the current I-210 freeway junction with the SR-30 to the I-15 freeway in San Bernardino County. Access points in the vicinity of Fairplex will be at White Avenue/Fruit Street and Towne Avenue. The freeway will provide a six-lane facility (including HOV lanes) that will parallel Baseline Road.

It is expected that when the Freeway is completed, a significant amount of traffic will be diverted from the I-10/I-210 interchange, thus relieving some of the congestion experienced on the roadways in the vicinity of the Fairplex, such as Fairplex Drive and White Avenue. No estimated AADT data or analysis of the project's potential effects on arterial traffic levels was available from Caltrans at the time this document was written.

## **2.0 FIELD SURVEY DATA COLLECTION**

The study area for the Fairplex Traffic Management Plan includes major intersections and roadway segments adjacent to the Fairplex site. Data collection was performed along roadway segments between the Fairplex and surrounding freeway interchanges. **Figure 5**, on the following page, illustrates the main travel corridors to and from adjacent freeway access points to the Fairplex. The "Designated Routes" on Figure 8 are those existing routes designated for use by Fairplex through their printed media, website, permanent static signing on arterials and temporary (event) signing on the freeways. The "Secondary Routes" are those routes that are used when a designated route has been missed or is congested.



LEGEND	
ROADS	..... CITY LIMITS
WAYS	█ DESIGNATED ROUTES
0 (under construction)	█ SECONDARY ROUTES
CITY LIMITS	

# FIGURE 5: PROMINENT TRAVEL ROUTES TO FAIRPLEX



This section describes the field collection of existing traffic conditions data during the September 2000 Los Angeles County Fair. Additional data collection was compiled from a number of local agencies and organizations through existing document review and project coordination interviews.

## 2.1 Visual Observations

General traffic conditions and traffic control operations, during the 2000 Los Angeles County Fair, were field surveyed and documented on Friday, September 29<sup>th</sup> and Saturday, September 30<sup>th</sup>, 2000. Additional surveys were conducted during the Memories Expo on Saturday, March 3<sup>rd</sup> and during the SCPGA Golf Expo, Country Folk Art Show, Computer Fair and West Coast's Largest Car Show and Sale, all on Sunday, March 4<sup>th</sup>.

Arterials surrounding the Fairplex were surveyed between freeway corridors and the Fairplex site, in order to identify the primary routes utilized by vehicles destined to, or departing from, Fairplex events. The field surveys identified locations of temporary and permanent wayfinding signs on freeway and arterial routes to the Fairplex. The surveys also identified general bottleneck locations and the distribution of primary and bypass access routes. Traffic control methods administered by the Pomona Police Department at each intersection in the Fairplex vicinity were included in the documentation.

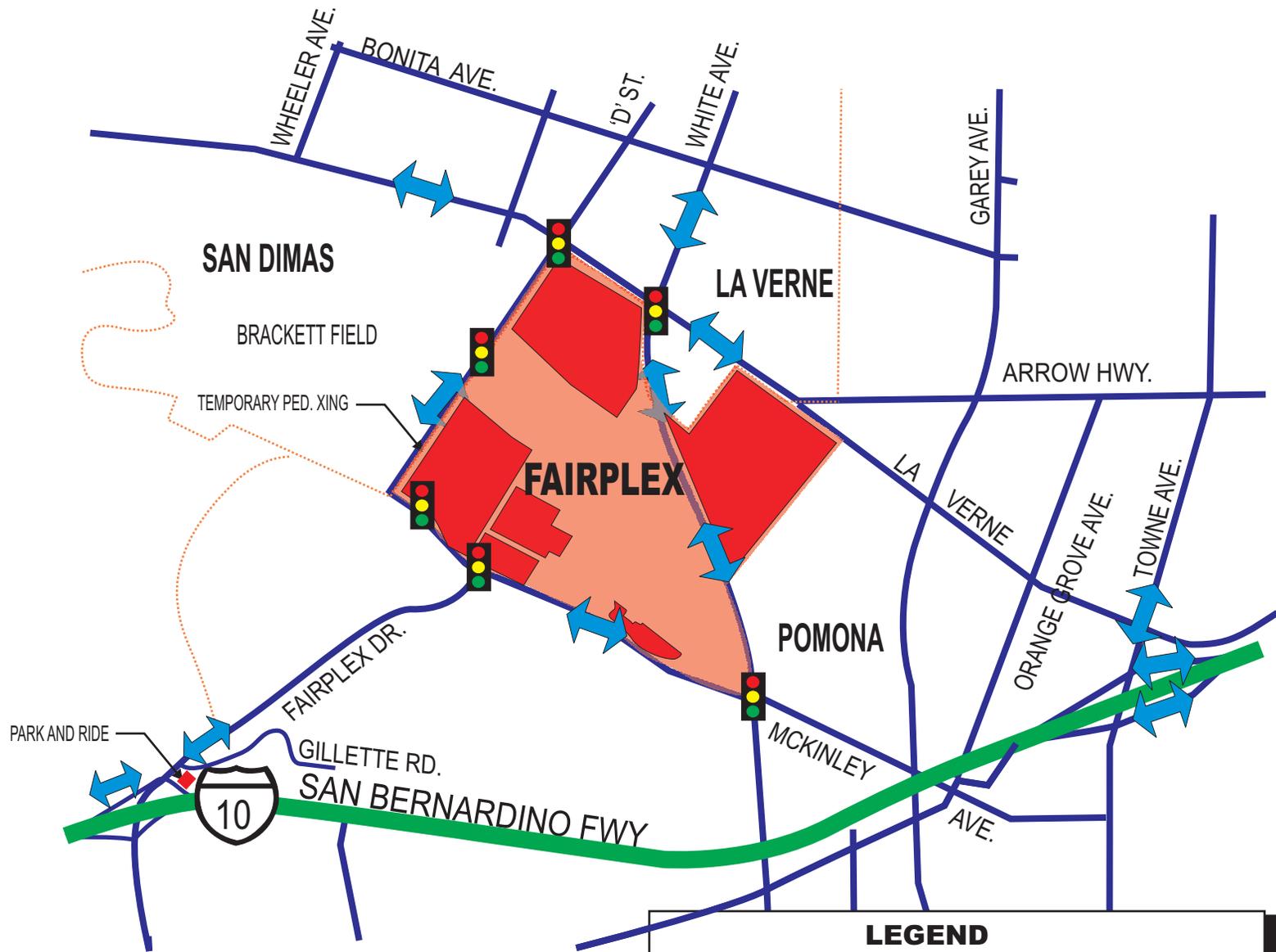
## 2.2 Traffic Counts

In order to compare the average non-event traffic volumes with event-related congestion in the Fairplex area, Average Daily Traffic (ADT) counts were conducted at eleven locations leading to the site. The ADT count locations listed below are on the main routes to the Fairplex, including locations near freeway access points. The ADT count locations are also illustrated graphically in **Figure 6** on the next page.

- ◆ I-10 & Fairplex Drive - Westbound On-Ramp
- ◆ Fairplex Drive, north of I-10 ramps and Gillette Road (park & ride entrance)
- ◆ I-10 & Orange Grove/Garey - Eastbound On-Ramp
- ◆ I-10 & Towne Avenue - Eastbound On-Ramp
- ◆ I-10 & Towne Avenue - Westbound Off-Ramp
- ◆ Towne Avenue, north of I-10, south of La Verne Avenue
- ◆ McKinley Avenue, West of Midvale Drive (West of Gate 1)
- ◆ White Avenue, North of McKinley Avenue
- ◆ White Avenue, South of Arrow Highway
- ◆ White Avenue, South of Bonita Avenue (in La Verne)
- ◆ Arrow Highway, West of 'D' Street (in La Verne)

Additional counts were taken at the following two intersections to supplement the background traffic data.

- ◆ Fairplex Drive, South of Puddingstone Drive
- ◆ Arrow Highway, East of White Avenue



**LEGEND**

ARTERIALS / ROADS	CITY LIMITS
FREEWAYS	COUNT LOCATION
PARKING AREAS	TRAFFIC CONTROL

**FIGURE 6:  
AVERAGE DAILY TRAFFIC COUNT LOCATIONS**



Collection of traffic data targeted baseline traffic levels around the Fairplex, as well as traffic levels during the days of highest attendance at the Fair. The counts were conducted on consecutive days during the 2000 Los Angeles County Fair, beginning on Thursday, September 28<sup>th</sup> and ending on Sunday, October 1<sup>st</sup>. This period encompassed the final four days of the 2000 Fair season.

For comparison purposes, baseline counts were also taken in 2001, on the dates of Wednesday, March 7<sup>th</sup> and Thursday, March 8<sup>th</sup> 2001. On these survey dates, no major events were occurring at the Fairplex.

Detailed count sheets for both September 2000 and March 2001 count periods are included in **Appendix A** of this document. **Table 1**, below, provides a comparison of ADT levels on roadways adjacent to the Fairplex, between typical weekday conditions and Fair conditions. The cumulative ADT from each data collection period was used in the table for comparison purposes.

Roadway Location	Average Non-Event ADT	Average ADT During 2000 Fair	Change in ADT during 2000 Fair
I-10 & Fairplex Dr. - Westbound On-Ramp	4,710	12,827	+172%
Fairplex Dr., North of I-10 Ramps and Gillette Road (Park & Ride)	13,266	36,428	+175%
I-10 & Orange Grove/Garey - Eastbound On-Ramp	12,806	14,456	+13%
I-10 & Towne Avenue - Eastbound On-Ramp	9,204	7,640	-17%
I-10 & Towne Avenue - Westbound Off-Ramp	8,042	8,115	+1%
Towne Avenue, North of I-10, South of La Verne Avenue	27,650	24,045	-13%
McKinley Avenue, West of Midvale Drive	5,983	16,635	+178%
White Avenue, North of McKinley Avenue	16,695	32,853	+97%
White Avenue, South of Arrow Highway	16,551	29,807	+80%
White Avenue, South of Bonita Avenue	16,224	16,104	-1%
Arrow Highway, West of 'D' Street	27,380	29,274	+7%
*Fairplex Drive, South of Puddingstone Drive	11,702	-	-
*Arrow Highway, East of White Avenue	26,605	-	-

*Source: Kimley-Horn and Associates, Inc., September 28 - October 1, 2000 & March 7-8, 2001*  
*\* Non-event ADT from supplemental (June 2001) count data, Kimley-Horn and Associates*

Table 1 indicates that locations adjacent to the Fairplex (Fairplex Drive, White Avenue and McKinley Avenue) experience an increase in traffic during an event (such as the Fair) that is near double the typical weekday traffic. Those roadway segments located further away from the Fairplex exhibit little change, or an actual reduction, in the amount of traffic during the Fair. This can be attributed partially to the tendency for drivers with knowledge of the special event (the Fair) to choose alternative routes, and/or the difference between weekday commuter traffic and weekend non-commute event traffic.



### 3.0 TRAFFIC CONDITIONS

#### 3.1 Traffic Impact Study - Paradise Park Project

In July of 1998, Linscott, Law and Greenspan Engineers prepared a Traffic Impact Study for the Paradise Park Project. Discussion of this study has been included in this project deliverable as a good overview of existing roadway conditions, as well as traffic volumes and roadway capacity issues pertinent to potential future development of the Fairplex facilities. Selected data from this study has been updated via new traffic counts and analysis by Kimley-Horn.

This study evaluated the potential impacts of a proposed 460,000 square-foot building designated for retail and entertainment uses. The project was proposed to be located within the existing Fairplex site, directly south of the racetrack and north of McKinley Avenue. Data from this study was used to better understand background conditions in and around Fairplex.

As part of the Paradise Park Traffic Impact Study, 22 intersections in the vicinity of the Fairplex were analyzed, including all of the intersections of Fairplex gates with surrounding roadways. The analysis was conducted to determine existing conditions during a typical weekday PM peak hour as well as during a weekend peak hour when an NHRA Winter National event, an Asian American Expo, and a Los Angeles Guitar Show were being held concurrently at Fairplex. It was estimated that approximately 80,000 patrons visited these shows during the weekend. A Level of Service (LOS) analysis was conducted using the Intersection Capacity Utilization (ICU) method at the study intersections and site access points. The report also presented a list of recommended improvements to reduce traffic impacts.

**Table 2** provides a list of study area intersections studied in the Paradise Park project that experienced an increase in peak volumes during a weekday compared to a typical weekday peak hour. All other study intersections had a decrease in the peak hour traffic volumes on the weekend compared to the weekday PM peak hour.

Location	Weekday - PM Peak - Total Intersection Volume *	Weekend - Peak Hour Total Intersection Volume	Percent of Increase in Volume
Fairplex Drive and I-10 Freeway WB Ramps	2,055	2,373	15%
Fairplex Drive and McKinley Avenue	1,731	2,919	69%
White Avenue and Gate 14	1,293	3,844	197%
White Avenue and McKinley Avenue	1,728	2,611	51%
White Avenue and I-10 Freeway WB On-Ramp	1,353	2,241	66%
White Avenue and Burdick Drive/Kenoak Place	1,316	1,461	11%

\* Volume figures represent the total of all intersection approach volumes.  
Source: Traffic Impact Study for the Paradise Park Project, LLG, July 1998



*Varying Fairplex Event Activity and Intersection Level of Service*

**Table 3** indicates the Fairplex area intersections LOS under major event conditions at the Fairplex. Unacceptable LOS values of E or F are indicated in bold text. Two intersections operate at unacceptable LOS during the weekday p.m. peak, while two intersections operate at unacceptable LOS during the weekend peak. The intersection of White Avenue & Arrow Highway operates at unacceptable LOS during both the weekday and weekend peak periods.

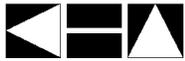
Additional 2001 count data was obtained at a [sampling of intersections that were indicated to operate at LOS D or worse](#) in Table 3 and are presented in **Table 4**.

<b>Table 3: Intersection Level of Service With Major Fairplex Events</b>		
INTERSECTION LOCATION	WEEKDAY PM PEAK LOS	WEEKEND PEAK LOS
Fairplex Drive & I-10 Freeway Westbound Ramps	A	A
Fairplex Drive & I-10 Freeway Eastbound Ramps	A	B
Fairplex Drive & Arrow Highway *	D	A
Fairplex Drive & Fairplex Drive West/McKinley Avenue	A	A
Fairplex Drive & McKinley Avenue	B	B
White Avenue & Bonita Avenue *	<b>F</b>	D
White Avenue & Arrow Highway *	<b>E</b>	<b>F</b>
White Avenue & Gate 14 *	A	<b>F</b>
White Avenue & McKinley Avenue	A	B
White Avenue & I-10 Freeway Westbound On-Ramp	A	C
White Avenue & Burdick Drive/Kenoak Place	A	B
White Avenue & Orange Grove Avenue	A	B
I-10 Freeway Eastbound Off-Ramp & Burdick Drive	A	A
Arrow Highway & La Verne Avenue	A	A
Garey Avenue & La Verne Avenue *	D	D
Garey Avenue & McKinley Avenue	A	B
Garey Avenue & Orange Grove Avenue	C	A
North Orange Grove Avenue & I-10 Freeway Westbound Off-Ramp/Artesia Street	A	A
North Orange Grove Avenue & McKinley Avenue/I-10 Freeway Westbound On-Ramp	D	A

*Source: Traffic Impact Study for the Paradise Park Project, LLG, July 1998*

*LOS values in **bold** font indicate unacceptable Levels of Service.*

*\* These intersections have been analyzed with little or no event traffic for comparison purposes. Results are provided in Table 4 of this report.*



*New Analysis of Selected Intersections*

There are five intersections with unacceptable LOS indicated in Table 3. However, these intersections return to acceptable LOS during minimal event activity at Fairplex. **Table 4** provides a comparison between event and non-event conditions at these selected intersections.

<b>Table 4 : Comparison of Event and Non-Event Intersection Impacts</b>		
INTERSECTION LOCATION	WEEKDAY PM PEAK LOS - MAJOR EVENT	WEEKDAY PM PEAK LOS - MINIMAL EVENT *
Fairplex Drive & Arrow Highway	D	B
White Avenue & Bonita Avenue	F	B
White Avenue & Arrow Highway	E	C
White Avenue & Gate 14	A	A **
Garey Avenue & La Verne Avenue	D	A

*\* Based upon intersection turn movement counts of March 7, 2001.  
"Major event" LOS values are carried over from Table 3 of this report.*

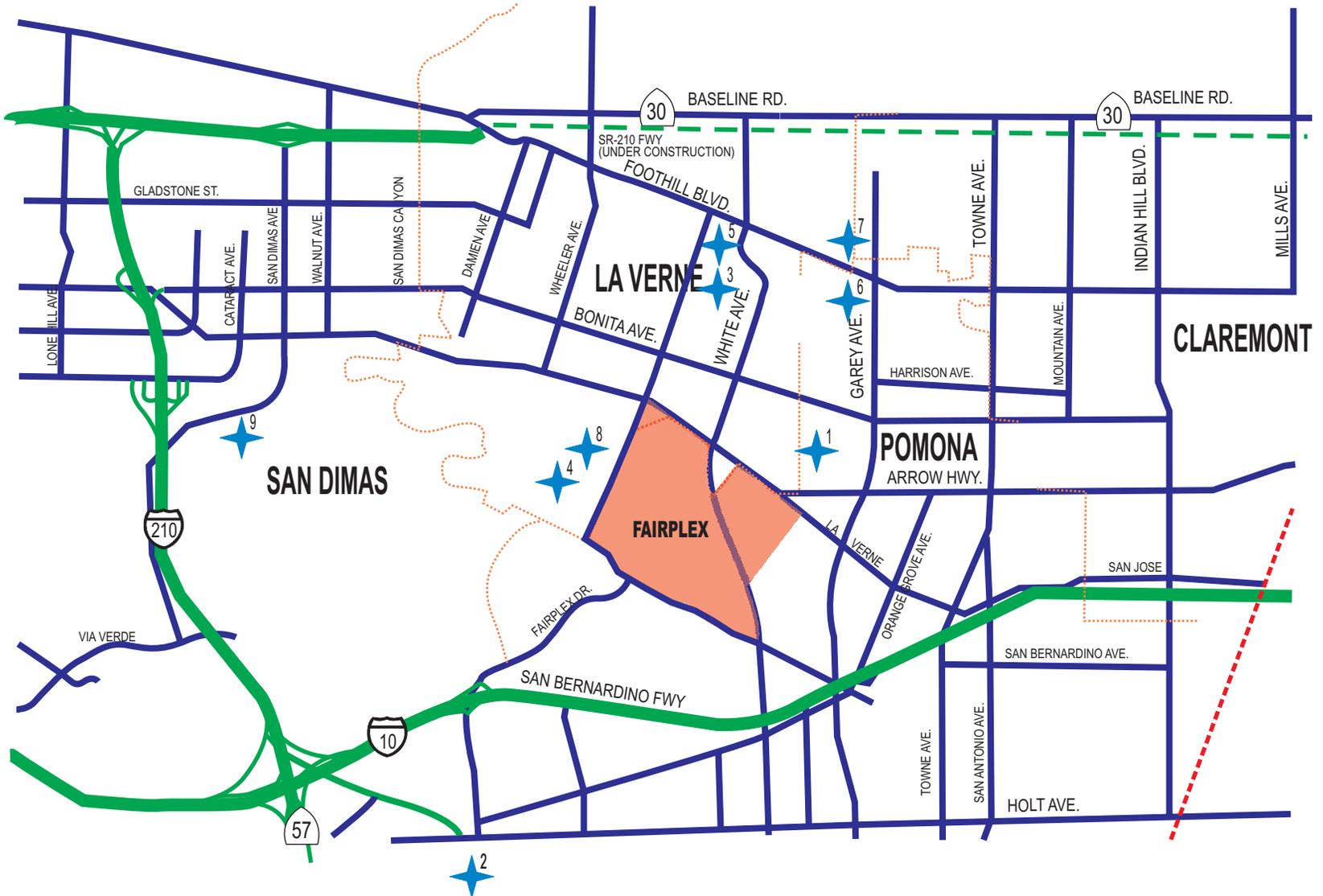
*\*\* The unsignalized White Avenue / Gate 14 intersection has poor LOS during major Fairplex events. This intersection would have an LOS of A during minimal event traffic, as Gate 14 only operates during medium to large events.*

Additional weekend intersection turn movement counts were conducted at the White Avenue / Gate 14 intersection on Saturday, June 30<sup>th</sup> during medium-sized events at the exhibition halls. Analysis using the Highway Capacity Manual Unsignalized Method yielded an average vehicle delay of 6.2 at the westbound approach (vehicles exiting Gate 14). The worst case movement has a computed vehicle delay of 25.9 seconds, falling within an LOS of D. The analysis in Table 3 indicated an LOS of F for the intersection, although with a different mix of events in operation at Fairplex.

*Development Projects in Vicinity*

The development and operation of the Fairplex must occur in conjunction with the development of the surrounding areas. The Paradise Park Traffic Impact Study identified associated impacts from planned development projects in the area surrounding Fairplex. A review of this information is of value to this deliverable, as it provides background on current and pending development activity in the vicinity of the Fairplex.

While not all of these planned developments will be constructed, the potential traffic from them provides a base future level of traffic for the roadway network in and around the Fairplex. The locations of these projects in relation to the Fairplex are illustrated in **Figure 7**. A list of the project locations is provided in **Table 5**.



LEGEND	
	ARTERIALS / ROADS
	FREEWAYS
	SR-210 (under construction)
	COUNTY LIMITS
	CITY LIMITS
	PROJECT LOCATIONS

**FIGURE 7: PLANNED PROJECTS IN FAIRPLEX VICINITY**



**Table 5: Proposed Development Projects  
In The Vicinity of The Fairplex**

LOCATION	LAND USE	SIZE
1. Pomona - 2525 Supply Street	Manufacturing	92,000 sq.ft.
2. Pomona - 71/Mission, between 2 <sup>nd</sup> Street and Oak Avenue	Furniture Manufacturing	728,000 sq.ft.
3. La Verne – Bonita High School	Skateboard Park	9,000 sq.ft.
4. San Dimas - 1975 Puddingstone Drive	Industrial	21,000 sq.ft.
5. Pomona - 3355 White Avenue	Post Office	34,000 sq.ft.
6. Pomona - 1480 Foothill Blvd.	Retail Rite-Aid	17,000 sq.ft.
7. Pomona - 2955 Foothill Blvd.	Senior Apartment	110 units
8. Pomona - 1968 Yeager Avenue	Industrial/Business Park	277.1 Acres
9. Pomona - Frank G. Bonelli Regional Park	Raging Waters Expansion	24.6 Acres

*Source: Traffic Impact Study for the Paradise Park Project, LLG, July 1998*

### 3.2 Fairplex Patron Origin/Destination Study

The Fairplex administration is currently conducting a study to define the cities in which its visitors live. Demographic information collected by the Fairplex administration during the 2000 Los Angeles County Fair indicates that 60% of the Fair patrons live within a 10-mile radius of the Fairplex, and that 80% live within a 20-mile radius of the Fairplex. The Fairplex staff believes that understanding this distribution will be crucial in developing information dissemination methods for the Fairplex Traffic Management Plan.

## 4.0 FAIRPLEX EVENT COORDINATION

### 4.1 Traffic Management Responsibilities

Coordination of traffic management for major events takes place between the Fairplex administration and three local entities. The following paragraphs provide a brief description of each agency’s role:

- ◆ **The City of Pomona:** The Public Works Department provides in-field monitoring and management of traffic control issues on the streets surrounding the Fairplex grounds during major events. Transportation staff is assigned to the Fairplex as needed to coordinate manual signal control and temporary intersection reconfigurations.
- ◆ **Pomona Police Department:** A sergeant is assigned to a patrol around the Fairplex grounds during major events. The sergeant manages a team of four to twelve traffic officers, depending on the



event size and the day of the week. The Department manages traffic for an average of four events each month, and meets with Fairplex administration on a weekly basis to plan for upcoming events.

- ◆ **La Verne Police Department:** Police personnel are assigned to monitor traffic and to control signals on Arrow Highway during major events (such as the Fair). This does not occur as frequently as the Pomona Police Department's efforts around the Fairplex. Upgraded signals and increased capacity (six travel lanes) on Arrow Highway have lessened the impact of Fair events on La Verne roadways. Traffic from the Fairplex on La Verne collector and residential streets is a concern of the City.

#### 4.2 The Los Angeles County Fair Parking Management

The Los Angeles County Fair is held each year for a two-and-a-half week period. The 2000 Fair event was held from September 9th to September 26<sup>th</sup>. Major concerts and other special events are featured nightly as part of general admission. There is a carnival, various exhibits, horse racing with on-site betting, open-air markets, and concession stands. Total attendance during the 2000 Fair event was estimated to be around 1.3 million people. Approximately 91,000 school-age children attend the Fair each year.

As part of the effort to develop the Fairplex Traffic Management Plan, several project coordination meetings were held with key individuals at Fairplex and at the police departments of Pomona and La Verne. Data obtained from these meetings included the following:

##### Use of Gates and Parking Lots During the Los Angeles County Fair:

- ◆ There is on-site parking for approximately 36,000 vehicles in three main lots. The White Avenue lot, east of White Avenue, holds approximately 11,000 vehicles. The main lot, at the west edge of the Fairplex site, can accommodate approximately 22,000 vehicles. The hotel lot, at the east edge of the Fairplex site, has roughly 1,200 parking spaces. The Brackett Field lot, west of Fairplex Drive, can hold approximately 1,400 vehicles. At Gate 1, an administration parking area exists that can accommodate 250 vehicles.
- ◆ Horse racing patrons enter through Gate 17 at Fairplex Drive/McKinley Avenue.
- ◆ Gate 15, on Arrow Highway, is only open during the Fair weekends.
- ◆ Gate 12, at the equestrian center on White Avenue, is occasionally used as an exit-only point during the Fair.
- ◆ The Gate at Arrow Highway and La Verne Avenue is only opened when more than 100,000 persons are expected to attend a particular event.
- ◆ Gate 17, on Fairplex Drive, can be configured with as many as fourteen lanes for parking payment.
- ◆ Gate 14, on White Avenue, has as many as eight lanes available for parking payment.
- ◆ During major events, parking attendants are utilized in each parking lot to expedite loading and unloading. Parking attendants are not required during minor events.
- ◆ During the Los Angeles County Fair, three sergeants on different shifts manage Pomona Police Department personnel. Police department staff meets each morning with Fairplex staff during the Fair.
- ◆ Twelve Pomona Police Department officers are stationed at area intersections during Fair weekends and four officers on Fair weekdays.



### 4.3 Intersection Traffic Control During Fair

During the Fair, the City of Pomona Police Department provides a mix of manual signal controller adjustment and officer control for at least five intersections, depending upon traffic conditions and the level of control required. The level of control is implemented as necessary, based on congestion levels. The following methods of traffic control are employed at the intersections when necessary:

**Fairplex Drive and McKinley Avenue:** This intersection is staffed with Pomona Police personnel, and lanes are reconfigured with traffic cones to maximize the flow on Fairplex Drive to and from the freeway with the Fairplex ingress and egress points near Gate 17.

**White Avenue and McKinley Avenue:** During the Fair, this intersection is manually controlled by Pomona Police personnel who control the intersection as well as reconfigure the lanes with cones as needed. The northbound left turn lane is usually closed on peak days to minimize back-ups on McKinley Drive, and to streamline the northbound flows on White Avenue to Gate 14.

**White Avenue and Burdick Drive:** This intersection is reconfigured with cones during Fair events only. The geometry of this stop sign controlled intersection is temporarily modified so that eastbound traffic from the I-10 & White Ave. exit can transition from eastbound Burdick to northbound White with no traffic conflicts. One lane of the two northbound White Avenue through lanes is left open for northbound traffic coming from locations further south on White Avenue.

**I-10 Ramps and Fairplex Drive:** The eastbound and westbound off-ramp intersections with Fairplex Drive are staffed with Pomona Police personnel during Fair events for purposes of signal monitoring and manual signal control as needed during Fair weekends. If traffic queues on the off ramps progresses toward the freeway mainline, CHP officers coordinate with the Pomona Police Department and Caltrans to manually control the intersection, or to temporarily modify the signal timing.

**Temporary Pedestrian Crossing on Fairplex Drive:** This temporary crosswalk, near the Brackett field entrance, is staffed by Pomona Police personnel when the east side of Brackett Field (a general aviation airport) is used for overflow Fair parking. This is generally necessary during one or two weekend afternoons during each Fair season.

### 4.4 Other Major Events at Fairplex

#### National Hot Rod Association (NHRA) Events

The Fairplex is the home of the Southern California NHRA Finals. There is also a NHRA Motorsport Museum on-site. There is a ¼ mile drag strip track and a 2.5-mile vehicle road course on-site with grandstand seating for up to 40,000 people. The Fairplex has been able to park as many as 13,000 cars for a NHRA event. Parking control and management is more difficult during the NHRA events because the actual event course, the end of the drag strip, and crew equipment encompasses some of the area of the main parking lot at Gate 17. Gate 15 on Arrow Highway is used as a service gate during NHRA events. Overflow traffic from Fairplex Drive is directed east on McKinley Ave. to Gate 14 off White Avenue.



## Festivals and Shows

Grandstand and box seating at the Fairplex arena can hold 10,000 people for a standard event, but can be expanded to handle 30,000. Fairplex also holds a variety of Trade Shows, Consumer Shows, Horse Shows, 4H shows, US Naturalization Ceremonies and is the site for numerous National Professional Exams. Incoming vehicles are encouraged via traffic controls to utilize Gate 14 parking for events in the pavilion and arena area of the Fair (East side of the site). Access to the Fairplex grounds depends on the location of the show or event.

The Fairplex hosts between 200 to 300 shows and events per year. With the addition of new Building 8A in the next two years, the number of events held in the Pavilion is expected to increase. The additional events would be small events (under 1,000 attendees per event).

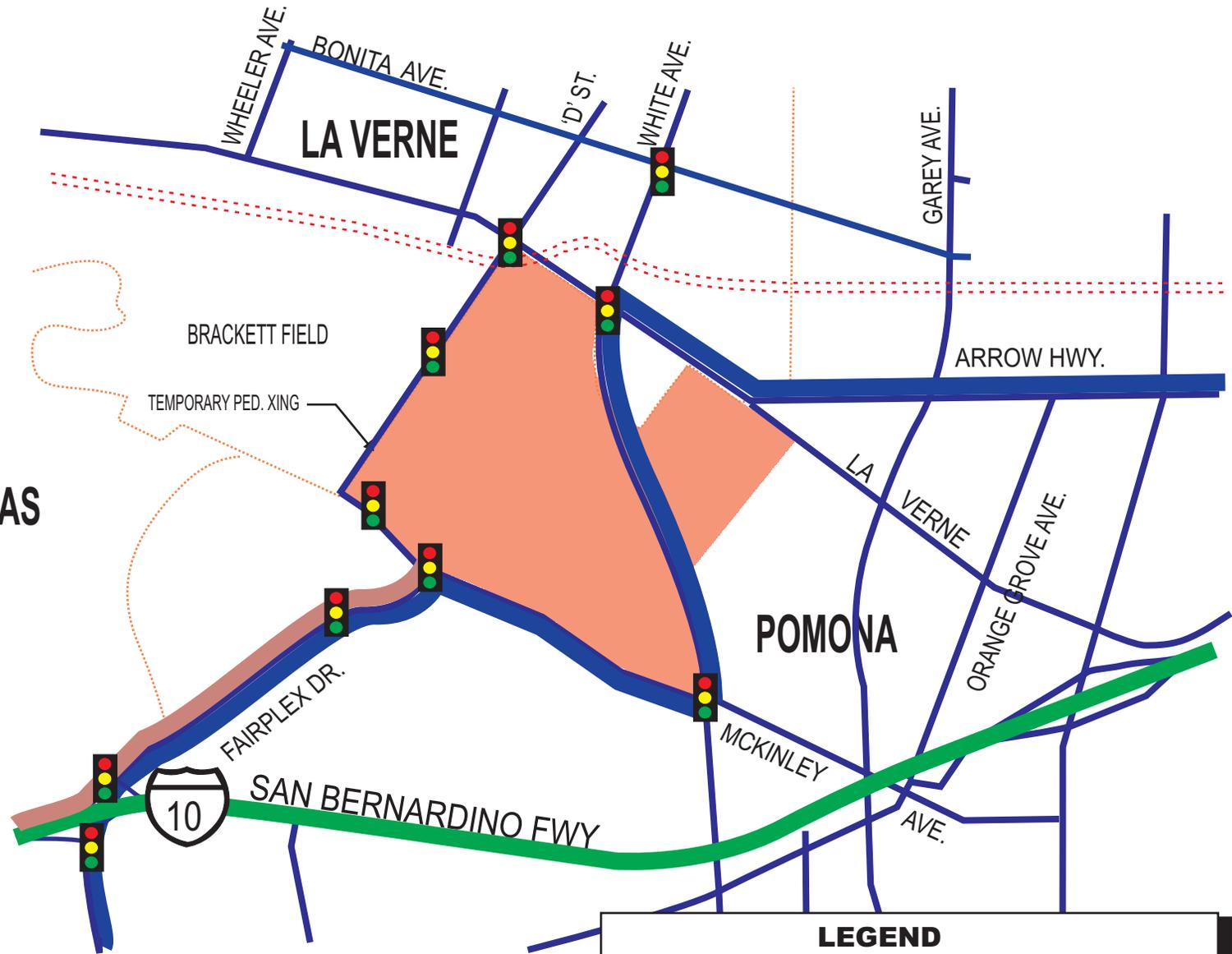
## **5.0 TRANSIT FACILITY AND ROUTE LOCATIONS**

A local Foothill Transit service (Line 479) provides daily service to the Fairplex, along its route between Cal Poly, northern Pomona, Claremont, and Montclair. The line runs on a 30-minute headway during peak periods, and on a 60-minute headway during off-peak times and weekends.

During the Fair event, the headway of Line 479 is decreased to an average of five minutes between trips along its entire route. A special service is provided from the express route Line 480 during weekends of the Fair. Line 480 normally travels a route through downtown Los Angeles, El Monte, West Covina, Pomona, Claremont, and Montclair. During weekend days of the Fair, extra trips are added to the Line, and service from Los Angeles deviates from the normal Pomona route and ends at Fairplex inside of Gate 19. Return service to Los Angeles via the same route is also provided.

Foothill Transit runs a special express route as an alternate to Line 480 (Los Angeles-El Monte-West Covina-Pomona-Montclair) during the Los Angeles County Fair. Heading eastward from Los Angeles, the Line diverts from its regular route before Pomona, and terminates at Fairplex. The service is operated on weekends of the Fair, and schedules are tailored to the operating hours of the Fair. Line 479 (Cal Poly-Pomona-Montclair) runs its regular route along Fairplex Dr., McKinley Ave., White Ave., and Arrow Hwy during all Fairplex events, but is operated at a higher frequency during certain evenings and weekends of the Fair.

Metrolink commuter rail provides service during the weekends of the Fair only, with an average daily ridership of 500 people. The San Bernardino Line is located adjacent to the northwest corner of the site. This line provides service to San Bernardino on the east, and downtown Los Angeles on the west, with stops in between. The Metrolink service to the Fair is provided via the regular Metrolink weekend schedule. A temporary platform is provided adjacent to the Fairplex site for loading and unloading of passengers during the Fair. The Fairplex provides a shuttle from this platform to ticket gates on the west side of the Fairplex. **Figure 8**, on the following page, illustrates the locations of these transit services in relation to the Fairplex site.



**LEGEND**

ARTERIALS / ROADS	CITY LIMITS
FREEWAYS	FOOTHILL LINE 479
METROLINK LINE	FOOTHILL LINE 480 *
TRAFFIC CONTROL	* SPECIAL SERVICE DURING FAIR

**FIGURE 8:  
TRANSIT FACILITIES IN FAIRPLEX VICINITY**



## 6.0 CURRENT AND PLANNED TRAFFIC CONTROL IMPROVEMENTS

### 6.1 Current Advanced Traffic Control Systems

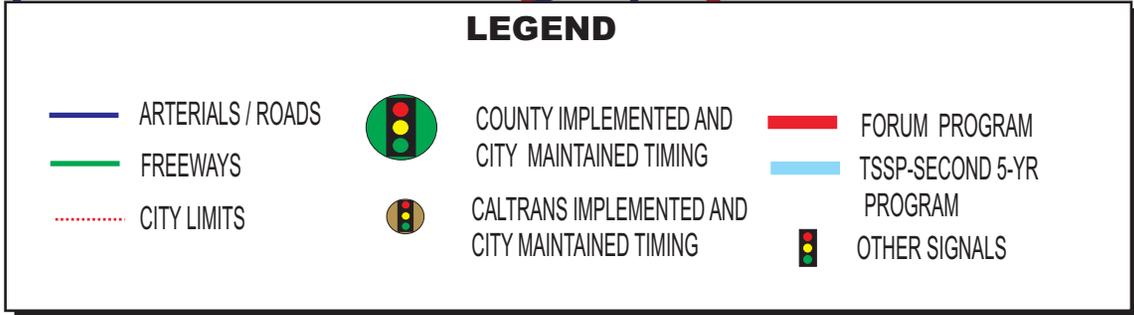
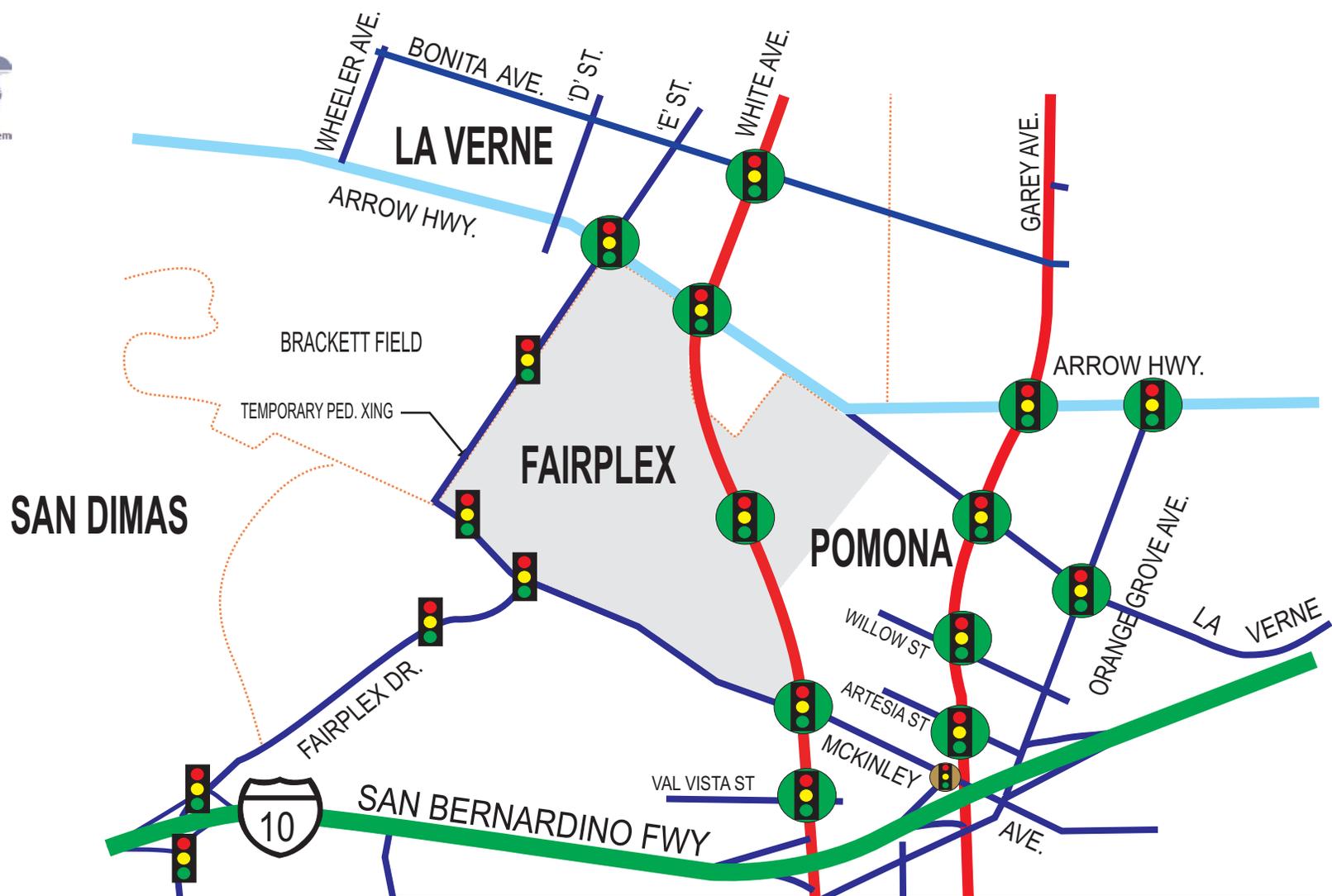
None of the cities adjacent to the Fairplex utilize video surveillance (CCTV) or vehicular speed detection systems (video image detectors or loops) to help manage traffic demands or incidents on their roadways. The cities in the vicinity of Fairplex have also indicated that they do not use data modeling systems, and they do not collect traffic modeling data from regional agencies. This limits the cities ability to forecast future traffic conditions in and around the Fairplex area.

The Los Angeles County Department of Public Works has been implementing a Traffic Signal Synchronization Program (TSSP) throughout certain areas of the County, including the Pomona valley Forum area. The TSSP improvements include intersection and signal controller upgrades, signal timing and in some areas, installation of new traffic signals. In the vicinity of the Fairplex, Arrow Highway is part of the County's second "five year TSSP". **Figure 9** illustrates the County's TSSP routes and intersections adjacent to the Fairplex.

Caltrans operates Changeable Message Signs (CMS) on nearby freeways. These signs are part of a Countywide incident management program for the freeway system. The system is not automatic and relies on an operator to call-up preset messages or to create custom messages that are then activated at specific signs on the network. The operator relies on data from CHP traffic reports, and from roadbed speed sensors that are in use on most freeway corridors in the region. The Caltrans District 7 Traffic Management Center monitors and analyzes the speed sensor network and operates the CMS components.

### 6.2 Planned Improvement Projects

In 1995, the Los Angeles County Metropolitan Transportation Authority (MTA) completed the Pomona Valley Forum Signal Synchronization Study. The study identified an 8-year Transportation Systems Management (TSM) program for the Pomona Valley. The TSM recommendations ranged from time-based signal coordination to development of a Fairplex Area Traffic Management Plan and development of a Regional Traffic management Center (TMC). In the vicinity of the Fairplex White Avenue and Garey Avenue are identified as Forum Program routes. Implementation of an Advanced Traffic Management System (ATMS) was identified in the 1995 Feasibility study, and will occur as part of the PVITS project and the Fairplex Traffic Management Plan.



**FIGURE 9:  
FAIRPLEX AREA ADVANCED TRAFFIC CONTROL SYSTEMS**



## 7.0 FINDINGS OF PHYSICAL CONSTRAINTS

### 7.1 Constraints at Freeway Ramp / Arterial Intersections

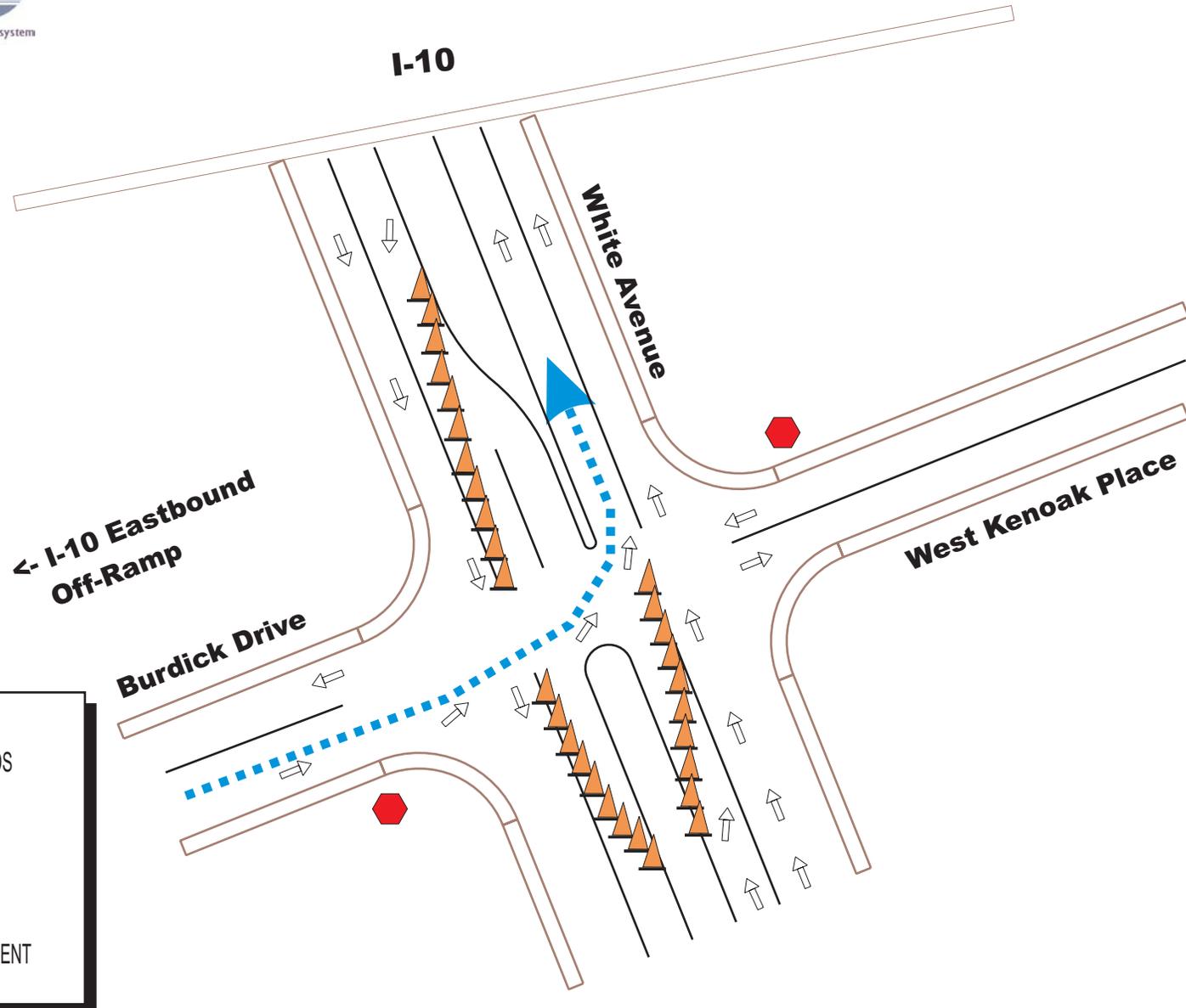
#### Limited Access at White Avenue.

- ◆ There is currently one eastbound off-ramp and one westbound on-ramp at White Avenue and the I-10 freeway.
- ◆ No eastbound on-ramp or westbound off-ramp is provided at White Avenue.
- ◆ White Avenue is a more direct route to the east side of the Fairplex and to Gate 14, but the ramp configuration during congested hours makes it very difficult for traffic bound for the Fairplex to access White Avenue.
  - Traffic exiting the freeway at White Avenue must first pass through the “T” intersection of Burdick Drive with the eastbound off-ramp.
  - Once on White Avenue, traffic headed to the Fairplex must make an unprotected left turn across four lanes of traffic to access northbound White Avenue. This movement is difficult given that the “T” intersection of Burdick Drive and White Avenue is unsignalized with stop control on Burdick Drive.
- ◆ In-bound traffic could use Fairplex Drive or proceed to Garey Avenue to avoid the Burdick Drive / White Avenue intersection. However, White Avenue still provides the best access to events on the east side of the Fairplex

**Figure 10** indicates the temporary configuration of the Burdick Drive / White Avenue intersection during major events.



**White Avenue Temporary Reconfiguration  
Looking north towards underpass at I-10 freeway**



**FIGURE 10: TEMPORARY RECONFIGURATION -  
BURDICK DRIVE / WHITE AVENUE (EASTBOUND I-10 OFF-RAMP)**



## 7.2 Roadway Constraints on Routes to and from the Fairplex

### McKinley Avenue between Fairplex Drive and White Avenue

- ◆ McKinley Avenue provides one travel lane in each direction, with a two-way left-turn lane. Exclusive left-turn pockets at driveways and cross-streets are also provided and striped within this area.
- ◆ Event traffic gridlock on McKinley Avenue is usually heaviest toward the Fairplex prior to events, and away from the Fairplex after events. McKinley Avenue is extremely congested during major weekend events.
- ◆ Pomona Police Department staff often control traffic at the intersection of McKinley Avenue and White Avenue by manually over-riding the signal controller.
- ◆ The McKinley Avenue and White Avenue intersection becomes severely congested at the eastbound left turn, westbound right turn and northbound through movements.

The existing lane configuration of this intersection is included in Figure 4 of this report.

## 7.3 Intersection Constraints near the Fairplex Site

### White Avenue and Gate 14

- ◆ The current lane configuration at the Gate 14 intersection with White Avenue does not provide adequate capacity to accommodate the heavy inbound traffic volumes experienced during major events at the Fairplex.
- ◆ The northbound approach to this intersection consists of one through lane, one shared through/right turn lane, and one right turn lane.
- ◆ Based upon visual observations, right turn queues often form at the northbound approach. An additional dedicated right turn lane would improve the traffic flow at this approach, and would require widening.
- ◆ The southbound left turn traffic often conflicts with the southbound through movement. This is due to vehicles slowing to transition into the left turn lane, and long left turn queues exceeding the storage length of the turn pocket and encroaching into the southbound through lane.
- ◆ High northbound through-traffic volumes on White Avenue make it difficult for southbound traffic to make a left turn into Gate 14. The Pomona Police Department often temporarily closes this left-turn lane in order to restore through traffic operations on White Avenue. The construction of a traffic signal at this intersection would improve operations on White Avenue in the vicinity of Gate 14.

The existing lane configuration of this intersection is included in Figure 4 of this report.



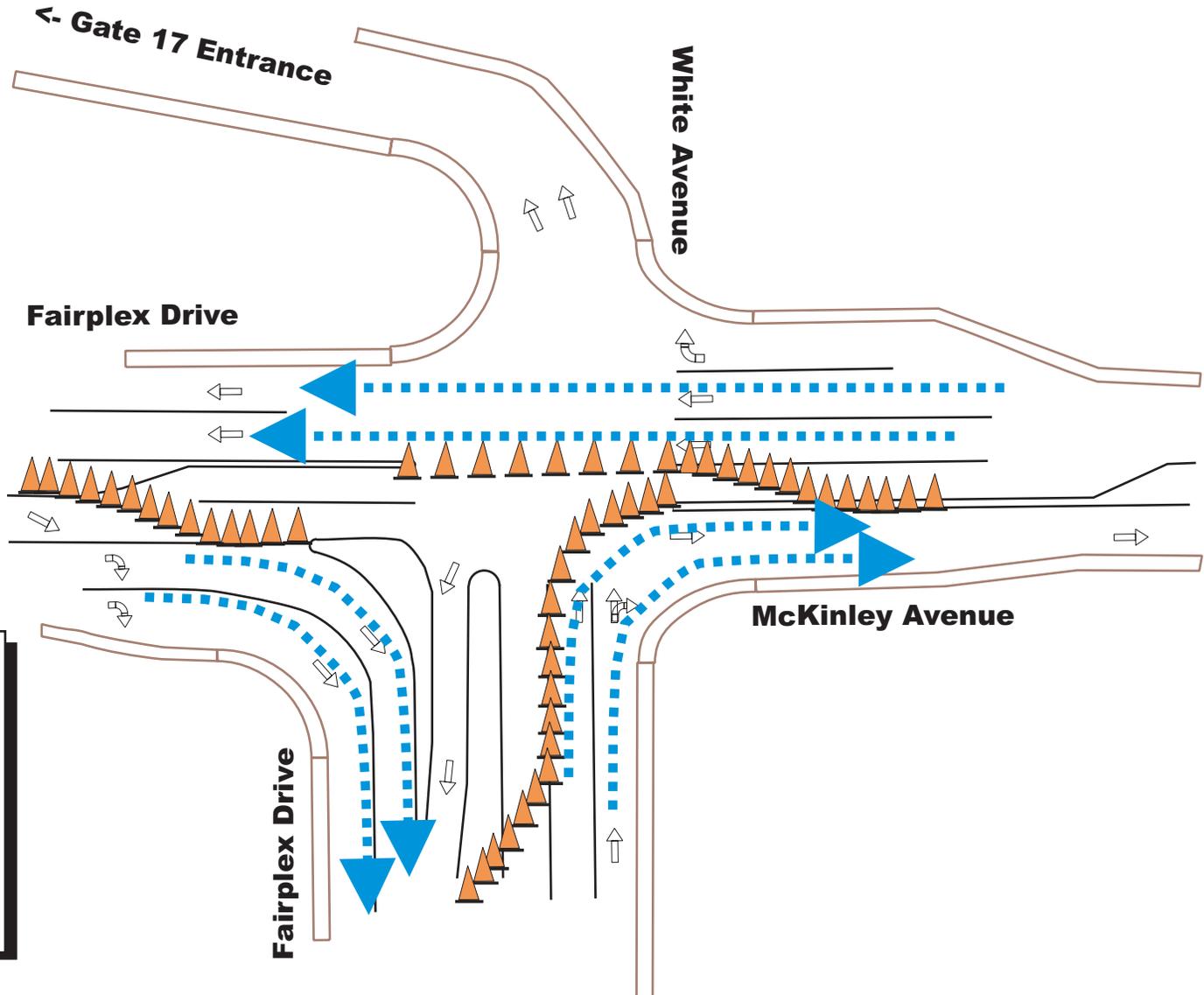
**Directional Sign at Gate 14  
White Avenue north of McKinley Avenue**



**White Avenue Lane Closure  
Looking north toward intersection with McKinley Avenue**

Fairplex Drive and McKinley Avenue:

- ◆ This intersection experiences heavy traffic flows during large events such as the Los Angeles County Fair, NHRA events and INS events.
- ◆ To accommodate this level of traffic during major events, this intersection is manually controlled and directed by two or three law enforcement personnel. The intersection is also reconfigured with traffic cones to direct eastbound traffic to a right-turn only movement toward the I-10 freeway ramps and to direct northbound traffic to a right-turn only movement toward Gate 1 and White Avenue. **Figure 11** illustrates this reconfiguration, This intersection provides direct access to Gate 17, the main parking gate at the Fairplex site.



**LEGEND**

- ARTERIALS / ROADS
- FREEWAYS
- ◈ TRAFFIC SIGNAL
- REGULAR TRAFFIC FLOW
- - - RESTRICTED MOVEMENT

**FIGURE 11: TEMPORARY RECONFIGURATION - FAIRPLEX DRIVE / MCKINLEY AVENUE (GATE 17 ENTRANCE)**



## 7.4 Constraints to Transit Service

Foothill Transit utilizes McKinley Avenue and White Avenue in order to serve local stops in the vicinity of the Fairplex. A popular point for access to the Fairplex is at Gate 1 on McKinley Avenue. Fairplex employees have access to the main administration building through Gate 1, and access to the main areas of the Fair is convenient from this point.

Foothill Transit vehicles must stop within a through traffic lane to serve the eastbound stop near Gate 1 on McKinley Avenue, and within a dedicated right turn lane to serve the westbound stop at the same location. These unimproved stops, without bus pullouts for transit vehicles, create an increased number of bottlenecks on this congested roadway.

## 8.0 CONCLUSIONS

Traffic operations and management of special event traffic and an understanding of the physical roadway constraints that are prominent on some roadways adjacent to Fairplex are described below.

- ◆ There are major traffic impacts from the Fairplex on surrounding roadways. The Los Angeles County Fair is not the only event that causes major traffic impacts.
- ◆ Under typical, non-event traffic conditions, all intersections and roadways near the Fairplex operate at acceptable Levels of Service.
- ◆ Physical roadway constraints should be mitigated for effective traffic management at the I-10 & White Avenue interchange, and on McKinley Avenue on the south side of the Fairplex site.
- ◆ Any proposed improvements must consider potential impacts to the adjacent residential areas.

The next steps in the development of the Fairplex Traffic Management Plan is the delivery of the Improvement Recommendations, Events, and Costs document (Project Deliverable 3.6.1). The data and traffic control data collected during the inventory effort will be incorporated into these recommendations.

After review by the stakeholders and the Los Angeles County Department of Public Works, this upcoming document will be used to develop the Draft Fairplex Traffic Management Plan (Deliverable 3.7.1).



## Appendix A: FAIRPLEX TRAFFIC COUNT DATA

- ◆ Average Daily Traffic (ADT) Sheets  
September, 2000 Counts
- ◆ Average Daily Traffic (ADT) Sheets  
March, 2001 Counts
- ◆ Intersection Analysis Sheets -  
Based upon June, 2001 Counts