

December 20, 2004

# San Gabriel Valley Traffic Forum ATMS Improvement Project

## Operational Objectives

(Deliverable 2.1.2)

&

## System Needs

(Deliverable 2.2.2)

Final  
Revision 1

Prepared by:



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An AECOM Company

# **SAN GABRIEL VALLEY TRAFFIC FORUM**

## **OPERATIONAL OBJECTIVES (Deliverable 2.1.2) & SYSTEM NEEDS (Deliverable 2.2.2)**

**FINAL – Revision 1**

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**December 20<sup>th</sup>, 2004**

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## 1. INTRODUCTION

### 1.1 PROJECT OVERVIEW

#### 1.1.1 LA County Traffic Forums

A key element of the Los Angeles County Metropolitan Transportation Authority's (MTA) planning process is the Long Range Transportation Plan (LRTP). The LRTP proactively defines the transportation network vision, objectives, needs, and challenges over a 25-year period for Los Angeles County. A key component of the LRTP is the Traffic System Management (TSM) program that defines the MTA's support for Intelligent Transportation Systems (ITS) improvements on Regional arterials to improve traffic flow and enhance arterial capacity in a cost-effective way where roadway widening is not possible. The TSM Program consists of four (4) Tiers (levels) of improvement:

- Tier 1 – Conventional traffic engineering improvements
  - Complete time-based coordination (TBC) traffic signal synchronization along major arterials
  - Functional intersection improvements to upgrade each signal to current standards
  - Installation of full traffic actuation and detection
- Tier 2 – Transit preferential treatment and Bus Signal Priority (BSP) systems
- Tier 3 – Computerized Advanced Traffic Management Systems (ATMS)
  - Provide Corridor-level control and monitoring capabilities
  - Implement Traffic Control System (TCS) and Traffic Management Center (TMC) in centralized location
  - Install communications to traffic signals
- Tier 4 – ITS improvements
  - Multi-Agency system integration
  - Establish Countywide Information Exchange Network (IEN) workstations at each affected Agency
  - Establish Sub-Regional TMCs
  - Implement advanced communications technology
  - Deploy other advanced ITS elements (e.g., CCTV, HAR, HAT, CMS, etc.)

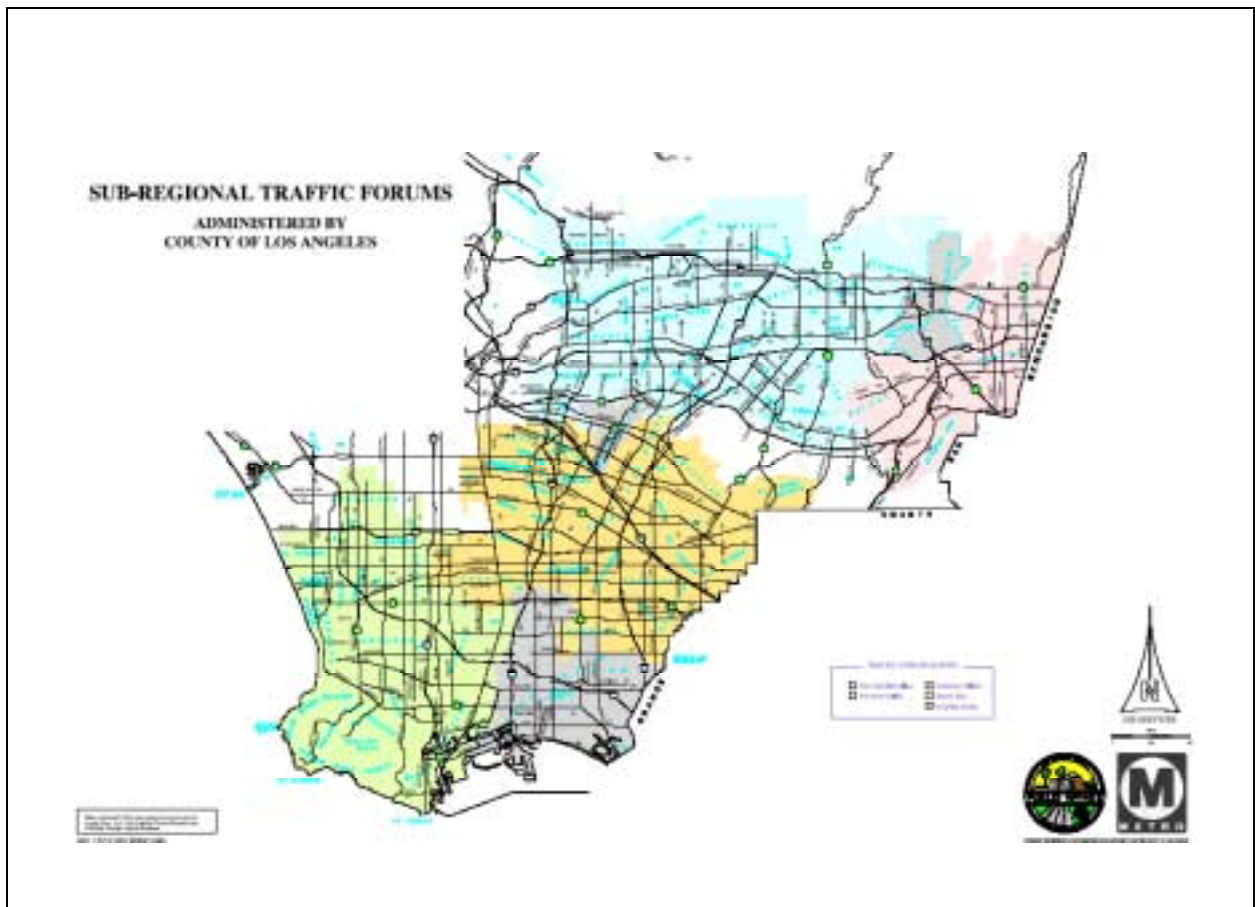
There are five (5) Regional Traffic Forums participating in the MTA TSM program:

- San Gabriel Valley Signal Synchronization Operation and Maintenance Pilot Project
  - I-210 Corridor
  - 10 Local Agencies
- Gateway Cities Signal Synchronization and Bus Speed Improvements Project
  - I-105 Corridor
  - I-5 Telegraph Road Corridor
  - I-710 Corridor
  - 26 Local Agencies

- South Bay Regional Traffic Forum
  - Parts II & III
  - 18 Local Agencies
- Pomona Valley Forum/Route 60 Corridor
  - Fairplex Traffic Management Plan
  - 7 Local Agencies
- San Gabriel Valley Traffic forum
  - I-210 & I-10 Corridors
  - 24 Local Agencies

These Forums cover 2/3 of Los Angeles County outside the City of Los Angeles borders as shown in Exhibit 1.1. The Traffic Forums are managed by the Los Angeles County Department of Public Works (County), who assumed the lead role and began administration of the TSM program in 1995.

### Exhibit 1.1 – LA County Regional Traffic Forums



### **1.1.2 San Gabriel Valley Traffic Forum**

The goal of the San Gabriel Valley Traffic Forum (SGVTF) is to design, develop, and deploy an ATMS specifically tailored to each Agency's operations in the Corridor so that traffic signals can be synchronized and ITS systems integrated across jurisdictional boundaries. The SGVTF project focuses on the specific needs of each Agency to manage their ATMS and recommends improvements to field infrastructure (e.g., controllers, detection systems, communications, etc.) and centralized TCSs and/or TMCs to meet those requirements. When the SGVTF is successfully completed, each of the Agencies responsible for traffic signal operations will have full access to an ATMS that monitors and controls the traffic signals within their jurisdiction. In addition, Agencies will be able to synchronize their signals and exchange traffic information in real-time with neighboring Agencies. This will allow the Agencies to respond to recurrent and non-recurrent congestion in a coordinated fashion across jurisdictional boundaries.

The SGVTF project area ranges from Cities bordering the CA SR 110 and I-710 freeways to the west, I-210 freeway to the north, CA SR 57 freeway to the east, and the CA SR 60 freeway to the south. It encompasses 24 municipalities as well as unincorporated portions of LA County. The traffic signals in the Region are operated by many of the individual Agencies, County, and Caltrans District 7.

### **1.1.3 Countywide Information Exchange Network (IEN)**

Developed by the County, the Countywide Information Exchange Network (IEN) is the integrated system framework that connects all of the individual Agency ATMSs into a Regional network to support the operational goals identified above. As shown in Exhibit 1.2, the Countywide IEN supports traffic signal operations in three (3) levels:

- Local Level
  - Comprises day-to-day traffic signal operations and maintenance (O&M) activities carried out by the individual Agency
  - Includes activities such as signal timings, equipment monitoring, response to local traffic conditions and events, etc.
- Corridor Level
  - Supports inter-Agency coordination and joint signal operations within the particular Traffic Forum (or Sub-Region)
  - Includes activities such as signal coordination across jurisdictional boundaries, monitoring and exchange of local traffic data throughout the Corridor, joint response to traffic conditions, incidents, and events that affect more than one jurisdiction, etc.
- Regional Level
  - Permits arterials of Regional significance to be monitored, managed, and controlled as a single entity
  - Supports multi-Agency, cross-Corridor data exchange permitting a Countywide response to traffic conditions and major events



Facilitates communications between systems/Agencies not part of a Traffic Forum (e.g., Caltrans, LADOT, etc.). The SGVTF assumes the availability of the Countywide IEN at the Corridor and Regional levels. Therefore, the SGVTF project is focused on the selection of TCSs and the integration of those systems to the Countywide IEN at the local level. The eventual ATMS design for the SGVTF will take into account the interface to the IEN and its requirements at the Local level and encompass the following six (6) core components:

- ATMS and/or TCS (Individual Agency)
- Detection and Surveillance
- TMC and/or W/S Layouts (ATMS and/or IEN)
- Communications Network
- SGVTF Participation/Coordination (City-specific and/or SGVTF-Regional integration)
- Operations & Maintenance (O&M)

The Countywide IEN comprises the series of computer servers, communications, networks, graphical user interface (GUI) displays, etc. that integrates these components for the collection/transfer of data to support Corridor and Regional functions throughout LA County.

**Exhibit 1.2 – Countywide IEN**



## 1.2 PURPOSE OF DOCUMENT

This document represents the following deliverables:

- Deliverable 2.1.2 – Operational Objectives (Final)
- Deliverable 2.2.2 – System Needs (Final)

The above sub-tasks within the SGVTF's Task 2 – Preliminary/Conceptual Design were performed in parallel due to the close nature of the work activities involved within each.

This document presents the following information at a minimum for the SGVTF:

- Identifies each participating Agency
- Existing Conditions
  - Documents the existing field and central TCS infrastructure
  - Lists the major corridors/intersections experiencing traffic congestion
  - Presents a snapshot of each Agency's current traffic management operations
- Planned Operations
  - Discusses the operational objectives for each Agency
  - Identifies the prioritized system needs for each Agency (High/Medium/Low)
  - Documents any future plans for infrastructure expansion and/or updates
  - Identifies potential Early Deployment Opportunities for "fast-tracked" implementation of "key" ITS projects in the SGVTF

In this Task, the ATMS-related needs and requirements of the SGVTF are analyzed and a preliminary design developed. Subsequent Tasks will refine this design, and then develop, deploy, and integrate these systems in a coordinated manner.

## 2. STAKEHOLDERS

### 2.1 STAKEHOLDER IDENTIFICATION

Within the SGVTF, there are three (3) categories of project participants: Cities, Transit Agencies, and “Other” types of Stakeholders. The most prevalent are Cities. Stakeholders in this category operate/manage the traffic-related roadside and central systems/equipment (e.g., traffic signals, controllers, communications, etc.) for themselves and/or for other local Agencies. For the purpose of this project, Transit Agencies operate/manage transit systems that traverse the study area in multiple jurisdictions. While many of the Cities in the SGVTF operate some type of intra-City transit, para-transit, and/or Dial-A-Ride service, these entities were not included as additional Stakeholders due to their limited operational and geographical span. The final stakeholder category, “Other”, are for those entities that do not clearly fall into either of the previously discussed categories.

Each of the 24 local Agencies participating in the SGVTF, County, MTA, and Caltrans are project Stakeholders. During project meetings and Agency interviews, additional transit and quasi-governmental Agency Stakeholders were also identified and interviewed. Also, when possible, Stakeholder input from another Traffic Forum project was used and the Stakeholder was not re-interviewed. Due to their limited impact on this phase of the project (i.e., the Agency does not operate any traffic signals in the project area, etc.), some Stakeholders were not interviewed at this time and are denoted by an asterisk following their name (\*). The following sections show how the SGVTF Agencies were classified. Please refer to Appendix B to see the contact information for each of the Agencies.

### 2.2 PUBLIC TRAFFIC AGENCIES

These SGVTF Agencies manage the traffic operations and systems for their respective jurisdiction, and possibly for other Stakeholders:

City of Arcadia	City of Alhambra
City of Azusa	City of Baldwin Park
City of Bradbury*	City of Covina
City of Duarte	City of El Monte
City of Glendora	City of Irwindale
City of La Puente	City of Monrovia
City of Montebello	City of Monterey Park
City of Pasadena	City of Rosemead
City of San Dimas	City of San Gabriel
City of San Marino	City of Sierra Madre*
City of South El Monte	City of South Pasadena
City of Temple City	City of West Covina
LA County Dept. of Public Works	Caltrans District 7

### **2.3 TRANSIT AGENCIES**

The following stakeholders conduct or administer transit operation/services across the SGVTF project area:

- Los Angeles County MTA\*
- Foothill Transit
- Montebello Bus

### **2.4 OTHER STAKEHOLDERS**

The following stakeholders do not fall into either of the prior categories:

- Alameda Corridor East (ACE)

### 3. TASK METHODOLOGY

In order to compile the information required for Task 2, representatives from the TransCore Team developed a comprehensive ATMS survey form, sent it to each Stakeholder to complete, and then conducted follow-up interviews with the individual Agencies to discuss their responses. For each SGVTF Agency, the TransCore Team focused its efforts on obtaining/analyzing the information that follows for both “Existing Conditions” and “Planned Operations” scenarios:

- Project Background
  - Traffic Generators
  - Major Corridors & Intersections
  - Project Issues
- TMC and/or W/S layout
  - Typical use & capabilities
  - Location(s)
- ATMS and/or TCS
  - Current Agency equipment, features, & functionality
  - Options
    - Dedicated ATMS for City
    - ATMS shared between Local Agencies (“Agency B” on another Agency TCS)
    - City controllers under a Regional Agency ATMS (County)
- Surveillance & Detection
- Communications
- Traveler Information Systems
- SGVTF Participation/Coordination (System Integration)
  - ITS components
  - Impacts integration of Agency TCS into a Regional network could have on Agency monitoring, coordination, and management operations
- Operations & Maintenance (O&M)

With this information in-hand, the TransCore Team then performed the following activities:

- Described/analyzed the SGVTF project area, traffic generators, major arterial routes/corridors, and key intersections (Section 4)
- Identified/analyzed crosscutting issues/findings (Section 5)
- Developed individual Agency Interview Summaries (Section 6)
- Categorized system needs and operational objectives for each SGVTF Agency in **HIGH**, **MEDIUM**, and **LOW** indications to establish initial Agency priorities (Section 6)
- Input the SGVTF existing system inventory into Turbo Architecture software (Section 7 and Appendix E)
- Identified potential Early Deployment Opportunities for the SGVTF (Section 8)

Pulled together in this deliverable, the information obtained and resultant analyses describe each Agency's infrastructure in the SGVTF, how Agencies plan to operate/maintain their traffic signals in the future, and presents recommendations for improvements to each City's ATMS direction. Please refer to the following Appendices for further details re: this data collection and analysis effort:

- Section 6 for the Agency Interview Summaries (System Needs & Operational Objectives)
- Appendix C for the SGVTF Agency Interview Schedule
- Appendix D for completed Agency Interview Survey Forms

## 4. SGVTF – STUDY AREA OVERVIEW

### 4.1 SGVTF OVERVIEW

The SGVTF project comprises an area of 24 Cities spread over roughly 200 sq. miles in the central northwestern portion of Los Angeles County. The general boundaries of the SGVTF project area are as follow:

- CA SR 110 & I-710 freeway to the west
- I-210 freeway to the north
- CA SR 57 freeway to the east
- CA SR 60 freeway to the south

The northern Cities within the project area extend to the prominent geological feature of the Los Angeles National Forest to the north. The project area is bordered by the City of Los Angeles along its western edge. The core of the area lies along the I-210 and I-10 freeways but also extends south of the I-10 to the CA SR 60 west of the I-605.

There is also a prominent geological feature that greatly impacts east-west travel in the SGV: the San Gabriel River. The river, which basically bisects the valley, has three (3) east-west freeways and six (6) major arterials (in the project area) to cross it. And although the river is a barrier that must be considered in any Regional transportation study, it is beyond the scope of an ATMS project such as this.

### 4.2 MAJOR FREEWAYS & HIGHWAYS

There are seven (7) major freeways that affect the SGVTF project area. There are four (4) north/south freeways and three (3) east/west freeways. Please refer to Exhibit 4.1 for a graphical depiction of these freeways and the descriptions below for more details:

- North/South Freeways
  - CA SR 110
    - Running southwest out of Pasadena
    - Provides direct access to the City of Los Angeles and additional freeways converging in the downtown area
  - I-710
    - Beginning in the southwest portion of the project area in Alhambra just north of the I-10 and continuing southward across LA County
    - Connects the CA SR 60 and I-10 and is a major truck route
  - I-605
    - Beginning at the I-210 and continuing southward across LA County
    - Connects the three (3) east/west freeways in the middle of the project area.
  - CA SR 57
    - Beginning at the I-210 and continuing southward into Orange County
    - Connects the three east/west freeways in the Eastern part of the project area
- East/West Freeways

- CA SR 60
  - Extending from downtown Los Angeles eastward out of LA County
  - Provides access along the southern boundary of the project area and direct access to the City of Los Angeles and additional freeways converging in the downtown area
- I-10
  - Extending from the Pacific Ocean eastward out of LA County
  - Runs through the core of project area and into downtown Los Angeles connecting the CA SR 57, I-605, and I-710 freeways
- I-210
  - Connects all of the project area's northern Cities and provides direct access to Pasadena before continuing northeasterly to I-5

#### Exhibit 4.1 – Major Freeways in the SGVTF



### 4.3 MAJOR ARTERIAL ROUTES/CORRIDORS

The major arterial routes/corridors in the SGVTF are broken-down into north/south routes and east/west routes as listed below and shown in Exhibit 4.2. Various characteristics of the arterial intersections of interest in the SGVTF are provided in Exhibit's 4.3 thru 4.6. These routes are further discussed in Section 4.5. – Commuting Trends.

Please note that in the tables and exhibits that follow, asterisked entries (\*) are items that have been requested to be added to the report by various SGVTF Agencies during the document review period.



North/South Arterial Routes/Corridors:	
Grand Ave	Citrus Ave
Azusa Ave	Irwindale Ave/Sunset Ave
Baldwin Ave	Rosemead Blvd
San Gabriel Blvd	Fair Oaks Ave/Fremont Ave
Atlantic Blvd	Garfield Ave
Myrtle Ave/Peck Rd	Tyler Ave*
Hacienda Blvd*	San Dimas Ave*
Santa Anita Ave*	Walnut Grove Ave*
Lone Hill Ave*	Montebello Blvd*
Nogales St*	Lemon Ave*

East/West Arterial Routes/Corridors:	
Arrow Hwy/Live Oak Av/ Las Tunas Dr/Main St. (Alhambra)	Huntington Dr/ Foothill Blvd/ Rte. 66/Alostta Ave
Valley Blvd	Mission Rd
Del Mar Blvd	Badillo St/Ramona Blvd/Covina Blvd
California	Cypress St*
Bldv Beverly Blvd*	Colima Rd*
Duarte Rd*	Puente Ave/Workman Mill Rd*
Amar Rd*	Whittier Blvd*
California Ave*	Cameron Ave*
Sierra Madre Blvd (also N/S)*	

**Exhibit 4.2 – Major Arterials in the SGVTF**



### Exhibit 4.3 – Congested/Problematic Intersections in the SGVTF

Fair Oaks @ Huntington	Azusa @ Arrow	Main @ Garfield
San Gabriel @ Valley	Main @ Atlantic	Mission @ Garfield
Myrtle @ Huntington	Mission @ Atlantic	Valley @ Garfield
San Gabriel @ Las Tunas	Valley @ Atlantic	Mission @ Valley
Citrus @ Alost	Citrus @ Arrow	Fremont @ Valley*
Santa Anita @ Huntington *		

### Exhibit 4.4 – Congested/Problematic Freeway/Arterial Intersections in the SGVTF

Huntington @ I-210	San Gabriel @ I-10	Valley @ I-710
Fair Oaks @ CA SR 110	Azusa @ I-10	

### Exhibit 4.5 – Other Intersections of Significance in the SGVTF

Mission @ Las Tunas	San Gabriel @ Huntington	California @ Fair Oaks
Ramona @ Irwindale	California @ Huntington	Baldwin @ Valley
Ramona @ Grand	Baldwin @ Las Tunas	Myrtle @ Ramona
Ramona @ Azusa	Ramona @ Pacific	Citrus @ Alost
Ramona @ Citrus	Irwindale @ Foothill	Citrus @ Badillo
Irwindale @ Arrow Hwy	Irwindale @ Pacific	Grand @ Arrow
Azusa @ Foothill	Azusa @ Badillo	Grand @ Route 66
Citrus @ Foothill	Irwindale/Sunset @ Badillo	Main (Alhambra) @ Huntington
Grand @ Route 66	Grand @ Badillo	Huntington @ Mountain*
Baldwin @ Huntington*	Garfield @ Via Campo*	Irwindale @ Foothill*
Santa Anita @ Huntington*	Fremont @ Valley*	Fremont @ Mission*
Badillo @ Grand*	Mission @ Rosemead*	Mission @ Marshall*
Walnut Grove @ San Gabriel*	San Marino @ Huntington*	

### Exhibit 4.6 – Other Freeway/Arterial Intersections in the SGVTF

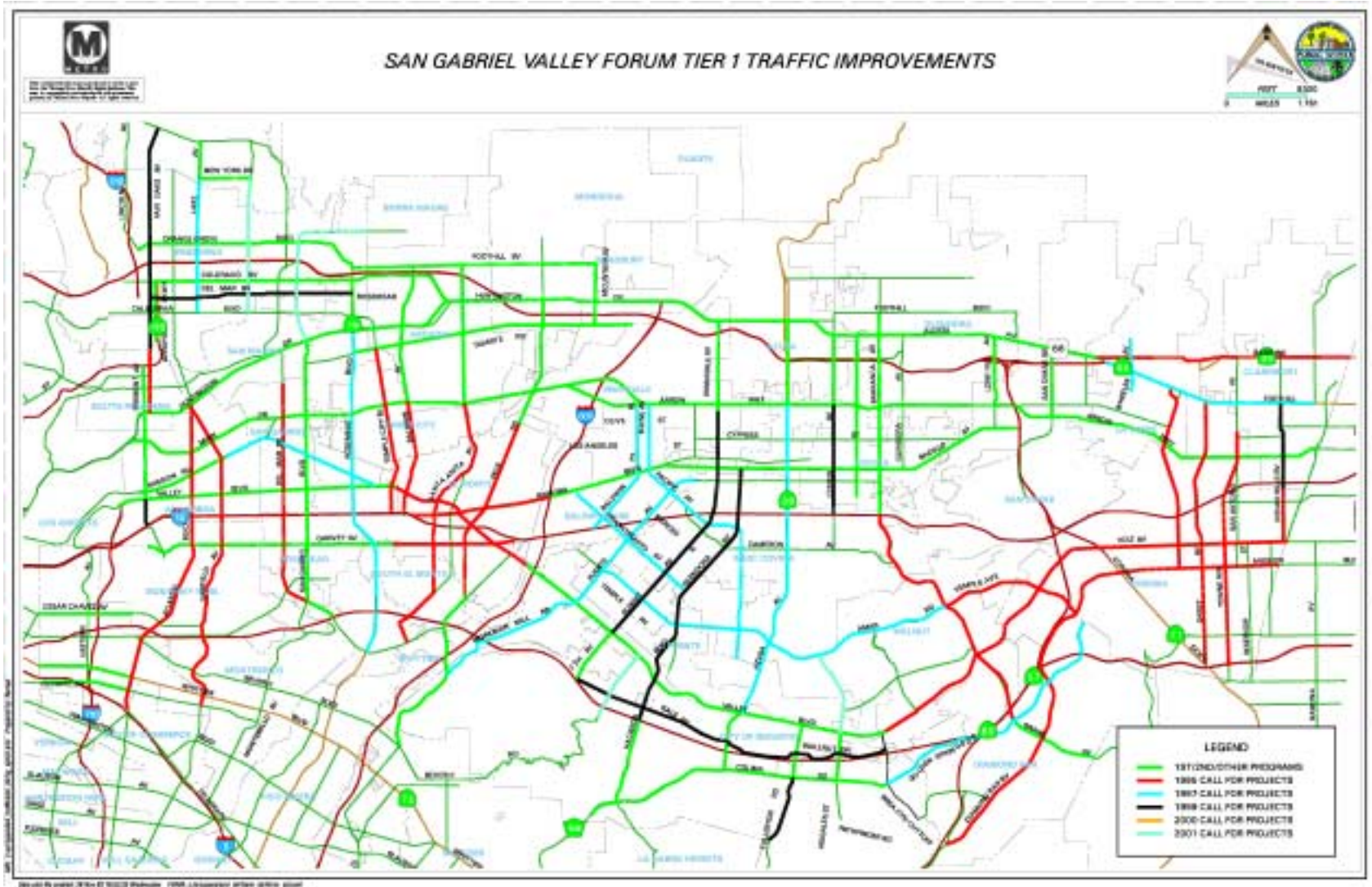
California @ CA SR 110	Irwindale @ I-210	Ramona @ I-605
Azusa @ I-210	Grand @ I-210	Las Tunas @ I-605
Foothill @ I-210	Atlantic @ I-10	Huntington/Mt. Olive @ I-605
Arrow @ I-210	Grand @ I-10	Valley @ I-605
Myrtle @ I-210	Garfield @ I-10	Garfield @ SR-60
Badillo @ I-210	Baldwin @ I-10	Atlantic @ SR-60
Citrus @ I-210	Rosemead @ I-10	Rosemead @ SR-60
Rosemead @ I-210	Citrus @ I-10	San Gabriel @ SR-60
Baldwin @ I-210	Pacific @ I-10	Azusa @ SR-60*
Santa Anita @ I-210*	Santa Anita @ I-10*	Paramount @ SR-60*
Mountain/Myrtle @ I-210*	Live Oak @ I-605*	Arrow Hwy @ I-605

#### 4.4 LACO TRAFFIC TIER 1 TRAFFIC IMPROVEMENTS

Since prior to 1995, the County has been undertaking projects to synchronize arterial traffic signals through its Tier 1 synchronization program. Synchronization techniques primarily consist of time-based coordination (TBC) activities and the use of WWV clock broadcasts. There are 41 corridors/arterials, partially or completely located in the San Gabriel Valley, that have been synchronized as shown in the following table and in Exhibit 4.7. A few Agencies have commented that some of the signals on these routes are no longer operating as planned and that the synchronization requires revisiting/updating.

Amar Rd/Temple Ave	Arroyo Pkwy	Atlantic Blvd
Azusa Ave	Baldwin Ave	Barranca Ave
Citrus Ave	Colima Rd	Colorado Blvd/Colorado St.
Del Mar Ave/Hill Dr	Duarte Rd	Fair Oaks Ave
Foothill Blvd/Huntington Dr/Alosta Ave/Route 66	Fremont Ave	Garvey Ave
Garfield Ave	Lake Ave	Live Oak Ave/Arrow Hwy/Main Dr/Las Tunas Dr
Lone Hill Ave	Mountain Ave	Myrtle Av/Peck Rd
Mission Rd	New York Dr	Nogales St
Orange Grove Blvd/Rosemead Blvd	Peck Rd	Ramona Blvd/Badillo St/Covina Blvd
Rosemead Blvd	San Dimas Ave	San Gabriel Blvd
Santa Anita Ave	Temple Ave	Temple City Blvd
Valley Blvd		

### Exhibit 4.7 – SGVTF Tier 1 Traffic Improvements



## 4.5 COMMUTING TRENDS

There are two major commuting trends in the SGVTF project area. First and foremost is the AM westbound (WB) peak movement and reciprocal PM eastbound (EB) peak movement. This is primarily made up of residents in the eastern portion of the project area and residential communities in east Los Angeles County, San Bernardino County, and Riverside County commuting to business centers/jobs in the LA metropolitan area. The CA SR 60, I-10, and I-210 are all heavily congested for several hours during both AM and PM peak periods.

The majority of the SGVTF Cities in the project area do not have significant employment centers and are typical small to medium residential/retail-based communities (exceptions including Pasadena and Alhambra). This environment adds to the large number of commuters coming from the “bedroom” communities in east Los Angeles County and beyond. The cost of housing generally decreases in relationship to the distance from downtown LA and is the primary generator for this commuting trend as population growth has continued eastward. While the majority of commuters use one of the aforementioned major freeways, a significant number exit these freeways in the AM and use major arterials instead. This phenomenon is exacerbated when incidents occur on any of the freeways. During such times, large numbers of commuters exit the freeways and use the surface streets for their commute. This places a significant traffic burden upon the generally small Cities through which these major east/west arterials pass through.

The second major commuting trend is from residents within the SGVTF project area commuting west and southwest towards the employment base of the City of Los Angeles. The I-210 does not have a direct connection to this employment base. Commuters traveling west on the I-210 must choose between the CA SR 134 on the west side of Pasadena, the CA SR 110 on the south side of Pasadena, or arterial routes through adjacent Cities and into downtown LA. The CA SR 110 does not connect directly to the I-210. Commuters wishing to use this route must connect using arterials through the core of Pasadena and South Pasadena. Furthermore, the CA SR 110 is essentially a winding, 6-lane (primarily), auto-only parkway with no carpool lanes. This commuting trend produces through traffic most affecting the Cities of Pasadena, South Pasadena, Alhambra, and some portions of unincorporated LA County.

## 4.6 MAJOR TRAFFIC GENERATORS

Exhibit 4.8 identifies the major traffic generators, activity centers, and special events in the SGVTF. (As before, asterisked items were added by Agencies during the document review process.)

### **Exhibit 4.8 – Major Traffic Generators in the SGVTF**

Rose Bowl	Montebello Town Center
El Monte Airport	Westland Town Center (West Covina)
Azusa Pacific University	Citrus College
Mt. Sierra College	Santa Anita Racetrack
Eastland Shopping Center/IKEA (West Covina/Covina)	City of Hope*
Old Town Pasadena	Civic Center (Pasadena)
Jet Propulsion Lab (Pasadena)	Caltech (Pasadena)
Pasadena City College	Various WalMart/Costco Shopping Centers
Various K-12 Schools	San Gabriel Valley Medical Center
L.A. County Dept. of Public Works	Westfield Shoppingtown Santa Anita*
Southern California Edison	Arcadia Methodist Hospital*

#### 4.7 PUBLIC TRANSIT SERVICE

The SGVTF area has three (3) major transit providers and several additional City-level and local services. These three (3) are the MTA, Montebello Transit, and Foothill Transit. A brief summary of these are given below:

Agency	General Information	ITS Systems
<b>Montebello Transit</b>	<ul style="list-style-type: none"> <li>• 11,000,000 riders annually</li> <li>• Major Routes/Corridors: Whittier and Beverly Blvds (N/S), Garfield Ave and Montebello Blvd (E/W)</li> <li>• Major Destinations: Downtown LA, Gold Line Station (Pasadena), Whittier, ELAC</li> <li>• Boundary Areas: San Marino/Pasadena, Whittier, Montebello, Alhambra, Downtown LA</li> <li>• 54 busses/day (at peak hours)</li> <li>• 235 employees</li> <li>• Schedules/routes are re-evaluated 3 times/year</li> </ul>	<ul style="list-style-type: none"> <li>• Existing               <ul style="list-style-type: none"> <li>• Schedules and links on website</li> <li>• Route data sent to MTA</li> </ul> </li> <li>• Proposed               <ul style="list-style-type: none"> <li>• Considering AVL potential</li> <li>• Considering bus signal priority</li> <li>• Future kiosk/transit pass vending at new transit plaza possible</li> <li>• Would like to have access to arterial ATMS data</li> </ul> </li> </ul>
<b>Foothill Transit</b>	<ul style="list-style-type: none"> <li>• 17 million riders annually</li> <li>• Service area for 21 Cities in the San Gabriel and Pomona Valleys; North of the 210; South of the 60; LA County line to the East and Downtown LA to the West</li> <li>• Major routes are mostly east/west, including the El Monte busway (on the I-10), Foothill/Huntington, Arrow Highway, Amar Road and Colima/Golden Springs; Major north/south route: Azusa Ave (from Puente Hills to Azusa)</li> <li>• Major Destinations include Downtown LA (about 40% of ridership), El Monte Transit Station (primary hub), CSULA</li> <li>• 306 fixed-route bus fleet (255 in service at peak hours)</li> <li>• 900 employees (including contract)</li> </ul>	<ul style="list-style-type: none"> <li>• Existing               <ul style="list-style-type: none"> <li>• Schedules/links on website</li> <li>• Route data sent to the MTA</li> <li>• Farebox software (GFI)</li> </ul> </li> <li>• Proposed               <ul style="list-style-type: none"> <li>• Considering AVL potential and real running time tracking</li> <li>• Considering bus signal priority</li> <li>• Analyzing integrating farebox system with AVL system</li> <li>• Possible Countywide farebox system (inter-Agency transfer issues)</li> </ul> </li> </ul>
<b>MTA</b>	<ul style="list-style-type: none"> <li>• 366 million riders/annually</li> <li>• 183 fixed routes</li> <li>• 65 Metro Rail stations with 237,000 weekday boardings</li> <li>• Gold Line – 13 Stations &amp; 14,500 weekday boardings</li> <li>• Transit service to 88 cities</li> </ul>	<ul style="list-style-type: none"> <li>• Existing Bus Signal Priority/Transit Priority System (BSP/TPS) on major LA County arterials               <ul style="list-style-type: none"> <li>• Whittier Blvd</li> <li>• Wilshire Blvd</li> <li>• Crenshaw Blvd</li> <li>• 3<sup>rd</sup> Street</li> </ul> </li> </ul>

The following Cities operate a bus service within their jurisdiction (routes/riders):

Pasadena (6 routes/1.2 million riders annually)	Duarte (2 routes)
Azusa	Monrovia (1 route)
West Covina (3 routes)	Baldwin Park
Alhambra (2 routes)	

The following Cities operate Dial-A-Rides or Para-Transit:

South Pasadena	Monrovia
Arcadia	Duarte
Pasadena	San Gabriel
Temple City	Alhambra
La Puente	Baldwin Park
Montebello	El Monte
Monterey Park	Glendora
Rosemead	Monrovia

#### 4.8 PASSENGER/COMMUTER RAIL SERVICE

There are two (2) operating passenger rail services in the SGVTF. Metrolink operates a route beginning in downtown LA that follows the I-10 with stops in the project area at California State LA, El Monte, Baldwin Park, and Covina; continuing to San Bernardino with stops between. Another route also originating in downtown LA follows the CA SR 60 with a stop in Montebello with continuing service to Riverside and points between. In addition, MTA operates the Gold Line, an elevated/at-grade light rail transit (LRT) service from downtown LA through South Pasadena, terminating in Pasadena. Current plans call for the Gold Line to be extended eastward along the I-210 in future years.

#### 4.9 IMPACTS OF FREIGHT RAIL

Two east-west running railroads traverse the project area (using the same physical railroad lines/tracks as Metrolink). These freight lines connect the Ports of Los Angeles and Long Beach to the rest of the Nation. There are as many as 66 train crossings per day (both freight and commuter) over these lines and their effect on automobile traffic can be profound. One Agency stated that a freight train loading or unloading could block one (or more) road/rail intersections for more than an hour.

To help mitigate the effects of this rail traffic, the San Gabriel Valley Association of Governments formed the Alameda Corridor East Construction Authority (ACE). ACE's mission is to oversee the design and implementation of traffic- and safety- related rail projects in the impacted area, including new grade separations, road widening, new/improved signage and signals, gates, etc.



One other major ACE project is the Intelligent Road/Rail Interface System (IRRIS). IRRIS is an ITS project that predicts train arrival times at crossings, adjusts affected traffic signals, and directs automobile traffic to the nearest grade separation via CMS signs. Currently, IRRIS is only a pilot/demonstration project located outside of the SGVTF project area (in the City of Pomona), but if successful, it could expand to improve mobility for SGV motorists as well.

## 5. SGVTF – CROSSCUTTING ISSUES/FINDINGS

### 5.1 OVERVIEW

The analysis of the TransCore Team’s Stakeholder interviews are documented in the following manner:

- Section 5 presents the SGVTF’s major crosscutting issues and findings (Regional-view)
- Section 6 summarizes the ATMS information collected from each SGVTF Agency (Local-view)
- Appendix D contains the completed Agency survey forms
- Appendix E presents the SGVTF system inventory (per Turbo Architecture)

Within Section 5, an overview of the SGVTF’s existing conditions is first presented in Exhibit 5.1. Following this table, based on the results of the Stakeholder interviews, is a discussion of the SGVTF’s crosscutting issues/findings covering the following topics:

- Project Background (discussed in Section 4)
- ATMS and/or TCS
- TMC and/or W/S layout
- Surveillance & Detection
- Communications
- Advanced Traveler Information Systems (ATIS)
- SGVTF Participation/Coordination (City-specific and/or SGVTF-Regional integration)
- Operations & Maintenance (O&M)

Within each of these categories (above), the SGVTF crosscutting issues/findings revolve around the following discussion topics:

- Types of functionality/services provided
- Common aspects
- Most obvious exceptions
- Systems and/or operations Agency would like to support that they currently do not (or not well)
- Agency “coordination” activities/strategies (e.g., information sharing, shared control, coordinated incident management, etc.)

### 5.2 EXISTING CONDITIONS

Exhibit 5.1 depicts the existing conditions for the SGVTF Stakeholder Agencies in the following main areas:

• Signalized Intersections	• TMC
• Traffic Controllers	• System Detection & Surveillance
• O&M	• Communications
• TCS (Central) & Roadside Signal System	• ATIS

## Exhibit 5.1 – Existing Conditions

Stakeholder		Roadside				ATMS/TCS		Detection & Surveillance		Comm. System(s)	ATIS
Agency	# Of Primary Arterials	# Of Signalized Ints.	Controllers/ Firmware	Signal Mntrnce.	TCS/Ints. Controlled	TCS/TMC Location	Ints. w/ Loops/MIDs	CCTV	Comm. System(s)	Advanced Traveler Information System	
Alhambra	6	99	73 NEMA/Econolite 26 Type 170	City	Econolite Aries/18	City Hall	86/11	None	TWP/copper & WWV	None	
Arcadia	5	71	45 Multisonics 820 26 Type 170	Peek	Multisonics VMS 330/0	City Hall Eng. Div.	71/0	None	TWP/copper, WWV, & Phone	None	
Azusa	5	52	Type 170 2 (est.) Type 90	Peek and City	None/0	N/A	50/2	None	WWV	Construction info on City Website & Cable TV	
Baldwin Park	8	56	170E	Signal Maintenance/ Peek	None/0	N/A	56/0	None	TWP/copper & WWV	None	
Caltrans		195	12 Type 170 C8v4 86 Type 170E C8 99 other	Caltrans	CTNet/10	Downtown LA	194/1	All Fwy	TWP/copper & fiber optic	Fwy – VMS, HAR, ISP	
Covina	8	49	46 Type 170 2 Type 90 1 Flasher	Computer Services Company	None/0	N/A	49/0	None	TWP/copper & WWV	None	
Duarte	4	11	Type 170	Peek	None/0	N/A	11/0	None	WWV, GPS- UTBS; & abandoned copper interconnect	None	
El Monte	4	67	Type 170E	Peek & City	None/0	N/A	67/0	None (2 Red Light Cams.)	TWP/copper & WWV	None	

Stakeholder		Roadside			ATMS/TCS		Detection & Surveillance		Comm. System(s)	ATIS
Agency	# Of Primary Arterials	# Of Signalized Ints.	Controllers/Firmware	Signal Mntnce.	TCS/Ints. Controlled	TCS/TMC Location	Ints. w/ Loops/VIDs	CCTV	Comm. System(s)	Advanced Traveler Information System
Glendora	3	40	31 Traconex 390 9 Econolite	Peek	Econolite Aries/4	City Hall	37/2	2 (via VIDs)	WWV & Phone	None
Irwindale	4	32	Type 170E	LACO DPW	None/0	N/A	32/0	None	WWV	None
La Puente	3	11	Type 170	LACO DPW	None/0	N/A	11/0	None	WWV	None
LACO DPW		200	Mostly Type 170/LACO-1R	LACO DPW	None/0	N/A	198 2 VIDs	None	TWP/copper, WWV, & Phone	None
Monrovia	3	37	Type 170	LA Signal	None/0	N/A	37/0	None	WWV	None
Montebello	6	78	Type 170	Peek	None/0	N/A	78/0	None	TWP/copper & WWV	None
Monterey Park	4	65	Econolite 8200	Computer Service Company	None/0	N/A	63/2	None	TWP/copper & WWV	None
Pasadena	10	308	Type 170	City	Series 2000/290 QuicNetIV/18	City Hall & Maint. Yard	287/17 4 micro wave	10 5-monitors	TWP/copper & FO (for CCTV)	CMS (9)
Rosemead	4	51	Type 170 running LACO-1 and Bi Trans and some Multisonics Type 90	Peek	None/0	N/A	51/0	None	TWP/copper & WWV	None

Stakeholder		Roadside			ATMS/TCS		Detection & Surveillance		Comm. System(s)	ATIS
Agency	# Of Primary Arterials	# Of Signalized Ints.	Controllers/ Firmware	Signal Mntnce.	TCS/Ints. Controlled	TCS/TMC Location	Ints. w/ Loops/VIDs	CCTV	Comm. System(s)	Advanced Traveler Information System
San Dimas	5	33	Type 170 (50% 170E)	Computer Service Company	None/0	N/A	33/2	None	TWP/copper & WWV	None
San Gabriel	5	34	Type 170	City	None/0	N/A	34/0	None	WWV	None
San Marino	3	18	Type 170	Peek	None/0	N/A	18/0	None	WWV	None
South El Monte	4	22	Type 170	Signal Maint., Inc.	None/0	N/A	22/0	None	TWP/copper & WWV	None
South Pasadena	4	36	Type 170 NEMA 2000 (5)	Peek & City	None/0	N/A	36/0	None	WWV	None
Temple City	2	28	Type 170	Signal Maint. Inc./Peek	None/0	N/A	28/0	None	WWV	None
West Covina	6	112	83 Multisonics 820A	City	Multisonics VMS 330 /63 (24 not working)	City Hall	112/0	None	TWP/copper & WWV	None

## 5.3 ATMS AND/OR TCS

### 5.3.1 Existing Conditions

ATMS-E1 – 12% of SGVTF Agencies operate a centralized TCS

- Arcadia (Multisonics VMS 330 but not connected to any intersections)
- Pasadena
  - TransCore Series 2000 connected to 290 intersections
  - BI Trans QuicNet IV connected to 18 intersections for LRT Priority system
- West Covina (Multisonics VMS 330 connected to 63 intersections but 24 intersections currently not working)

ATMS-E2 – 8% of SGVT Agencies operate a closed-loop, roadside signal system

- Alhambra (Econolite Aries connected to 18 intersections)
- Glendora (Econolite Aries connected to 4 intersections)

ATMS-E3 – 80% of SGVTF Agencies operate a roadside signal system (using the following timing strategies)

- LACO DPW Tier 1 synchronization via TBC, WWV, etc.
- Fixed-patterns/Time-of-Day (TOD) (AM, Midday, PM, & FREE)

### 5.3.2 Planned Operations

#### Agency Level Definitions

##### Level 1

- Agency does NOT operate its traffic signals
  - Agency wants to be “Agency B” on another Agency’s ATMS
  - Another Agency operates its traffic signals (e.g., LA County DPW)
- Provided with an IEN W/S to monitor traffic signals & incident management activities
- No separate ATMS W/S provided

##### Level 2A

- Agency passively manages its traffic signals
  - Establish initial signal timings, monitor system status daily, etc.
  - May operate on an exception basis & occasionally peak periods
  - Monitor mainly for alarms & malfunctions
- Agency wants to be “Agency B” on another Agency’s ATMS
- Provided with an IEN W/S to monitor traffic signals & incident management activities (Regional view)
- Maintains a separate ATMS W/S connected to “host” Agency’s ATMS (Local view)

### Level 2B

- Agency actively manages & operates its own ATMS
  - Actively manage ATMS during exceptions
  - Passively manage ATMS during AM & PM peak periods
- Agency may operate some other ITS devices (small amount)
- Agency may operate other Agencies' traffic signals (Level 1)
- Agency may "host" other Agency's traffic signals (Level 2A)
- Maintains a LCCS to manage traffic signals & incident management activities
  - IEN W/S (Regional view)
  - ATMS W/S (Local view)
  - CDI between the ATMS & IEN

### Level 3

- Agency actively manages its own ATMS & other ITS devices (large amount)
  - Typically AM & PM peak operations and incidents
  - May support 24/7 operations
- Agency may operate other Agencies' traffic signals (Level 1)
- Agency may "host" other Agencies' traffic signals (Level 2A)
- Agency will have a TMC from which to operate its ATMS, the IEN, & other ITS devices
- Maintains a TMC/ LCCS to manage ATMS & incident management activities
  - IEN W/S (Regional view)
  - ATMS W/S (Local view)
  - CDI between the ATMS & IEN

ATMS-P1 – SGVTF Agency Level indications defining desired ATMS/TCS operating level per Agency (Exhibit 5.2)

**Exhibit 5.2 – SGVTF Agency Levels**

<b>Level 1 (4%)</b>	<b>Level 2A (38%)</b>	<b>Level 2B (46%)</b>	<b>Level 3 (12%)</b>
San Marino	Azusa	Alhambra	Caltrans
	Baldwin Park	Arcadia	LA County DPW
	Duarte	Covina	Pasadena
	El Monte	Irwindale	
	Glendora	Montebello	
	La Puente	Monterey Park	
	Monrovia	Rosemead	
	South El Monte	San Dimas	
	Temple City	San Gabriel	
		South Pasadena	
		West Covina	

## **5.4 TMC AND/OR W/S LAYOUT**

### **5.4.1 Existing Conditions**

TMC-E1 – 21% of SGVTF Agencies currently operate some type of central facility/TMC

- Alhambra (City Hall)
- Arcadia (City Hall)
- Glendora (City Hall)
- Pasadena (City Hall & Maintenance Yard)
- West Covina (City Hall)

### **5.4.2 Planned Operations**

TMC-P1 – Most every Agency wanted the potential TCS and/or IEN W/S to be located in the Traffic Engineer's office

TMC-P2 – Many Agencies expressed an interest in having W/Ss co-located with their Police and/or Maintenance departments

TMC-P3 – Several Agencies expressed interest that, in terms of convenience and utility, they would like to have a separate CPU (computer) linked to the same W/S monitor that the Traffic Engineer uses for other office work

## **5.5 SURVEILLANCE & DETECTION**

### **5.5.1 Existing Conditions**

DET-E1 – Every SGVTF Agency uses inductive loops as their primary traffic detection method

DET-E2 – 29% of SGVTF Agencies use VIDs as the traffic detection method at some of their signalized intersections

- Alhambra
- Azusa
- Glendora
- LA County DPW
- Monterey Park
- Pasadena
- San Dimas

DET-E3 – Only Pasadena (4% of the SGVTF) currently has a CCTV surveillance system



## 5.5.2 Planned Operations

DET-P1 – 67% of SGVTF Agencies expressed interest in using and/or expanding their use of VIDs as part of their overall (or primary) detection method in the future (especially at new signalized intersections)

- Arcadia
- Azusa
- Baldwin Park
- Duarte
- El Monte
- Glendora
- Irwindale
- LA County DPW
- Monrovia
- Montebello
- Monterey Park
- Pasadena
- San Dimas
- San Gabriel
- South Pasadena
- Temple City

DET-P2 – 63% of SGVTF Agencies expressed some interest in having CCTV surveillance capabilities at signalized intersections experiencing heavy traffic congestion

- Arcadia
- Azusa
- Covina
- Duarte
- Glendora
- Irwindale
- LA County DPW
- Monrovia
- Montebello
- Pasadena
- Rosemead
- San Dimas
- San Marino
- South El Monte
- Temple City

DET-P3 – In all likelihood, if an Agency does not operate a TCS, they will not receive any CCTV surveillance capabilities

## 5.6 COMMUNICATIONS

### 5.6.1 Existing Conditions

COMM-E1 – 50% of SGVTF Agencies have some existing TWP/copper wire in the field to communicate between traffic signals

- Alhambra
- Arcadia
- Baldwin Park
- El Monte
- LACO DPW
- Montebello
- Monterey Park
- Pasadena
- Rosemead
- San Dimas
- South El Monte
- West Covina

COMM-E2 – Every Agency has some traffic signals synchronized using WWV radio signals (LA County DPW Tier 1 Program)

COMM-E3 – Several SGVTF Agencies have existing (and/or planned) conduit along some street segments that could be used to install future communications media

### **5.6.2 Planned Operations**

COMM-P1 – No SGVTF Agency has plans to significantly upgrade their communications systems

COMM-P2 – Several SGVTF Agencies have expressed an interest in using wireless communications system as part of an ATMS/TCS

COMM-P3 – Every SGVTF Agency indicated that they would base their communications plans on recommendations from this project

## **5.7 ADVANCED TRAVELER INFORMATION SYSTEMS (ATIS)**

### **5.7.1 Existing Conditions**

TIS-E1 – 8% of SGVTF Agencies use some type of ATIS to disseminate traveler information

- Azusa (Construction information via City website)
- Pasadena (9 CMS signs)

### **5.7.2 Planned Operations**

TIS-P1 – One SGVTF Agency (4%) expressed interest in adding new ATIS functionality at this time

- Montebello (CMS signs)

## **5.8 SGVTF PARTICIPATION/COORDINATION (CITY-SPECIFIC AND/OR SGVTF-REGIONAL INTEGRATION)**

### **5.8.1 Existing Conditions**

SGVTF-E1 – Every SGVTF Agency has some traffic signals synchronized using WWV radio (LA County DPW Tier 1 Program)

SGVTF- E2 – Every SGVTF Agency has signals coordinated with neighboring Agencies along main corridors (along those routes where LA County DPW has implemented Tier 1 synchronization projects)

### **5.8.2 Planned Operations**

SGVTF-P1 – Every SGVTF Agency supports the system integration & coordination efforts being undertaken within this project

SGVTF-P2 – Every SGVTF Agency is willing to share all relevant TCS information with other Stakeholders

SGVTF-P3 –The majority of SGVTF Agencies are willing to cede control of TCS operations to another Agency (especially LA County DPW) during off-hours and/or for emergency operations/incident management

## 5.9 OPERATIONS & MAINTENANCE (O&M)

### 5.9.1 Existing Conditions

O&M-E1 – 25% of SGVTF Agencies perform all of their O&M activities “in-house”

- Alhambra
- Caltrans
- LACO DPW
- Pasadena
- San Gabriel
- West Covina

O&M-E3 – 67% of SGVTF Agencies have outsourced all or most of their O&M to signal maintenance contractors

- Arcadia
- Azusa
- Baldwin Park
- Covina
- Duarte
- El Monte
- Glendora
- Monterey Park
- Monrovia
- Montebello
- Rosemead
- San Dimas
- San Marino
- South El Monte
- South Pasadena
- Temple City

O&M-E5 – 8% of SGVTF Agencies have outsourced all of their O&M activities to LACODPW

- Irwindale
- La Puente

O&M-E7 – 17% of SGVTF Agencies have multiple organizations (in-house and/or one or more vendors) perform their O&M activities

- Azusa
- El Monte
- South Pasadena
- Temple City

## 5.9.2 Planned Operations

O&M-P1 – Exhibit 5.3 indicates the SGVTF Agencies and their willingness to pay for on-going O&M (once ITS capital improvements are installed). While most Agencies understand that there is a need to devote funding for on-going O&M activities once the systems are implemented, not all are able to commit funds at this time.

**Exhibit 5.3 – SGVTF Agency Funding for O&M**

Yes (42%)	Maybe (33%)	No (25%)
Alhambra	Covina	Baldwin Park
Arcadia	Duarte	El Monte
Azusa	Monrovia	Glendora
Irwindale	Rosemead	La Puente
Caltrans	San Dimas	Monterey Park
LA County DPW	San Gabriel	South El Monte
Montebello	South Pasadena	
Pasadena	Temple City	
San Marino		
West Covina		

Exhibit 5.4 presents SGVTF Agency willingness to pay for on-going O&M summarized by Agency Level.

**Exhibit 5.4 – SGVTF Agency Funding for O&M by Agency Level**

Agency Level (#)	Yes	Maybe	No
Level 1 (1)	100% (1)		
Level 2A (9)	22% (2)	22% (2)	56% (5)
Level 2B (11)	36% (4)	36% (4)	28% (3)
Level 3 (3)	67% (2)	33% (1)	

Exhibit 5.5 presents SGVTF Agency willingness to pay for on-going O&M by Agency and by Agency Level.

O&M-P2 – Every SGVTF Agency wants to maintain the same organization(s) to continue to perform its O&M activities

O&M-P3 – The majority of SGVTF Agencies are interested in having existing staff to monitor and operate ITS elements on a part-time basis

O&M-P4 – None of the SGVTF Agencies indicated that they would operate a TCS with full-time personnel

O&M-P5 – In all likelihood, if an Agency is not able to provide funding for on-going O&M, they will not receive any ITS system improvements as part of the SGVTF

**Exhibit 5.5 – SGVTF Agency Funding for O&M by Agency and by Agency Level**

<b>Agency</b>	<b>Level</b>	<b>Ongoing O&amp;M Funding</b>
San Marino	1	Yes
Azusa	2A	Yes
Baldwin Park	2A	No
Duarte	2A	Maybe
El Monte	2A	No
Glendora	2A	No
La Puente	2A	No
Monrovia	2A	Maybe
South El Monte	2A	No
Temple City	2A	Maybe
Alhambra	2B	Yes
Arcadia	2B	Yes
Covina	2B	Maybe
Irwindale	2B	Yes
Montebello	2B	Yes
Monterey Park	2B	No
Rosemead	2B	Maybe
San Dimas	2B	Maybe
San Gabriel	2B	Maybe
South Pasadena	2B	Maybe
West Covina	2B	Yes
Caltrans	3	Yes
LA County DPW	3	Yes
Pasadena	3	Yes

## 6. SGVTF – SYSTEM NEEDS & OPERATIONAL OBJECTIVES

Section 6 summarizes the ATMS information collected from each SGVTF Agency and presents this data from an individual Agency perspective (Local-view). Appendix C contains the Agency interview schedule and Appendix D contains the more detailed, completed Agency survey forms.

Section 6 contains the 2-3 page Agency Interview Summaries for each SGVTF Stakeholder. These are presented in alphabetical order for Public Traffic Agencies, Transit Agencies, and Other SGVTF Stakeholders. Each summary contains the following ATMS information for both “Existing Conditions” and “Planned Operations” scenarios:

- Project Background
- ATMS and/or TCS
- TMC and/or W/S layout
- Surveillance & Detection
- Communications
- Advanced Traveler Information Systems (ATIS)
- Staffing & Operations
- SGVTF Participation/Coordination (City-specific and/or SGVTF-Regional integration)
- Operations & Maintenance (O&M)

Further, the system needs and operational objectives for each SGVTF Agency are identified within the summaries by **HIGH**, **MEDIUM**, and **LOW** indications to establish initial Agency priorities.

## 6.1 ALAMEDA CORRIDOR EAST (ACE)

Interview Conducted: July 14<sup>th</sup>, 2004

Primary Agency Contact: Paul Hubler (ACE), Lou Cluster (ACE)  
(323) 887-4637

Interview Attendees: Jack Schneider (TransCore)

Interview Summary:

Item	Conditions/Operations
General Information	<ul style="list-style-type: none"> <li>• General goal is to mitigate effects of increased train traffic from the completion of the Alameda Corridor</li> <li>• Covers 35-mile freight rail corridor (2 nearly parallel railroads) through the San Gabriel Valley (from East Los Angeles through Pomona)</li> <li>• Generally about 50-60 trains per day (combined traffic)</li> <li>• Projects mainly address traffic and safety issues at rail crossings throughout the corridor</li> <li>• Two phases of projects; Phase 1 in progress</li> </ul>
Safety Improvement Projects	<ul style="list-style-type: none"> <li>• Includes median improvements, roadway widening, re-striping, new and improvements to pedestrian sidewalks, signage and signals, etc.</li> </ul>
Traffic Improvement Projects	<ul style="list-style-type: none"> <li>• ITS pilot project (IR/RIS) (Pomona)</li> <li>• 10 grade separation projects in Phase I; 7 in the project Area:               <ul style="list-style-type: none"> <li>• Nogales St (Industry/West Covina)</li> <li>• Ramona Blvd (El Monte)</li> <li>• Brea Canyon Rd (Industry)</li> <li>• Sunset Ave (Industry)</li> <li>• Baldwin Ave (El Monte)</li> <li>• San Gabriel Trench (design only) (San Gabriel)</li> <li>• Nogales St (design only) (LACO)</li> </ul> </li> </ul>
ITS/Systems	<ul style="list-style-type: none"> <li>• Intelligent Road/Rail Interface System               <ul style="list-style-type: none"> <li>• Pilot/demonstration project in Pomona</li> <li>• Detects trains 5 miles from crossings</li> <li>• Predicts arrival at crossing and adjusts affected traffic signals</li> <li>• Posts messages on CMS to redirect traffic to nearest grade separation(s)</li> </ul> </li> <li>• No current plans/funding to expand beyond demonstration project</li> </ul>
SGVTF Agency Level	N/A

## 6.2 CITY OF ALHAMBRA

Interview Conducted: November 4<sup>th</sup>, 2003

Primary Agency Contact: Ed Wright (Traffic Engineering Supervisor,  
City of Alhambra)  
(626) 570-5067

Interview Attendees: Jack Schneider (TransCore)  
Inez Yeung (LACO DPW)  
George Hatstrup (MMA)

### Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>LACO DPW</li> <li>COSTCO</li> <li>Business Complex at 1000 South Fremont</li> </ul>	Same as Existing
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Valley Blvd</li> <li>Fremont Ave</li> <li>Atlantic Blvd</li> <li>Garfield Ave</li> <li>Main St</li> <li>Mission Rd</li> <li>Main intersections are where above streets intersect</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	N/A
Traffic Control System (TCS)	<ul style="list-style-type: none"> <li>Econolite Aries Version 1.51</li> <li>Implemented April 1996</li> <li>Polling Rate: 1/sec</li> <li>18 Intersections connected to central system (Along Main St from Atlantic Blvd to City of San Gabriel)</li> </ul>	<ul style="list-style-type: none"> <li>19 more intersections to be connected by Fall 2004 (Along Fremont Ave from Alhambra Rd to Montezuma Ave; Along Mission Rd from Fremont Ave to Chapel Ave) <b>(HIGH)</b></li> <li>Would like to communicate with 170 controllers. <b>(HIGH)</b></li> </ul>
# of Signalized Intersections	99	99 <b>(HIGH)</b>
Signal Control	<ul style="list-style-type: none"> <li>Fixed Pattern/Time-of-Day</li> <li>Special Events</li> </ul>	TCS/Same as Existing <b>(HIGH)</b>
Primary Signal Controller	<ul style="list-style-type: none"> <li>NEMA/Econolite (73)</li> <li>Type 170's (26)</li> </ul>	Same as Existing <b>(HIGH)</b>



Item	Existing Conditions	Planned Operations
Roadside Equipment Maintenance	City Staff	Same as Existing <b>(HIGH)</b>
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc:</li> <li>• RCTB on Atlantic, Garfield, Huntington, Main, Valley, and Garvey</li> <li>• Closed Loop Interconnect on Main, Fremont, and Mission</li> </ul>	N/A <b>(HIGH)</b>
Intersection Control by Other Agencies	None	None <b>(HIGH)</b>
Primary Detection Method	<ul style="list-style-type: none"> <li>• Inductive Loops (86 intersections)</li> <li>• VIDs (11 intersections)</li> </ul>	No plans to change. <b>(HIGH)</b>
CCTV Capabilities	None	None <b>(HIGH)</b>
Primary Communications	<ul style="list-style-type: none"> <li>• Copper wire on all corridors.</li> <li>• Multicell conduit on Valley and Fremont (will allow LACO TMC to connect with LADOT).</li> </ul>	Install interconnect cable along Valley Boulevard <b>(HIGH)</b>
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	Coordination by LA County coordination projects.	<ul style="list-style-type: none"> <li>• Would participate to provide for better signal coordination. <b>(HIGH)</b></li> <li>• Would share timing plans and detector info with stakeholders. <b>(HIGH)</b></li> <li>• Would cede control of TCS operations to LACO for: <b>(MEDIUM)</b> <ul style="list-style-type: none"> <li>• Emergency Operations</li> <li>• Incident Management</li> <li>• Implementing coordinated timing plans</li> <li>• Planned Events</li> </ul> </li> </ul>
Maintenance Budget	\$75k for personnel, \$40k for new traffic equipment, and \$20k for spare parts.	City recognizes that they will most likely need to increase their O&M budget for TCS operations <b>(MEDIUM)</b>
On-Going O&M for SGVTF Operations	N/A	Willing to devote some funding to operate & maintain a TCS <b>(HIGH)</b>
SGVTF Agency Level	N/A	Level 2B
Possible Early Deployment Opportunities	N/A	N/A

### 6.3 CITY OF ARCADIA

Interview Conducted: November 4<sup>th</sup>, 2003

Primary Agency Contact: Phil Wray (City Engineer, City of Arcadia)  
(626) 574-5488

Interview Attendees: Phil Wray (City of Arcadia)  
Romero Gonzalez (City of Arcadia)  
Inez Yeung (LACO DPW)  
Chuck Dankocsik (TransCore)  
David Miller (TransCore)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>• Santa Anita Racetrack</li> <li>• Santa Anita Mall</li> <li>• Arboretum</li> </ul>	Same as Existing
Main Arterials & Intersections	<p><u>Arterials</u></p> <ul style="list-style-type: none"> <li>• Santa Anita Ave</li> <li>• Baldwin Ave</li> <li>• Huntington Dr</li> <li>• Foothill Blvd</li> <li>• Las Tunas Dr/Live Oak Ave</li> <li>• Colorado Blvd (especially during I-210 incidents)</li> </ul> <p><u>Intersections (LOS D or E)</u></p> <ul style="list-style-type: none"> <li>• Sunset/Huntington</li> <li>• Baldwin/Duarte</li> <li>• Santa Anita/I-210 EB ramps</li> <li>• Santa Anita/Huntington</li> <li>• Santa Anita/Duarte</li> </ul>	Same as Existing
Transportation Management Center (TMC)	<ul style="list-style-type: none"> <li>• Located in City Hall Engineering Division</li> <li>• Existing TMC houses one (1) outdated but operational W/S (Multisonics TCS)</li> </ul>	<ul style="list-style-type: none"> <li>• Would like a small W/S area <b>(HIGH)</b></li> <li>• W/S would be located in City Hall Engineering Division <b>(HIGH)</b></li> <li>• Future W/S possibly located @ Police Department <b>(LOW)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Traffic Control System (TCS)	<ul style="list-style-type: none"> <li>• Multisonics TCS               <ul style="list-style-type: none"> <li>• Installed 1976</li> <li>• Intersections removed circa 1991</li> <li>• City remarked that the system was “buggy” and expensive to maintain (e.g., frequent upgrades to TCS, system S/W, &amp; firmware had difficulty implementing their TOD patterns, etc.)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Would like their own centralized TCS <b>(HIGH)</b></li> <li>• Primary Operations:               <ul style="list-style-type: none"> <li>• Signal monitoring &amp; control <b>(HIGH)</b></li> <li>• Incident management <b>(MEDIUM)</b></li> <li>• Event management <b>(MEDIUM)</b></li> <li>• Transit coordination <b>(MEDIUM)</b></li> <li>• Control other ITS devices <b>(HIGH)</b></li> <li>• LRT Priority (possible with Gold Line in 5-10 years) <b>(LOW)</b></li> </ul> </li> </ul>
# of Signalized Intersections	71	Same as Existing
Signal Control	<ul style="list-style-type: none"> <li>• Roadside control per local intersection controller</li> <li>• Time-of-Day (TOD)/Fixed Patterns</li> </ul>	<ul style="list-style-type: none"> <li>• TBD per TCS capabilities               <ul style="list-style-type: none"> <li>• Various TOD plans (AM, Midday, PM, FREE) <b>(HIGH)</b></li> <li>• Pre-planned scenarios &amp; special/planned events <b>(HIGH)</b></li> </ul> </li> </ul>
Primary Signal Controller	<ul style="list-style-type: none"> <li>• Multisonics 820 (45 ints)</li> <li>• Type 170s (26 ints)</li> </ul>	<ul style="list-style-type: none"> <li>• Signal controller upgrades (to Type 170s) <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Huntington Dr</li> <li>• Baldwin Ave</li> <li>• Santa Anita Ave</li> </ul> </li> </ul>
Roadside Equipment Maintenance	PEEK Traffic	Same as Existing <b>(HIGH)</b>
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc:               <ul style="list-style-type: none"> <li>• Foothill Blvd</li> <li>• Colorado Blvd</li> <li>• Duarte Rd</li> <li>• Las Tunas Dr</li> <li>• Live Oak Ave</li> <li>• Baldwin Ave</li> <li>• Santa Anita Ave</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• At a minimum, the same corridors as “Existing” <b>(HIGH)</b></li> <li>• TBD per TCS capabilities <b>(MEDIUM)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• Caltrans – 3 ints</li> <li>• LACO – 3 ints</li> <li>• Pasadena – 1 int</li> <li>• Monrovia – 2 ints</li> <li>• Temple City – 1 int</li> <li>• El Monte – 1 int</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	Inductive Loops	<ul style="list-style-type: none"> <li>• Inductive Loops <b>(HIGH)</b></li> <li>• VIDs (HIGH) <ul style="list-style-type: none"> <li>• Huntington/Santa Clara</li> <li>• Huntington/Santa Anita</li> </ul> </li> </ul>
CCTV Capabilities	N/A	<ul style="list-style-type: none"> <li>• View Caltrans I-210 Fwy cameras <b>(HIGH)</b></li> <li>• View adjacent City arterial images – view only, no camera control (e.g., Colorado Blvd in Pasadena) <b>(HIGH)</b></li> <li>• View City major arterials and/or intersections (Foothill Blvd &amp; Peck Rd) <b>(HIGH)</b></li> <li>• Planned Installations <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Foothill/Baldwin</li> <li>• Huntington/Baldwin</li> <li>• Colorado/Huntington</li> <li>• I-210/Santa Anita</li> </ul> </li> </ul>
Primary Communications	<ul style="list-style-type: none"> <li>• Huntington Dr <ul style="list-style-type: none"> <li>• Michilinda to Fifth</li> <li>• TWP of 23 &amp; 18 pairs of #19 cable</li> </ul> </li> <li>• Live Oak Ave <ul style="list-style-type: none"> <li>• Las Tunas to Tyler</li> <li>• TWP of 6 pair of #19 cable</li> </ul> </li> <li>• Baldwin Ave <ul style="list-style-type: none"> <li>• Camino Real to Colorado</li> <li>• Conduit only</li> </ul> </li> <li>• Santa Anita Ave <ul style="list-style-type: none"> <li>• Huntington to Colorado</li> <li>• Conduit only</li> </ul> </li> <li>• All other signalized intersections use phone drops (various locations)</li> <li>• Several LACO WWV antennas</li> </ul>	<ul style="list-style-type: none"> <li>• Huntington Dr <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Michilinda to Fifth</li> <li>• Install fiber-optic cable in existing or planned conduit</li> </ul> </li> <li>• Baldwin Ave <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Camino Real to Foothill</li> <li>• Install fiber-optic cable in existing or planned conduit</li> </ul> </li> <li>• Santa Anita Ave <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Duarte to Foothill</li> <li>• Install fiber-optic cable in existing or planned conduit</li> </ul> </li> <li>• City will base plans on recommendations from SGVTF project <b>(HIGH)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Traveler Information Systems (TIS)	N/A	<ul style="list-style-type: none"> <li>• CMS (HIGH)               <ul style="list-style-type: none"> <li>• Santa Anita/Huntington</li> <li>• Santa Anita/I-210 Fwy</li> <li>• Signs applied for as part of FHWA ITS Integration Grant</li> </ul> </li> <li>• Kiosks (Mall &amp; Track) &amp; Intranet are TIS possibilities in the future <b>(LOW)</b></li> <li>• Integration with the Gold Line is also a future possibility <b>(LOW)</b></li> </ul>
Agency Coordination & SGVTF Participation	With Caltrans, LACO, and adjacent Cities (per above)	<ul style="list-style-type: none"> <li>• Would like to control their own TCS <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Hands-on signal monitoring &amp; control <b>(HIGH)</b></li> <li>• Will share all relevant TCS information <b>(HIGH)</b></li> </ul> </li> <li>• Signal timing coordination with other Agencies along corridors <b>(HIGH)</b></li> <li>• Would allow another Agency to take control of TCS operations               <ul style="list-style-type: none"> <li>• Pre-planned events <b>(LOW)</b></li> <li>• Incidents <b>(LOW)</b></li> </ul> </li> <li>• Need signed MOUs to direct policy <b>(HIGH)</b></li> </ul>
Maintenance Budget	<ul style="list-style-type: none"> <li>• \$112 K</li> <li>• \$5 K/signal for 11 non-City signals</li> </ul>	City recognizes that they will most likely need to increase their O&M budget for TCS operations <b>(MEDIUM)</b>
On-Going O&M for SGVTF Operations	N/A	<ul style="list-style-type: none"> <li>• City feels that they can provide O&amp;M for TCS &amp; ITS devices once capital improvements are installed <b>(MEDIUM)</b></li> <li>• Benefit of any TCS or ITS devices will have to be shown to City management <b>(HIGH)</b></li> </ul>
SGVTF Agency Level	N/A	Level 2B
Possible Early Deployment Opportunities	N/A	Coordinate with existing City FHWA ITS grant <ul style="list-style-type: none"> <li>• TCS implementation</li> <li>• CCTV installation</li> <li>• VIDs expansion</li> <li>• CMS installation</li> </ul>

## 6.4 CITY OF AZUSA

Interview Conducted: November 3<sup>rd</sup>, 2003

Primary Agency Contact: Nasser Abbaszadeh (City Engineer, City of Azusa)  
(626) 812-5261

Interview Attendees: Lance Miller (City of Azusa, Engineering Associate)  
Jane White (LACO DPW)  
Chuck Dankocsik (TransCore)  
David Miller (TransCore)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>• Azusa Pacific University</li> <li>• Citrus College</li> <li>• Costco, Wholesale, etc.</li> </ul>	Same as Existing
Main Arterials & Intersections	<p><u>Arterials</u></p> <ul style="list-style-type: none"> <li>• Foothill Blvd (E/W)</li> <li>• Citrus Ave (N/S)</li> <li>• Alostta Ave (E/W)</li> <li>• Azusa Ave (N/S)</li> <li>• Arrow Hwy (E/W)</li> </ul> <p><u>Intersections</u></p> <ul style="list-style-type: none"> <li>• Foothill/Todd (Costco)</li> <li>• Foothill/Azusa</li> <li>• Foothill/Citrus</li> <li>• Alostta/Citrus</li> <li>• Azusa/First</li> <li>• Azusa/Gladstone</li> <li>• Azusa/Arrow</li> <li>• Citrus/Gladstone</li> <li>• Citrus/Arrow</li> <li>• Cerritos/Arrow</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>• Small "TMC" as part of departmental move to new facility (Maintenance Yard) 2Q05 <b>(HIGH)</b></li> <li>• Would like a small W/S <b>(MEDIUM)</b></li> <li>• W/S would be located in Engineering Associate's Office</li> </ul>

Item	Existing Conditions	Planned Operations
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>• Would like their own centralized TCS <b>(MEDIUM)</b></li> <li>• Primary Operations               <ul style="list-style-type: none"> <li>• Signal monitoring &amp; control <b>(HIGH)</b></li> <li>• CCTV camera management &amp; control <b>(HIGH)</b></li> <li>• Incident management <b>(LOW)</b></li> </ul> </li> </ul>
# of Signalized Intersections	52	Same as Existing
Signal Control	<ul style="list-style-type: none"> <li>• Roadside control per local intersection controller</li> <li>• Time-of-Day/Fixed Patterns</li> <li>• Currently run the same timing plans 24/7</li> <li>• 90-second cycle length</li> </ul>	<ul style="list-style-type: none"> <li>• TBD per TCS capabilities               <ul style="list-style-type: none"> <li>• Various TOD plans (AM, Midday, PM, FREE) <b>(HIGH)</b></li> <li>• Traffic responsive <b>(MEDIUM)</b></li> </ul> </li> </ul>
Primary Signal Controller	Type 170s (95%) & Type 90s (5%)	Type 170s <b>(HIGH)</b>
Roadside Equipment Maintenance	<ul style="list-style-type: none"> <li>• PEEK Traffic</li> <li>• Minor repairs/adjustments made by City staff</li> <li>• Other Agencies (Caltrans, LACO, Glendora, &amp; Covina) responsible for joint jurisdiction intersections in Azusa</li> </ul>	Same as Existing <b>(HIGH)</b>
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc:               <ul style="list-style-type: none"> <li>• Foothill Blvd (since 1998 - TBC)</li> <li>•</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Azusa Ave (NB) <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• LACO TBC synchronization</li> <li>• Controller type – 170s</li> </ul> </li> <li>• San Gabriel Ave (SB) <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• LACO TBC synchronization</li> <li>• Controller type – 170s</li> <li>• VIDs</li> </ul> </li> </ul>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• Caltrans – 7 ints</li> <li>• LACO – 8 ints</li> <li>• Covina – 1 int</li> <li>• Glendora – 1 int</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	<ul style="list-style-type: none"> <li>• Inductive Loops</li> <li>• VIDs @ 2 ints</li> </ul>	<ul style="list-style-type: none"> <li>• Inductive Loops <b>(HIGH)</b></li> <li>• Potential to install more VIDs (after observing operations) <b>(MEDIUM)</b></li> </ul>

Item	Existing Conditions	Planned Operations
CCTV Capabilities	N/A	<ul style="list-style-type: none"> <li>• Install CCTV <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Alostia/Citrus</li> <li>• Foothill/Todd</li> <li>• Azusa/Foothill</li> <li>• Citrus/1<sup>st</sup> (I-210)</li> </ul> </li> </ul>
Primary Communications	N/A	City will base plans on recommendations from SGVTF project <b>(HIGH)</b>
Traveler Information Systems (TIS)	<ul style="list-style-type: none"> <li>• Provide City construction, lanes closures, planned detours, etc.) <ul style="list-style-type: none"> <li>• City website</li> <li>• City cable TV channel (available, but not currently used for traffic-related information)</li> <li>• City utility bill notice</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Provide travel speeds along major corridors (per above) <b>(MEDIUM)</b></li> <li>• Use existing TIS options <b>(MEDIUM)</b></li> </ul>
Agency Coordination & SGVTF Participation	With LACO & Caltrans (per above)	<ul style="list-style-type: none"> <li>• Would like their own TCS <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Hands-on signal monitoring &amp; control <b>(HIGH)</b></li> <li>• Will share all relevant TCS information <b>(HIGH)</b></li> </ul> </li> <li>• Signal timing coordination with other Agencies along corridors <b>(MEDIUM)</b></li> <li>• Would allow another Agency to control TCS operations in all circumstances <b>(HIGH)</b></li> </ul>
Maintenance Budget	<ul style="list-style-type: none"> <li>• \$125-150 K but spend \$200-250 K each year with budget transfers <ul style="list-style-type: none"> <li>• 20% to Caltrans</li> <li>• 20% to LACO</li> <li>• 60% to PEEK</li> <li>• \$65,000 to energy</li> </ul> </li> <li>• Budget usually spent after 6 months</li> <li>• During a good year, the City makes \$100 K in capital improvements</li> </ul>	City recognizes that they will most likely need to increase their O&M budget <b>(MEDIUM)</b>
On-Going O&M for SGVTF Operations	N/A	City feels that they can provide O&M for TCS & ITS devices once capital improvements are installed <b>(MEDIUM)</b>
SGVTF Agency Level	N/A	Level 2A



<b>Item</b>	<b>Existing Conditions</b>	<b>Planned Operations</b>
Potential Early Deployment Opportunities	N/A	N/A

## 6.5 CITY OF BALDWIN PARK

Interview Conducted: November 6<sup>th</sup>, 2003

Primary Agency Contact: Arjan Idrnani (City of Baldwin Park)  
(626) 813-5255

Interview Attendees: Arjan Idrnani (City of Baldwin Park)  
David Lopez (City of Baldwin Park)  
Inez Yeung (LACO DPW)  
Jack Schneider (TransCore)  
George Hatstrup (MMA)

### Interview Summary:

Item	Existing Conditions/Operations	Planned Conditions/Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Through traffic on main arterials (per below)</li> <li>Industrial parks north parts of City</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing</li> <li>I-10 Freeway widening project will have major impact on corridors</li> <li>Wal-Mart (June '04)</li> </ul>
Main Arterials & Intersections	<p><u>Arterials</u></p> <ul style="list-style-type: none"> <li>Puente, Live Oak, Pacific, Maine, &amp; Francisquito Aves</li> <li>Ramona &amp; Baldwin Park Blvds</li> <li>Badillo St</li> <li>Arrow Hwy</li> </ul> <p><u>Intersections</u></p> <ul style="list-style-type: none"> <li>Main intersections where above arterials meet</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing</li> <li>Puente/Merced/Garvey (Wal-Mart)</li> </ul>
Transportation Management Center (TMC)	N/A	N/A (HIGH)
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>Would like centralized TCS (<b>MEDIUM</b>)</li> <li>Primary operations (<b>MEDIUM</b>) <ul style="list-style-type: none"> <li>Signal monitoring and control</li> </ul> </li> </ul>
# of Signalized Intersections	56	64 ( <b>HIGH</b> )
Signal Control	<ul style="list-style-type: none"> <li>Roadside control per local intersection controller</li> <li>Time-of-Day (TOD)/Fixed Patterns</li> </ul>	<ul style="list-style-type: none"> <li>TCS (<b>MEDIUM</b>)</li> <li>Time-of-Day (TOD)/Fixed Patterns (<b>MEDIUM</b>)</li> </ul>
Primary Signal Controller	Type 170Es	Same as existing ( <b>MEDIUM</b> )

Item	Existing Conditions/Operations	Planned Conditions/Operations
Roadside Equipment Maintenance	Signal Maintenance/PEEK Traffic, LACO and Caltrans	Same as existing <b>(MEDIUM)</b>
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc</li> <li>• Ramona Blvd</li> <li>• Puente Ave</li> </ul>	Same as Existing <b>(MEDIUM)</b>
Intersection Control by Other Agencies	Caltrans (I-10 and I-605 Freeways)	Same as Existing <b>(MEDIUM)</b>
Primary Detection Method	Inductive loops	<ul style="list-style-type: none"> <li>• Upgrading systems on Maine, Puente and Francisquito (LACO) <b>(HIGH)</b></li> <li>• Would like VIDs at major intersections <b>(HIGH)</b></li> </ul>
CCTV Capabilities	N/A	N/A <b>(MEDIUM)</b>
Primary Communications	Twisted pair/copper communications between signal controllers	Same as existing, but would like to migrate to Wireless (less street impact) <b>(MEDIUM)</b>
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	With Caltrans & LACO (per above)	<ul style="list-style-type: none"> <li>• Same as Existing</li> <li>• Would share (view only) all relevant TCS information with Stakeholders</li> </ul>
Maintenance Budget	\$80,000	Same as Existing
On-Going O&M for SGTVF Operations	N/A	N/A
SGVTF Agency Level	N/A	Level 2A
Possible Early Deployment Opportunities	N/A	None at this time.

## 6.6 CALTRANS

Interview Conducted: December 5<sup>th</sup>, 2003

Primary Agency Contact: Yi Tsau (Sr. Electrical Engineer, Caltrans)  
(213) 897-4656

Interview Attendees: Allen Z. Chen (Caltrans/ITS New Technology)  
Yi Tsau (Caltrans/Office of Traffic Design)  
Jeff Pletyak (LACO DPW)  
Jack Schneider (TransCore)  
George Hatstrup (MMA)  
Marc Porter (MMA)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	N/A	N/A
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Rosemead Blvd (AM/PM rush, some weekends)</li> <li>Foothill Blvd (much less than Rosemead)</li> <li>Both interconnected to CTNet</li> </ul>	Same as Existing
Transportation Management Center (TMC)	<ul style="list-style-type: none"> <li>13,000 sq. ft facility Downtown LA</li> <li>24/7 operations w/ signal monitoring 9:00 AM to 5:00 PM</li> <li>Staff: 120/peak: 80/non-peak</li> <li>Co-operated w/ CHP</li> <li>Usage: <ul style="list-style-type: none"> <li>Incident &amp; event management</li> <li>Emergency Operations</li> <li>ITS device mgmt/control</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>New facility in Glendale to open July, 2004 <b>(HIGH)</b></li> <li>Signal monitoring 24/7 <b>(HIGH)</b></li> <li>Usage: Same as Existing <b>(HIGH)</b> plus <ul style="list-style-type: none"> <li>Signal monitoring/control <b>(HIGH)</b></li> <li>Transit coordination <b>(MEDIUM)</b></li> <li>Law enforcement <b>(MEDIUM)</b></li> </ul> </li> </ul>
Traffic Control System (TCS)	<ul style="list-style-type: none"> <li>CTNet v1.5</li> <li>Quicnet (Ramp intersections)</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing <b>(HIGH)</b></li> <li>40 locations added to CTNet coverage/year (roadside control and ramp intersections) <b>(HIGH)</b></li> </ul>
# of Signalized Intersections	195 (est.)	Same as Existing <b>(HIGH)</b>
Signal Control	<ul style="list-style-type: none"> <li>Roadside control per local intersection controller</li> <li>Time-of-Day/Fixed, Pre-planned scenarios, Special Events, Planned events and LRT priority patterns</li> </ul>	Same as Existing <b>(HIGH)</b>

Item	Existing Conditions	Planned Operations
Primary Signal Controller	<ul style="list-style-type: none"> <li>• 170E/C8v4 (6%)</li> <li>• 170/C8 (43%)</li> <li>• Other (50%)</li> <li>• 2070 (1)</li> </ul>	Same as Existing plus plans to migrate 20 170s to 2070L controllers by EOFY (not all in SGVTF area) <b>(HIGH)</b>
Roadside Equipment Maintenance	Caltrans Maintenance	Same as Existing <b>(HIGH)</b>
Signal Coordination	TOD plans	Same as Existing <b>(HIGH)</b>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• LACODPW 6 (est.)</li> <li>• LADOT 418</li> <li>• Other local Agencies 168 (District-wide)</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	<ul style="list-style-type: none"> <li>• 99% Inductive Loops</li> <li>• 1% VIDs</li> </ul>	Same as Existing <b>(HIGH)</b>
CCTV Capabilities	Not on arterials (all on freeways)	Same as Existing <b>(HIGH)</b>
Primary Communications	<ul style="list-style-type: none"> <li>• Copper: cabinet to data node</li> <li>• Fiber optic: data node to hubs/TMC, CCTV</li> <li>• Leased line: controller to TMC</li> </ul>	<ul style="list-style-type: none"> <li>• NTCIP standards w/ IP-based network <b>(HIGH)</b></li> <li>• Private network to wireless devices <b>(HIGH)</b></li> </ul>
Traveler Information Systems (TIS)	<ul style="list-style-type: none"> <li>• VMS (integrated w/ TCS)</li> <li>• HAR</li> <li>• Kiosk (integrated w/ TCS)</li> <li>• Internet (via ISP)</li> </ul>	Same as Existing <b>(HIGH)</b>
Agency Coordination & SGVTF Participation		TMC-to-TMC only <b>(HIGH)</b>
Maintenance Budget	<ul style="list-style-type: none"> <li>•</li> </ul>	
On-Going O&M for SGTVF Operations	Yes (for Caltrans equipment)	Same as Existing <b>(HIGH)</b>
SGVTF Agency Level		Level 3
Potential Early Deployment Opportunities		

## 6.7 CITY OF COVINA

Interview Conducted: November 13<sup>th</sup>, 2003

Primary Agency Contact: Vince Mastrosimone (City of Covina)  
(626) 858-7248

Interview Attendees: Vince Mastrosimone (City of Covina)  
C. Hui Lai (Contractor: Traffic Safety Engineering)  
Jane White (LACO DPW)  
Jack Schneider (TransCore)  
George Hatstrup (MMA)

Interview Summary:

Item	Existing Conditions/Operations	Planned Conditions/Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Walmart/Theater complex/Toys R Us (on Azusa)</li> <li>Ikea/Eastland Shopping Center (on Barranca)</li> </ul>	Same as Existing
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Azusa Ave</li> <li>Grand Ave</li> <li>Barranca Ave</li> <li>Azusa/Arrow Hwy</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>Would like a small workstation (W/S) <b>(HIGH)</b></li> <li>W/S would be located in Engineering Dept. and operated 8:00 AM to 5:00 PM, M-F <b>(HIGH)</b></li> </ul>

Item	Existing Conditions/Operations	Planned Conditions/Operations
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>• Would like their own, centralized TCS <b>(HIGH)</b></li> <li>• Primary Operations:               <ul style="list-style-type: none"> <li>• Signal monitoring &amp; control <b>(HIGH)</b></li> <li>• Incident mgmt <b>(HIGH)</b></li> <li>• Event management <b>(LOW)</b></li> <li>• Emergency ops <b>(HIGH)</b></li> <li>• Law enforcement <b>(LOW)</b></li> <li>• Obtain better information re: field operations to improve O&amp;M <b>(HIGH)</b></li> </ul> </li> <li>• Remote access to TCS for off-site consultant <b>(HIGH)</b></li> <li>• Also recommends a workstation located at Police Department <b>(MEDIUM)</b></li> </ul>
# of Signalized Intersections	49	Same as Existing
Signal Control	<ul style="list-style-type: none"> <li>• Roadside control per local intersection controller</li> <li>• Time-of-Day (TOD)/Fixed Patterns</li> </ul>	<ul style="list-style-type: none"> <li>• TCS <b>(HIGH)</b></li> <li>• Time-of-Day (TOD)/Fixed Patterns <b>(MEDIUM)</b></li> </ul>
Primary Signal Controller	<ul style="list-style-type: none"> <li>• Type 170s with 2 Type 90s and 1 flasher</li> <li>• Note: Some controllers are too old for TCS</li> </ul>	Type 170s <b>(HIGH)</b>
Roadside Equipment Maintenance	Computer Services Company	Same as Existing
Signal Coordination	<ul style="list-style-type: none"> <li>• Direct interconnect on Azusa</li> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc:               <ul style="list-style-type: none"> <li>• Grand (TBC)</li> <li>• Barranca (TBC/needs retiming)</li> </ul> </li> </ul>	Same as Existing plus Azusa (in progress) <b>(HIGH)</b>
Intersection Control by Other Agencies	LACO (6 intersections on Grand Ave)	Same as Existing
Primary Detection Method	Inductive loops	Would like less intrusive detection <b>(e.g., VIDS, etc.) (HIGH)</b>
CCTV Capabilities	N/A	CCTV at major intersections and high volume locations <b>(HIGH)</b>

Item	Existing Conditions/Operations	Planned Conditions/Operations
Primary Communications	<ul style="list-style-type: none"> <li>• Twisted pair/copper communications between signal controllers</li> <li>• WWV on TBC intersections</li> </ul> Note: installing empty conduit (4-1" multicell) on Azusa (January '04)	<ul style="list-style-type: none"> <li>• Wireless communications between roadside equipment <b>(HIGH)</b></li> <li>• Fiber optics back to central location <b>(HIGH)</b></li> </ul>
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	With LACO (per above)	<ul style="list-style-type: none"> <li>• Would share all relevant TCS information with Stakeholders <b>(HIGH)</b></li> <li>• Would allow LACO to take control of TCS operations: <b>(MEDIUM)</b> <ul style="list-style-type: none"> <li>• Emergency operations</li> </ul> </li> </ul>
Maintenance Budget	\$60,000	Same as Existing
On-Going O&M for SGTVF Operations	N/A	N/A
SGVTF Agency Level	N/A	Level 2B
Possible Early Deployment Opportunities	N/A	<ul style="list-style-type: none"> <li>• Replace old, mismatched controllers causing timing/synchronization problems (Barranca @ Workman)</li> </ul>



## 6.8 CITY OF DUARTE

Interview Conducted: November 12<sup>th</sup>, 2003

Primary Agency Contact: Steve Esbenshade (Engineering Division Manager  
City of Duarte)  
(626) 35707931

Interview Attendees: Steve Esbenshade (Duarte)  
Jane White (LACO DPW)  
Chuck Dankocsik (TransCore)  
David Miller (TransCore)

### Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Primarily commuter traffic</li> <li>Huntington Dr               <ul style="list-style-type: none"> <li>Major "pass-thru" arterial</li> <li>Traffic patterns mimic those of the parallel I-210 Fwy</li> </ul> </li> <li>City of Hope Hospital is largest employer (located on Duarte Rd)</li> </ul>	Same as Existing
Main Arterials & Intersections	<p><u>Arterials:</u></p> <ul style="list-style-type: none"> <li>Huntington Dr (Bounds City limits &amp; traffic is concentrated along this corridor)</li> <li>Highland Ave</li> <li>Central Ave</li> <li>Duarte Rd</li> </ul> <p><u>Intersections:</u></p> <ul style="list-style-type: none"> <li>Huntington/Highland</li> <li>Mt. Olive Dr/Huntingon Dr//I-605/I-210</li> </ul> <p><u>Junior High and High School</u></p> <ul style="list-style-type: none"> <li>Located @ Highland/Central (just south of Huntington Dr)</li> <li>Creates congestion problems in the AM Peak</li> </ul>	Same as Existing

Item	Existing Conditions	Planned Operations
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>• Would like a small W/S <b>(MEDIUM)</b></li> <li>• W/S location               <ul style="list-style-type: none"> <li>• Engineer's office (1 W/S) <b>(HIGH)</b></li> <li>• City server room (2 W/Ss) <b>(MEDIUM)</b></li> </ul> </li> </ul>
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>• Would like their own, centralized TCS <b>(MEDIUM)</b></li> <li>• Would like to be "Agency B" on another Agency's TCS <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• LACO DPW <b>(MEDIUM)</b></li> </ul> </li> <li>• Primary Operations:               <ul style="list-style-type: none"> <li>• Signal monitoring &amp; control <b>(HIGH)</b></li> <li>• Incident management <b>(LOW)</b></li> <li>• Event management <b>(LOW)</b></li> <li>• Transit coordination <b>(MEDIUM)</b></li> <li>• Emergency Operations <b>(LOW)</b></li> <li>• Control other ITS devices <b>(LOW)</b></li> <li>• Obtain better information re: field operations to improve O&amp;M <b>(MEDIUM)</b></li> </ul> </li> </ul>
# of Signalized Intersections	11	<p>Same as Existing, plus new signals located at:</p> <ul style="list-style-type: none"> <li>• Central/Highland (MTA participating in construction due to Gold Line expansion)</li> <li>• Crestfield/Huntington</li> <li>• Mountain @ Home Depot/WalMart shopping center entrance/exit (to be shared 50/50 w/ Monrovia)</li> </ul>
Signal Control	<ul style="list-style-type: none"> <li>• Roadside control per local intersection controller</li> <li>• Time-of-day/Fixed Patterns</li> </ul>	<ul style="list-style-type: none"> <li>• TBD per TCS capabilities               <ul style="list-style-type: none"> <li>• Various TOD plans (AM, Midday, PM, FREE) <b>(HIGH)</b></li> <li>• Traffic Responsive <b>(MEDIUM)</b></li> <li>• Adaptive <b>(MEDIUM)</b></li> </ul> </li> </ul>
Primary Signal Controller	Type 170s	Type 170s <b>(HIGH)</b>
Roadside Equipment	PEEK Traffic	PEEK <b>(HIGH)</b>

Item	Existing Conditions	Planned Operations
Maintenance		
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc               <ul style="list-style-type: none"> <li>• Huntington Dr. (August '03 timing update)</li> <li>• Buena Vista (since 1998)</li> <li>• Duarte (since 1998)</li> <li>• All signals synchronized &amp; operate AM, Midday, PM, &amp; FREE timing plans</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Pre-planned scenarios for peaks or incidents on I-210 (if coordinated with other Cities) <b>(HIGH)</b></li> <li>• Transit priority <b>(MEDIUM)</b></li> <li>• At-grade crossings for LRT coordination (Gold Line Expansion) <b>(MEDIUM)</b></li> </ul>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• Caltrans – 4 ints (I-210 interchanges)</li> <li>• Monrovia – 2 ints</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	Inductive Loops	<ul style="list-style-type: none"> <li>• Inductive Loops <b>(HIGH)</b></li> <li>• Install VIDs @ major intersections along Mt. Olive, Mountain, &amp; Buena Vista <b>(MEDIUM)</b></li> </ul>
CCTV Capabilities	N/A	<ul style="list-style-type: none"> <li>• Would like VIDs to "double" as CCTV surveillance <b>(HIGH)</b></li> </ul>
Primary Communications	<ul style="list-style-type: none"> <li>• Abandoned copper interconnect</li> <li>• LACO using next generation WWV (GPS-based UTBS system) on Huntington Dr</li> </ul>	<ul style="list-style-type: none"> <li>• Use next generation WWV (GIS-based UTBS system) at other signalized intersections <b>(MEDIUM)</b></li> <li>• "Piggyback" on existing LACO permitting system leased line <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• During the interview, the City of Duarte mentioned that there is already an existing communications link between the City &amp; LA County DPW</li> <li>• To the extent possible, the City would like to use this link for SGVTF, rather than install new communications</li> </ul> </li> <li>• City will base plans on recommendations from SGVTF project <b>(HIGH)</b></li> </ul>
Traveler Information Systems (TIS)	N/A	Install "TrailBlazer" signs along Mountain and/or Buena Vista (between I-210 & Arrow Hwy) <b>(LOW)</b>

Item	Existing Conditions	Planned Operations
Agency Coordination & SGVTF Participation	With LACO, Caltrans, and adjacent Cities (per above)	<ul style="list-style-type: none"> <li>• Centralized TCS (<b>MEDIUM</b>)               <ul style="list-style-type: none"> <li>• Hands-on signal monitoring &amp; control (<b>HIGH</b>)</li> <li>• Incident/event management (<b>LOW</b>)</li> <li>• Transit coordination (<b>MEDIUM</b>)</li> <li>• Emergency ops (<b>LOW</b>)</li> <li>• Control ITS devices (<b>LOW</b>)</li> <li>• Obtain better information from field regarding operations to improve O&amp;M (<b>MEDIUM</b>)</li> <li>• Will share all relevant TCS information (<b>HIGH</b>)</li> </ul> </li> <li>• Want their own TCS but want to be "Agency B" on someone else's TCS (<b>HIGH</b>)               <ul style="list-style-type: none"> <li>• LACO (<b>MEDIUM</b>)</li> </ul> </li> <li>• Want bare minimum that SGVTF project has to offer (City staff do not have time for hands-on TCS monitoring and/or control) (<b>HIGH</b>)</li> <li>• Would like to coordinate TCS operations w/ other Agencies to ensure corridor management, improved traffic flow, &amp; congestion reduction (<b>HIGH</b>)</li> <li>• Would allow another Agency to control TCS operations (dependent on signed MOUs) (<b>HIGH</b>)</li> </ul>
Maintenance Budget	\$12,000	City recognizes that they will most likely need to increase their O&M budget ( <b>MEDIUM</b> )
On-Going O&M for SGVTF Operations	N/A	<ul style="list-style-type: none"> <li>• City willing to devote funds to TCS O&amp;M (<b>HIGH</b>)</li> <li>• Funding subject to administration/council approval</li> </ul>
SGVTF Agency Level	N/A	Level 2A
Potential Early Deployment Opportunities	N/A	N/A

## 6.9 CITY OF EL MONTE

Interview Conducted: November 4<sup>th</sup>, 2003

Primary Agency Contact: Kev Tcharkhoutian (City Engineer, city of El Monte)  
(626) 580-2061

Interview Attendees: Kev Tcharkhoutian (City Engineer)  
Fernando Villaluna (LACO DPW)  
Jack Schneider (TransCore)  
Mark Porter (MMA)  
George Hatstrup (MMA)

### Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Aquatic Center (Tyler/Archer)</li> <li>MTA Bus Depot (on Santa Anita)</li> <li>El Monte Airport</li> <li>Flair Business Park</li> </ul>	Same as Existing
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Valley Blvd (I-10 Bypass)</li> <li>Lower Azusa Rd (I-10 Bypass)</li> <li>Garvey Ave</li> <li>Baldwin Ave</li> <li>Johnson Ave &amp; Valley Blvd (City Hall) at close of Business</li> <li>Train can block some inter-sections for long periods of time               <ul style="list-style-type: none"> <li>Ramona Blvd</li> <li>Baldwin Ave</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing</li> <li>RR Grade separations to be built               <ul style="list-style-type: none"> <li>Ramona Blvd (2004)</li> <li>Baldwin Ave (2007)</li> </ul> </li> </ul>
Transportation Management Center (TMC)	N/A	N/A
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>Not interested in actively managing or operating a TCS (no budget) <b>(HIGH)</b></li> <li>However, would like to be able to monitor and control signals from the City Hall <b>(MEDIUM)</b></li> </ul>
# of Signalized Intersections	67	Would like to signalize 3 more intersections
Signal Control	Fixed Pattern/Time-of-Day	Same as Existing <b>(HIGH)</b>
Primary Signal Controller	Type 170E	Same as Existing <b>(HIGH)</b>
Roadside Equipment Maintenance	PEEK Traffic and City Staff	Same as Existing

Item	Existing Conditions	Planned Operations
Signal Coordination	<ul style="list-style-type: none"> <li>LACO DPW Tier 1 synchronization via TBC, WWV, etc:               <ul style="list-style-type: none"> <li>Santa Anita Ave</li> <li>Valley Blvd</li> <li>Peck Rd</li> <li>Garvey Ave</li> <li>Baldwin Ave</li> </ul> </li> </ul>	Would like to make improvements along Garvey, Baldwin, and Lower Azusa <b>(HIGH)</b>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>Caltrans: 7 (at Freeway Ramps)</li> <li>LACO: 2 (shared with Temple City - Lower Azusa at Baldwin and Arden)</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	Inductive Loops	<ul style="list-style-type: none"> <li>Same as Existing <b>(HIGH)</b></li> <li>Wants VIDs in conjunction with new signalized intersections <b>(HIGH)</b></li> </ul>
CCTV Capabilities	<ul style="list-style-type: none"> <li>No CCTV</li> <li>Has red-light enforcement system at 2 ints</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Communications	<ul style="list-style-type: none"> <li>All copper wire in field</li> <li>No connection to office</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing <b>(HIGH)</b></li> <li>City will base plans on recommendations from SGVTF project <b>(HIGH)</b></li> </ul>
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	With Caltrans & LACO (per above)	<ul style="list-style-type: none"> <li>Would participate if no cost to City <b>(HIGH)</b></li> <li>Wants regional planning &amp; coordination, especially with Rosemead and Baldwin Park <b>(HIGH)</b></li> <li>Would share all relevant TCS information with stakeholders <b>(HIGH)</b></li> <li>Would cede control of TCS operations to LACO <b>(HIGH)</b> <ul style="list-style-type: none"> <li>Emergency Operations</li> <li>Incident Management</li> <li>Off-hours</li> </ul> </li> </ul>
Maintenance Budget	\$50k for city personnel and \$75k for contractors	<ul style="list-style-type: none"> <li>No increase in funding planned <b>(MEDIUM)</b></li> <li>City recognizes that they will most likely need to increase their O&amp;M budget for ITS <b>(MEDIUM)</b></li> </ul>

Item	Existing Conditions	Planned Operations
On-Going O&M for SGVTF Operations	N/A	Current City funding constraints make provision of O&M for SGVTF projects unlikely ( <b>HIGH</b> )
SGVTF Agency Level	N/A	Level 2A
Possible Early Deployment Opportunities	N/A	N/A

## 6.10 FOOTHILL TRANSIT

Interview Conducted: November 14<sup>th</sup>, 2003

Primary Agency Contact: Doran Barnes (Foothill Transit)  
323-887-4637

Interview Attendees: Chuck Dankocsik (TransCore)  
Jack Schneider (TransCore)

### Interview Summary:

Item	Conditions/Operations
General Service Information	<ul style="list-style-type: none"> <li>• About 17 million riders per year</li> <li>• Service area for 21 Cities in the San Gabriel and Pomona Valleys; North of the I-210; South of SR 60; LA County line to the East, and Downtown LA to the West</li> <li>• Major routes are mostly east/west, including the El Monte Busway (on the I-10), Foothill Blvd/Huntington Dr, Arrow Highway, Amar Road, and Colima/Golden Springs; Major north/south route: Azusa Ave (from Puente Hills to Azusa)</li> <li>• Major Destinations include Downtown LA (about 40% of ridership), El Monte Transit Station (primary hub), and CSULA</li> <li>• 306 fixed-route bus fleet (255 in service at peak hours)</li> <li>• 900 employees (including contract)</li> </ul>
Service Issues	<ul style="list-style-type: none"> <li>• Road congestion on major routes (e.g., Valley Blvd, Puente Hills Mall, Azusa/Colima, etc.)</li> <li>• Too many and mis- or un-timed signals</li> <li>• Extra (unscheduled) service and adding running time to schedules to attempt to mitigate delays</li> <li>• No process in place to notify Agency in case of planned construction/closures (Caltrans provides some notification, but not always timely)</li> <li>• Need better coordination with the Gold Line (both existing and future extension)</li> </ul>



Item	Conditions/Operations
ITS/Systems	<ul style="list-style-type: none"> <li>• Website shows schedules and has links to MTA and SCAG for trip planning and regional schedules</li> <li>• Route data is sent to the MTA</li> <li>• Currently doing analysis on implementing AVL and real running time tracking (potential implementation in 2005)</li> <li>• Held informal discussions with Cities regarding transit signal priority</li> <li>• Farebox software (GFI) initially had problems following recent upgrade but have been since resolved and working properly (both technical and procedural)</li> <li>• Looking into integrating farebox system with upcoming AVL system to provide improved route and ridership information</li> <li>• May migrate to County-wide farebox system (which may also change the way inter-Agency transfers are collected and paid)</li> </ul>
SGVTF Agency Level	Level 1 (view only)

## 6.11 CITY OF GLENDORA

Interview Conducted: November 5<sup>th</sup>, 2003

Primary Agency Contact: Chad Veinot (Traffic Engineering Technician,  
City of Glendora)  
(626) 852-4845

Interview Attendees: Chad Veinot (City of Glendora)  
Inez Yeung (LACO DPW)  
Jack Schneider (TransCore)  
George Hatstrup (MMA)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>I-210 and SR 57 Freeways (bypass)</li> <li>Lone Hill Marketplace (esp. during lunch and on weekends)</li> <li>Walmart</li> <li>Glendora High (AM and PM rushes affects Foothill)</li> </ul>	Same as Existing
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Grand Avenue</li> <li>Lone Hill</li> <li>Route 66</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	N/A
Traffic Control System (TCS)	<ul style="list-style-type: none"> <li>Very limited TCS: Econolite Aries with 4 intersections connected</li> <li>Had old Traconex TCS and Micro Master TMM-500</li> </ul>	Same as Existing ( <b>HIGH</b> ) Don't have manpower or budget to expand TCS.
# of Signalized Intersections	40	Would like to signalize four more intersections ( <b>HIGH</b> )
Signal Control	<ul style="list-style-type: none"> <li>Fixed Pattern/Time-of-Day</li> <li>Non-Interconnected TOD on Lone Hill</li> </ul>	Same as Existing
Primary Signal Controller	<ul style="list-style-type: none"> <li>Traconex 390's (31)</li> <li>Econolite Controllers (9)</li> </ul>	Same as Existing
Roadside Equipment Maintenance	PEEK Traffic	Same as Existing
Signal Coordination	Fixed/Time-of-Day on Route 66 and Grand Ave	Same as Existing

Item	Existing Conditions	Planned Operations
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• Caltrans (4)</li> <li>• LACO DPW (11)</li> </ul>	Additional one planned with LACO DPW at Sierra Madre/Barranca <b>(HIGH)</b>
Primary Detection Method	<ul style="list-style-type: none"> <li>• Inductive Loops (37 intersections)</li> <li>• VIDs (2 intersections)</li> </ul>	No plans to change <b>(HIGH)</b>
CCTV Capabilities	Can dial in to VIDs and view images using Autoscope.	Same as Existing
Primary Communications	Copper wire in field with no connection to center.	Same as Existing
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	N/A	<ul style="list-style-type: none"> <li>• Primarily would like to coordinate with County and Caltrans <b>(HIGH)</b></li> <li>• Would share all relevant TCS information with Stakeholders <b>(HIGH)</b></li> <li>• Would cede control of TCS operations to LACO for Emergency Operations <b>(HIGH)</b></li> </ul>
Maintenance Budget	\$130k for spare parts.	<ul style="list-style-type: none"> <li>• City recognizes that they will most likely need to increase their ITS O&amp;M budget <b>(MEDIUM)</b></li> <li>• No increase in funding planned <b>(HIGH)</b></li> </ul>
On-Going O&M for SGVTF Operations	N/A	No funding available to operate & maintain a more robust TCS <b>(HIGH)</b>
SGVTF Agency Level	N/A	Level 2A
Possible Early Deployment Opportunities	N/A	N/A

## 6.12 CITY OF IRWINDALE

Interview Conducted: November 14<sup>th</sup>, 2003

Primary Agency Contact: Kwok Tam (City Engineer, City of Irwindale)  
(626) 430-2212

Interview Attendees: Kwok Tam (City of Irwindale)  
Jose Loera (City of Irwindale)  
Inez Yeung (LACO DPW)  
Chuck Dankocsik (TransCore)  
David Miller (TransCore)

### Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Ready Pac Products – 1,700 employees</li> <li>Charter Communications - 970 employees</li> <li>Décor-Active Specialties - 800 employees</li> <li>Miller Brewing Company - 750 employees</li> </ul>	Same as Existing
Main Arterials & Intersections	<p><u>Corridors</u></p> <ul style="list-style-type: none"> <li>Foothill Blvd</li> <li>Irwindale Ave</li> <li>Arrow Hwy</li> <li>Live Oak Ave</li> <li></li> </ul> <p><u>Intersections (LOS E or F)</u></p> <ul style="list-style-type: none"> <li>Foothill/Irwindale</li> <li>Irwindale/I-210 Fwy (on/off ramps)</li> <li>Irwindale/Arrow</li> <li>Arrow Hwy/Live Oak</li> <li>Arrow Hwy/I-605 Fwy (on/off-ramps)</li> <li>Live Oak/I-605 Fwy (on/off-ramps)</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>Want a small TMC (<b>HIGH</b>) <ul style="list-style-type: none"> <li>Located behind City Hall (<b>MEDIUM</b>)</li> <li>8:00 AM – 6:00 PM operations (<b>HIGH</b>)</li> <li></li> </ul> </li> </ul>

Item	Existing Conditions	Planned Operations
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>• Want their own centralized TCS <b>(HIGH)</b></li> <li>• Primary Operations               <ul style="list-style-type: none"> <li>• Signal monitoring &amp; control <b>(HIGH)</b></li> <li>• Incident management <b>(HIGH)</b></li> <li>• Event management <b>(HIGH)</b></li> <li>• Emergency operations <b>(HIGH)</b></li> <li>• Law enforcement <b>(MEDIUM)</b></li> </ul> </li> </ul>
# of Signalized Intersections	32	<ul style="list-style-type: none"> <li>• 2004 Plans               <ul style="list-style-type: none"> <li>• 8 signalized intersections will be upgraded (Irwindale @ 1<sup>st</sup>, Business Park, Gladstone, Tapia/Martinez &amp; Cypress; Arrow Hwy @ Morada, Azusa Cyn Rd) <b>(HIGH)</b></li> <li>• 2 new signalized intersections will be added (4<sup>th</sup> @ Arrow Hwy; Ramona @ Earl) <b>(HIGH)</b></li> </ul> </li> </ul>
Signal Control	<ul style="list-style-type: none"> <li>• Time-of-Day/Fixed Pattern</li> <li>• Roadside control per local intersection controller</li> </ul>	<ul style="list-style-type: none"> <li>• TBD per TCS capabilities               <ul style="list-style-type: none"> <li>• Various TOD plans (AM, Midday, PM, FREE) <b>(HIGH)</b></li> <li>• Pre-planned scenarios &amp; special/planned events <b>(HIGH)</b></li> </ul> </li> </ul>
Primary Signal Controller	Type 170Es	Upgrade controllers to Type 2070s w/ GPS time base units and/or fiber optic cable <b>(HIGH)</b>
Roadside Equipment Maintenance	LACO DPW	LACO DPW <b>(MEDIUM)</b>
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc               <ul style="list-style-type: none"> <li>• Irwindale Ave</li> <li>• Foothill Blvd</li> <li>• Arrow Hwy</li> <li>• Live Oak Ave</li> </ul> </li> <li>• City would like LACO DPW to update the signal timings along these corridors</li> </ul>	<ul style="list-style-type: none"> <li>• At a minimum, the same corridors as “Existing” <b>(HIGH)</b></li> <li>• TBD per TCS capabilities <b>(MEDIUM)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Intersection Control by Other Agencies	Caltrans – 6 ints LACO – 1 int Baldwin Park – 4 ints Monrovia – 1 int	Same as Existing <b>(HIGH)</b>
Primary Detection Method	Inductive Loops	<ul style="list-style-type: none"> <li>• Inductive Loops <b>(MEDIUM)</b></li> <li>• Interested in a VIDs pilot project along major corridors &amp; near business centers <b>(HIGH)</b></li> </ul>
CCTV Capabilities	N/A	<ul style="list-style-type: none"> <li>• Future installations <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Foothill/Irwindale</li> <li>• 1<sup>st</sup>/Irwindale</li> <li>• Arrow Hwy/Irwindale</li> <li>• All I-210 &amp; I-605 Fwy interchanges</li> <li>• Live Oak /Speedway (Irwindale Speedway)</li> <li>• Arrow Hwy/Live Oak (East &amp; West ends)</li> <li>• Peck/Live Oak</li> </ul> </li> <li>• City is concerned w/ visibility issues for VIDs and/or CCTV due to dust from nearby mining operations <b>(MEDIUM)</b></li> </ul>
Primary Communications	N/A	<ul style="list-style-type: none"> <li>• Fiber-optics <b>(MEDIUM)</b></li> <li>• City will base plans on recommendations from SGVTF project <b>(HIGH)</b></li> </ul>
Traveler Information Systems (TIS)	N/A	<ul style="list-style-type: none"> <li>• CMS (Planned) <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Future Gold Line station on Irwindale/Foothill</li> <li>• Live Oak/Speedway (Irwindale Speedway)</li> </ul> </li> </ul>
Agency Coordination & SGVTF Participation	N/A	<ul style="list-style-type: none"> <li>• Would like to control their own TCS <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Hands-on signal monitoring &amp; control <b>(HIGH)</b></li> <li>• Will share all relevant TCS information <b>(HIGH)</b></li> </ul> </li> <li>• Signal timing coordination with other Agencies along corridors <b>(HIGH)</b></li> <li>• Would <u>NEVER</u> allow another Agency to control TCS operations in any circumstance <b>(HIGH)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Maintenance Budget	\$50 K	City recognizes that they will most likely need to increase their O&M budget <b>(MEDIUM)</b>
On-Going O&M for SGTVF Operations	N/A	City feels that they can provide O&M for TCS & ITS devices once capital improvements are installed <b>(MEDIUM)</b>
SGVTF Agency Level	N/A	Level 2B
Potential Early Deployment Opportunities	N/A	N/A

### 6.13 CITY OF LA PUENTE

Interview Conducted: November 12<sup>th</sup>, 2003

Primary Agency Contact: Bill Woolard (Community Service Director,  
City of La Puente)  
(626) 570-5067

Interview Attendees: Bill Woolard (City of La Puente)  
Gregg Yamachika (City Planner, City of La Puente)  
Joe Boada (City of La Puente)  
Jack Schneider (TransCore)  
Inez Yeung (LACO DPW)  
George Hatstrup (MMA)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Commuter through traffic (esp. to the Cities of Industry and West Covina)</li> </ul>	Same as Existing
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Valley Blvd</li> <li>Hacienda Blvd (esp. during AM/PM peaks) – worst area is between Francisquito Ave and Amar Rd</li> <li>Amar Rd</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	N/A
Traffic Control System (TCS)	N/A	No real need. Would like to access signal and pedestrian timing information sometimes. <b>(MEDIUM)</b>
# of Signalized Intersections	11	11
Signal Control	<ul style="list-style-type: none"> <li>Fixed Pattern/Time-of-Day</li> <li>Pre-planned Scenarios</li> </ul>	Same as Existing
Primary Signal Controller	Type 170's	Same as Existing
Roadside Equipment Maintenance	LA County	Same as Existing
Signal Coordination	Get information from LA County	Interconnect project along Temple Ave from Ardilla Ave to Del Valle Ave (6 intersections) should be complete by January 2004. <b>(HIGH)</b>



Item	Existing Conditions	Planned Operations
Intersection Control by Other Agencies	None by Caltrans; LACO operates and maintains signals in City	Same as Existing
Primary Detection Method	Inductive Loops	No plans to change. <b>(HIGH)</b>
CCTV Capabilities	None	N/A
Primary Communications	<ul style="list-style-type: none"> <li>• Copper wire interconnect in field.</li> <li>• Radio (3 GPS and 2 WWV) comm. with controllers on Temple</li> </ul>	N/A
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	Coordination by LA County coordination projects.	<ul style="list-style-type: none"> <li>• Supports SGVTF project provided City has input with timing plans and there is no cost to City. <b>(HIGH)</b></li> <li>• Would particularly like to coordinate with City of Industry. <b>(HIGH)</b></li> <li>• Would share all relevant TCS information with Stakeholders <b>(HIGH)</b></li> <li>• Would cede control to LACO provided City participates in synchronization/timing process. <b>(HIGH)</b></li> </ul>
Maintenance Budget	Get information from LA County	<ul style="list-style-type: none"> <li>• No increase in funding planned <b>(HIGH)</b></li> <li>• City recognizes that they will most likely need to increase their ITS O&amp;M budget <b>(MEDIUM)</b></li> </ul>
On-Going O&M for SGVTF Operations	N/A	No money available. <b>(HIGH)</b>
SGVTF Agency Level	N/A	Level 2A
Potential Early Deployment Opportunities	N/A	N/A

## 6.14 LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

Interview Conducted: November 17<sup>th</sup>, 2003

Primary Agency Contact: Jane White (LACO DPW)  
(626) 300-4725

Interview Attendees: Jane White (LACO DPW)  
Mary Amundson (LACO DPW)  
Jeff Pletyak (LACO DPW)  
Inez Yeung (LACO DPW)  
Chuck Dankocsik (TransCore)  
Jack Schneider (TransCore)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Area of interest includes unincorporated areas in SGV, esp. Altadena and East LA, and LACO operations in SGV</li> <li>E. LA sometimes used for R&amp;D</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing</li> <li>3<sup>rd</sup> Street w/ Light Rail Priority <b>(HIGH)</b></li> <li>Whittier Blvd. to get (LADOT) Rapid Bus TPS <b>(HIGH)</b></li> </ul>
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Whittier Blvd</li> <li>Altadena/Whittier, Atlantic/Beverly, Atlantic/Olympic, Huntington/Rosemead, Live Oak/Myrtle/Peck, Huntington/San Gabriel, Colorado/Rosemead, Colorado/Michilinda, Eastern/State University</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing</li> <li>Signals on Rosemead Blvd to revert to local Agencies (from Caltrans – by January 2005) <b>(HIGH)</b></li> </ul>
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>9,000 sq. ft. TMC to open 7/04: <b>(HIGH)</b> <ul style="list-style-type: none"> <li>To operate 6AM-7PM M-F (15 operators at peak hours)</li> <li>Signal monitoring/control</li> <li>Incident management</li> <li>Event management</li> <li>Transit coordination</li> <li>Other ITS devices</li> </ul> </li> <li>Maintenance Yard co-location <b>(HIGH)</b></li> </ul>
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>TCS (vendor TBD) <b>(HIGH)</b></li> </ul>
# of Signalized Intersections	200 (est. in project area)	Same as Existing <b>(HIGH)</b>

Item	Existing Conditions	Planned Operations
Signal Control	<ul style="list-style-type: none"> <li>Roadside control per local intersection controller</li> <li>Time-of-day/Fixed Patterns</li> </ul>	<ul style="list-style-type: none"> <li>Time-of-day/Fixed Patterns <b>(HIGH)</b></li> <li>Pre-planned scenarios <b>(HIGH)</b></li> <li>Planned events <b>(HIGH)</b></li> <li>Transit priority <b>(HIGH)</b></li> <li>LRT priority <b>(HIGH)</b></li> <li>Traffic responsive <b>(LOW)</b></li> </ul>
Primary Signal Controller	<ul style="list-style-type: none"> <li>Type 170s               <ul style="list-style-type: none"> <li>Majority LACO-1R</li> <li>Some LACO-3</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing <b>(HIGH)</b></li> <li>Some running LACO-IV after TCS implementation <b>(HIGH)</b></li> <li>Some 2070 (w/ LADOT firmware) on Whittier Blvd as part of TPS <b>(HIGH)</b></li> <li>Some controllers need CPU and firmware upgrades (to HC-11) <b>(HIGH)</b></li> <li>170E controllers to be upgraded to 170ATC (from McCain or Safetran) <b>(HIGH)</b></li> </ul>
Roadside Equipment Maintenance	LACO	Same as Existing <b>(HIGH)</b>
Signal Coordination	<ul style="list-style-type: none"> <li>LACO DPW Tier 1 synchronization via TBC, WWV, etc:</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing <b>(HIGH)</b></li> <li>Timing plans to be reviewed triennially after TMC/TCS implementation <b>(MEDIUM)</b></li> </ul>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>Caltrans (Rosemead, Atlantic/60)</li> <li>LADOT (Indiana)</li> </ul>	Rosemead signals to revert to LACO (2004-2005) <b>(HIGH)</b>
Primary Detection Method	<ul style="list-style-type: none"> <li>Inductive Loops</li> <li>2 VIDs</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing <b>(HIGH)</b></li> <li>May use VIDs more as technology improves <b>(LOW)</b></li> </ul>
CCTV Capabilities	N/A	<ul style="list-style-type: none"> <li>CCTV as part of TMC/TCS implementation <b>(HIGH)</b></li> <li>Send/receive images to/from other participating Agencies <b>(HIGH)</b></li> </ul>
Primary Communications	<ul style="list-style-type: none"> <li>All copper wire</li> <li>WWV radio signal for controllers</li> <li>Many interconnects are old and need replacement</li> </ul>	<ul style="list-style-type: none"> <li>As Agencies do road construction, LACODPW requests that conduit be installed (e.g., Fair Oaks/Fremont/Huntington) <b>(HIGH)</b></li> <li>3<sup>rd</sup> Street (copper) interconnect is being replaced by multi-cell fiber optic <b>(HIGH)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	<ul style="list-style-type: none"> <li>• Sponsoring various Countywide initiatives (e.g., IEN, Traffic Forums, etc.) to support/facilitate Agency coordination</li> <li>• Operates signals for several Agencies</li> </ul>	<ul style="list-style-type: none"> <li>• Same as Existing <b>(HIGH)</b></li> <li>• LACO will take control of various Agencies' signals per MOUs <b>(HIGH)</b></li> <li>• Will share all relevant data traffic data and images <b>(HIGH)</b></li> <li>• Will cede LACO signals to local Agencies during incident management <b>(MEDIUM)</b></li> </ul>
Maintenance Budget		LACO recognizes that they will need to increase their O&M budget for ITS. <b>(HIGH)</b>
On-Going O&M for SGVTF Operations	N/A	<ul style="list-style-type: none"> <li>• Yes (HIGH)</li> </ul>
SGVTF Agency Level	N/A	Level 3
Potential Early Deployment Opportunities	N/A	Install fiber-optic communications from Fair Oaks Ave along Huntington Dr & Fremont Ave to LACO DPW TMC

## 6.15 CITY OF MONROVIA

Interview Conducted: November 6<sup>th</sup>, 2003

Primary Agency Contact: Doug Benash (Deputy Director of Public Works  
City of Monrovia)  
(626) 932-5547

Interview Attendees: Doug Benash (City of Monrovia)  
Don Barker (Traffic Engineer, City of Monrovia)  
Fernando Villanluna (LACO DPW)  
Chuck Dankocsik (TransCore)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>• Downtown</li> <li>• I-210/Myrtle Ave               <ul style="list-style-type: none"> <li>• Hi-tech development area</li> </ul> </li> <li>• Huntington Dr               <ul style="list-style-type: none"> <li>• East of Myrtle Ave (business complexes)</li> <li>• West of Myrtle Ave (commercial/retail area, shopping malls, etc.)</li> </ul> </li> <li>• Mt. Sierra College</li> </ul>	Same as Existing
Main Arterials & Intersections	Arterials <ul style="list-style-type: none"> <li>• Huntington Dr</li> <li>• Mountain Ave</li> <li>• Myrtle Ave</li> </ul> <u>Intersections</u> <ul style="list-style-type: none"> <li>• Huntington Dr/Myrtle Ave</li> <li>• Huntington Dr/I-210</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>• Would like a small W/S area <b>(MEDIUM)</b></li> <li>• W/S would be located in an Engineers' office <b>(MEDIUM)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>• Would prefer to operate a TCS as "Agency B" on another Agency's TCS <b>(HIGH)</b></li> <li>• If not "Agency B", would operate their own centralized TCS <b>(MEDIUM)</b></li> <li>• Would like the TCS to automatically generate a "maintenance report" on a daily basis to better focus O&amp;M efforts (e.g., communications, detection, etc.) <b>(HIGH)</b></li> <li>• Primary Operations               <ul style="list-style-type: none"> <li>• Signal Monitoring/Control <b>(MEDIUM)</b></li> <li>• Transit coordination <b>(HIGH)</b></li> <li>• Event Management <b>(MEDIUM)</b></li> <li>• Emergency operations <b>(HIGH)</b></li> <li>• ITS device control <b>(MEDIUM)</b></li> </ul> </li> </ul>
# of Signalized Intersections	37 (3 are "flasher-only")	<ul style="list-style-type: none"> <li>• Transit Village (Myrtle/Duarte) <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• New signal for entry/exit</li> </ul> </li> </ul>
Signal Control	<ul style="list-style-type: none"> <li>• Roadside control per local intersection controller</li> <li>• Time-of-day/Fixed Patterns</li> </ul>	<ul style="list-style-type: none"> <li>• TBD per TCS capabilities               <ul style="list-style-type: none"> <li>• Various TOD plans (AM, Midday, PM, FREE) <b>(HIGH)</b></li> </ul> </li> <li>• Traffic Responsive/Adaptive <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Mountain Ave</li> <li>• Myrtle Ave</li> </ul> </li> <li>• LRT Priority <b>(MEDIUM)</b> <ul style="list-style-type: none"> <li>• Gold Line (as necessary)</li> </ul> </li> </ul>
Primary Signal Controller	Type 170s	Same as Existing <b>(HIGH)</b>
Roadside Equipment Maintenance	LA Signal	Same as Existing <b>(HIGH)</b>
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc.               <ul style="list-style-type: none"> <li>• Mountain Ave</li> <li>• Foothill Blvd</li> <li>• Huntington Dr</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• At a minimum, the same corridors as "Existing" <b>(HIGH)</b></li> <li>• TBD per TCS capabilities <b>(MEDIUM)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• Caltrans – 8 ints</li> <li>• LACO – 1 int</li> <li>• Duarte – 1 int</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	Inductive Loops	<ul style="list-style-type: none"> <li>• Same as Existing <b>(HIGH)</b></li> <li>• VIDs (MEDIUM)               <ul style="list-style-type: none"> <li>• Would like VIDs but need cost/benefit analysis</li> </ul> </li> </ul>
CCTV Capabilities	N/A	<ul style="list-style-type: none"> <li>• Transit Village (Myrtle/Duarte) <b>(HIGH)</b></li> <li>• Myrtle arterial <b>(MEDIUM)</b></li> <li>• Mountain arterial <b>(MEDIUM)</b></li> </ul>
Primary Communications	N/A	<ul style="list-style-type: none"> <li>• Potential interconnect, conduit, etc. <b>(MEDIUM)</b> <ul style="list-style-type: none"> <li>• Myrtle Ave</li> <li>• Mountain Ave</li> </ul> </li> <li>• City will base plans on recommendations from SGVTF project <b>(HIGH)</b></li> </ul>
Traveler Information Systems (TIS)	N/A	<ul style="list-style-type: none"> <li>• Portable VMS <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• For events, construction, and heavy congestion</li> </ul> </li> <li>• City Internet Website <b>(MEDIUM)</b> <ul style="list-style-type: none"> <li>• Provide real-time traffic conditions (e.g., video images, speed, travel time, etc.) along Mountain Ave, Myrtle Ave, &amp; I-210 interchanges</li> </ul> </li> <li>• Kiosks (MEDIUM)               <ul style="list-style-type: none"> <li>• Located @ Transit Village, downtown, &amp; Cal/Huntington</li> </ul> </li> </ul>

Item	Existing Conditions	Planned Operations
Agency Coordination & SGVTF Participation	With LACO, Caltrans, & Duarte (per above)	<ul style="list-style-type: none"> <li>• Want to be "Agency B" on another Agency's TCS <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Hands-on signal monitoring &amp; control <b>(MEDIUM)</b></li> <li>• Will share all relevant TCS information <b>(HIGH)</b></li> </ul> </li> <li>• Signal timing coordination with other Agencies along corridors of Regional significance <b>(MEDIUM)</b></li> <li>• Per MOUs, would allow another Agency to take control of TCS operations <ul style="list-style-type: none"> <li>• Emergency operations <b>(HIGH)</b></li> <li>• Pre-planned scenarios <b>(LOW)</b></li> <li>• After hours operations <b>(MEDIUM)</b></li> <li>• Major incidents <b>(HIGH)</b></li> <li>• Issues re: Regional movement of traffic <b>(HIGH)</b></li> </ul> </li> </ul>
Maintenance Budget	\$61.8 K	City recognizes that they will most likely need to increase their ITS O&M budget <b>(MEDIUM)</b>
On-Going O&M for SGTVF Operations	N/A	<ul style="list-style-type: none"> <li>• Understand the O&amp;M role re: TCS if LACO DPW &amp; MTA pay for capital improvements</li> <li>• However, getting the City to fund O&amp;M is approx. 0%</li> <li>• Would like to possibly participate but concerned from a resource point-of-view (e.g., staff, funding, space, etc.) <b>(HIGH)</b></li> <li>• Funding for TCS dependent on City Council <b>(HIGH)</b></li> </ul>
SGVTF Agency Level	N/A	Level 2A
Potential Early Deployment Opportunities	N/A	N/A



## 6.16 CITY OF MONTEBELLO

Interview Conducted: October 28<sup>th</sup>, 2003

Primary Agency Contact: Michael Ho (City of Montebello)  
(323) 887-1466

Interview Attendees: Michael Ho (City of Montebello)  
Inez Yeung (LACO DPW)  
Jack Schneider (TransCore)  
George Hatstrup (MMA)

Interview Summary:

Item	Existing Conditions/Operations	Planned Conditions/Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Through traffic on main arterials (per below)</li> <li>Montebello Town Center</li> </ul>	Same as Existing
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Montebello Blvd</li> <li>Garfield Ave</li> <li>Paramount Blvd</li> <li>Beverly Blvd</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>Would like a small workstation (W/S) <b>(HIGH)</b></li> <li>W/S would be located in a separate room and operated 7:30AM to 5:30PM, M-Th</li> </ul>
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>Would like their own, centralized TCS <b>(HIGH)</b></li> <li>Primary Operations: <ul style="list-style-type: none"> <li>Signal monitoring &amp; control <b>(HIGH)</b></li> <li>Incident management <b>(HIGH)</b></li> <li>Event management <b>(MEDIUM)</b></li> <li>Transit coordination <b>(MEDIUM)</b></li> <li>Control other ITS devices <b>(LOW)</b></li> <li>Obtain better information re: field operations to improve O&amp;M <b>(HIGH)</b></li> </ul> </li> </ul>
# of Signalized Intersections	78	Same as Existing

Item	Existing Conditions/Operations	Planned Conditions/Operations
Signal Control	<ul style="list-style-type: none"> <li>Roadside control per local intersection controller</li> <li>Time-of-Day (TOD)/Fixed Patterns</li> </ul>	<ul style="list-style-type: none"> <li>TCS (HIGH)</li> <li>Time-of-Day (TOD)/Fixed Patterns</li> </ul>
Primary Signal Controller	Type 170s	Same as Existing
Roadside Equipment Maintenance	PEEK Traffic	<ul style="list-style-type: none"> <li>Re-bid maintenance contract (Jan' 04)</li> <li>Old controller cabinets to be replaced to Type 332s</li> </ul>
Signal Coordination	<ul style="list-style-type: none"> <li>LACO DPW Tier 1 synchronization via TBC, WWV, etc: <ul style="list-style-type: none"> <li>Washington Blvd</li> <li>Beverly Blvd</li> <li>Whittier Blvd</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Along all major arterials (e.g., Washington Blvd, Beverly Blvd, Whittier Blvd) <b>(HIGH)</b></li> <li>Greenwood &amp; Montebello (with Monterey Park and Commerce) <b>(HIGH)</b></li> </ul>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>Caltrans (3 intersections w/ shared control)</li> <li>LACO (4 intersections)</li> </ul>	Same as Existing
Primary Detection Method	Inductive loops	Would like to migrate to VIDs on major arterials <b>(HIGH)</b>
CCTV Capabilities	N/A	May try using VIDs as CCTV source <b>(LOW)</b>
Primary Communications	Twisted pair/copper communications between signal controllers	Same as Existing
Traveler Information Systems (TIS)	N/A	Want CMS at both east and west ends of Beverly Blvd. (at City limits) <b>(MEDIUM)</b>
Agency Coordination & SGVTF Participation	With Caltrans & LACO (per above)	<ul style="list-style-type: none"> <li>Would share all relevant TCS info with Stakeholders <b>(HIGH)</b></li> <li>Would allow another Agency to take control of TCS ops: <b>(LOW)</b> <ul style="list-style-type: none"> <li>Emergency operations</li> <li>Incident management</li> <li>Off-hours</li> </ul> </li> </ul>
Maintenance Budget	N/A	N/A
On-Going O&M for SGVTF Operations	N/A	N/A
SGVTF Agency Level		Level 2B

Item	Existing Conditions/Operations	Planned Conditions/Operations
Possible Early Deployment Opportunities	N/A	<ul style="list-style-type: none"><li>• Replace old controller cabinets with Type 332 to better support TCS functionality</li><li>• Initiate timing plan project on Montebello Blvd</li><li>• Modify/add vehicle detection (as per I-5/Telegraph Rd TF):<ul style="list-style-type: none"><li>• Slauson Ave @ Telegraph Rd</li><li>• Telegraph Rd @ Greenwood Ave</li></ul></li></ul>

## 6.17 MONTEBELLO BUS

Interview Conducted: November 6<sup>th</sup>, 2003

Primary Agency Contact: Allan Pollock (Montebello Bus)

Interview Attendees (Phone): Allan Pollock (Montebello Bus)  
Manny Thomas (Montebello Bus)  
Chuck Dankocsik (TransCore)  
Jack Schneider (TransCore)

### Interview Summary:

Item	Conditions/Operations
General Service Information	<ul style="list-style-type: none"> <li>• About 11 million riders per year</li> <li>• Major Routes/Corridors: Whittier and Beverly Blvds (E/W), Garfield Ave and Montebello Blvd (N/S)</li> <li>• Major Destinations: Downtown LA, Gold Line Station (Pasadena), Whittier, ELAC</li> <li>• Boundary Areas: San Marino/Pasadena, Whittier, Montebello, Alhambra, Downtown LA</li> <li>• 54 busses/day (at peak hours)</li> <li>• 235 employees</li> <li>• Schedules/routes are re-evaluated 3 times/year</li> </ul>
Service Issues	<ul style="list-style-type: none"> <li>• Routes: Beverly Blvd (to Downtown), Whittier Blvd, Washington Blvd (mostly Downtown), Garfield Ave (to Gateway Cities) – PM peak hours worst; 20-30 minute delays per line</li> <li>• Intersections: Garfield Ave and Whittier Blvd, Beverly Blvd, and Washington Blvd; I-10/Bandini; San Gabriel Blvd/I-10</li> <li>• Extra (unscheduled) service to Downtown and performing analyses on other routes to determine ways to mitigate delays</li> <li>• No process in place to notify Agency in case of planned construction/closures outside of the City of Montebello (also notified re: filming in the City of LA) <b>(MEDIUM)</b></li> </ul>
ITS/Systems	<ul style="list-style-type: none"> <li>• Website shows schedules and allows trip planning for fixed routes for Montebello Bus and has links to MTA for regional trip planning and schedules</li> <li>• Route data is sent to the MTA (files sent electronically, but no automation) <b>(MEDIUM)</b></li> <li>• Currently doing analysis on implementing AVL (potential implementation in 2005) <b>(HIGH)</b></li> <li>• Held informal discussions with Cities regarding signal priority (cross-jurisdictional issues) <b>(HIGH)</b></li> <li>• Considering Kiosk and transportation pass vending at new transit plaza (at Montebello and Whittier Blvds) <b>(LOW)</b></li> <li>• Use ATMS primarily for determining need for route deviations <b>(MEDIUM)</b></li> </ul>
SGVTF Agency Level	Level 1 (view only)

<b>Item</b>	<b>Conditions/Operations</b>
Possible Early Deployment Opportunities	<ul style="list-style-type: none"><li>• Improve road construction/closure notification process</li><li>• Ticketing kiosk pilot</li></ul>

## 6.18 CITY OF MONTEREY PARK

Interview Conducted: November 6<sup>th</sup>, 2003

Primary Agency Contact: Ronald Merry (Dir. of Public Works,  
City of Monterey Park)  
(626) 307-1323

Interview Attendees: Ronald Merry (City of Monterey Park)  
Stephen Hilton (City Traffic Consultant)  
Elias Saykali (Asst. City Eng., Monterey Park)  
Inez Yeung (LACO DPW)  
Jack Schneider (TransCore)  
George Hatstrup (MMA)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	No major traffic generators.	Same as Existing
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Atlantic Blvd, Garfield Ave and Garvey Ave</li> <li>Atlantic Blvd at Hellman Ave, Emerson Ave, Garvey Ave, Floral Dr, Riggin St, and First St</li> <li>Garfield at Hellman Ave, Emerson Ave, Garvey Ave, and Pomona Blvd</li> <li>Garvey Ave at Corporate Center, Alhambra Ave, and New Ave</li> <li>Pomona Blvd at Wilcox Ave</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	N/A
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>Would like to operate TCS from 7:30 AM to 5:30 PM. <b>(HIGH)</b></li> <li>Co-location with law enforcement and maintenance <b>(LOW)</b></li> <li>Would use for signal monitoring/control, incident management, event management, transit coordination, emergency operations, law enforcement, and ITS device management/control. <b>(HIGH)</b></li> </ul>
# of Signalized Intersections	65	65 <b>(HIGH)</b>

Item	Existing Conditions	Planned Operations
Signal Control	Fixed pattern/Time-of-Day	TCS/Same as Existing <b>(HIGH)</b>
Primary Signal Controller	Econolite 8200	4 non-primary corridor intersections to be upgraded to Econolite 8200's <b>(HIGH)</b>
Roadside Equipment Maintenance	Computer Service Company	Contract to be re-bid in July 2004
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc               <ul style="list-style-type: none"> <li>• Garfield Ave (TBC)</li> <li>• Atlantic Blvd (TBC)</li> </ul> </li> <li>• Controllers with WWV are accurate</li> </ul>	N/A
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• Caltrans (4)</li> <li>• LACO DPW (6)</li> <li>• Alhambra (2)</li> <li>• Note: Costs for signals operated by others tend to be higher</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	<ul style="list-style-type: none"> <li>• Inductive Loops (63 intersections)</li> <li>• VIDs (2 intersections)</li> <li>• No budget to migrate</li> </ul>	All new intersections to have VIDs. <b>(HIGH)</b>
CCTV Capabilities	None	N/A
Primary Communications	<ul style="list-style-type: none"> <li>• All copper wire</li> <li>• WWV radio signal for controllers.</li> </ul>	Same as Existing <b>(HIGH)</b>
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	Coordination by LA County coordination projects.	<ul style="list-style-type: none"> <li>• Would participate and is interested in coordinating timing plans with other jurisdiction. <b>(HIGH)</b></li> <li>• Would share all relevant TCS information with Stakeholders. <b>(HIGH)</b></li> <li>• Would cede control of TCS operations to LACO for emergency operations and off-hours. <b>(HIGH)</b></li> </ul>
Maintenance Budget	\$75k for contractors and \$25k for new traffic equipment.	No increase in funding planned
On-Going O&M for SGVTF Operations	N/A	No
SGVTF Agency Level	N/A	Level 2B

<b>Item</b>	<b>Existing Conditions</b>	<b>Planned Operations</b>
Possible Early Deployment Opportunities	N/A	N/A



## 6.19 CITY OF PASADENA

Interview Conducted: November 5<sup>th</sup>, 2003

Primary Agency Contact: Bahman Janka (Transportation Administrator,  
City of Pasadena)  
(626) 744-4610

Interview Attendees: Bahman Janka (City of Pasadena)  
Norman Baculinao (City of Pasadena)  
Chuck Dankocsik (TransCore)  
David Miller (TransCore)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>• Old Town</li> <li>• Rose Bowl</li> <li>• Post Rose Bowl at Victory Park (Sierra Madre Blvd)</li> <li>• UCLA home games</li> <li>• JPL</li> <li>• Caltech</li> <li>• Various Schools</li> </ul>	<ul style="list-style-type: none"> <li>• Possible NFL Rose Bowl Expansion (<b>MEDIUM</b>)</li> <li>• Civic Center Expansion (<b>HIGH</b>)</li> </ul>
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>• Lake Ave</li> <li>• Orange Grove Blvd</li> <li>• Pasadena Ave</li> <li>• Fair Oaks Ave</li> <li>• Arroyo Pkwy</li> <li>• Del Mar Ave</li> <li>• California Blvd</li> <li>• Washington Blvd</li> <li>• San Gabriel Blvd</li> <li>• Rosemead Blvd</li> </ul>	Same as Existing
Transportation Management Center (TMC)	<ul style="list-style-type: none"> <li>• TMC located at City Hall</li> <li>• 1000 sq.ft.</li> <li>• Satellite location at maintenance yard</li> <li>• Hours of operation are from 7 AM to -5 PM and weekends during special events</li> <li>• Staff size is two (2)</li> </ul>	TMC to be re-designed for June 07 move ( <b>HIGH</b> )

Item	Existing Conditions	Planned Operations
Traffic Control System (TCS)	<ul style="list-style-type: none"> <li>Signal monitoring/control</li> <li>Event management</li> <li>Emergency operations</li> <li>ITS device management/control</li> </ul>	<ul style="list-style-type: none"> <li>Incident management (<b>LOW</b>)</li> <li>Transit coordination (<b>MEDIUM</b>)</li> </ul>
# of Signalized Intersections	308	Same as Existing
Signal Control	Series 2000 & QuicNet IV	Same as Existing ( <b>HIGH</b> )
Primary Signal Controller	170	Same as Existing ( <b>HIGH</b> )
Roadside Equipment Maintenance	City Staff	Same as Existing ( <b>HIGH</b> )
Signal Coordination	<ul style="list-style-type: none"> <li>Grid/Network coordination</li> <li>Crossing arterials coordination</li> </ul>	Same as Existing ( <b>HIGH</b> )
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>16 Caltrans</li> <li>6 LACO</li> <li>2 South Pasadena</li> <li>2 La Canada</li> </ul>	Same as Existing ( <b>HIGH</b> )
Primary Detection Method	<ul style="list-style-type: none"> <li>Loops</li> <li>17 VID</li> <li>4 Microwave</li> </ul>	VID along Fair Oaks Ave ( <b>HIGH</b> )
CCTV Capabilities	<ul style="list-style-type: none"> <li>10 Cameras, 5 monitors</li> <li>Live/Streaming/Still Images</li> </ul>	<ul style="list-style-type: none"> <li>18 cameras along Fair Oaks Ave</li> <li>Replacing all existing CCTV cameras (<b>HIGH</b>)</li> </ul>
Primary Communications	<ul style="list-style-type: none"> <li>Copper city wide</li> <li>Fiber Optic for CCTV</li> </ul>	<ul style="list-style-type: none"> <li>City wide fiber optic backbone planned starting in June '06 (<b>MEDIUM</b>)</li> </ul>
Traveler Information Systems (TIS)	9 CMS (6 fixed/3 mobile)	<ul style="list-style-type: none"> <li>New CMS at Arroyo Parkway and Glenarm St. northbound (<b>HIGH</b>)</li> <li>System planned on Fair Oaks Ave (<b>MEDIUM</b>)</li> </ul>
Agency Coordination & SGVTF Participation	Will participate and share all information	Same as Existing ( <b>HIGH</b> )
Maintenance Budget	\$1,000,000 per year	Same as Existing ( <b>HIGH</b> )
On-Going O&M for SGTVF Operations	Already does	Same as Existing ( <b>HIGH</b> )
SGVTF Agency Level	N/A	Level 3
Potential Early Deployment Opportunities	N/A	Adding adjacent smaller cities to Pasadena TCS system

## 6.20 CITY OF ROSEMEAD

Interview Conducted: November 12<sup>th</sup>, 2003

Primary Agency Contact: Ken Rukavina (Wildan for the City of Rosemead)  
(626) 569-2151

Interview Attendees: Ken Rukavina (Wildan for the City of Rosemead)  
Joanne Itagaki (Wildan for the City of Rosemead)  
Ken Hanson (Wildan for the City of Rosemead)  
Inez Yeung (LACO DPW)  
Jack Schneider (TransCore)  
George Hatstrup (MMA)

### Interview Summary:

Item	Existing Conditions/Operations	Planned Conditions/Operations
Traffic Generators	<ul style="list-style-type: none"> <li>South side: SCE, Countrywide, Panda Express HQ, Montebello Town Center</li> <li>North side: Rosemead Square, Rosemead HS</li> <li>Through traffic on Valley Blvd, Garvey Ave, Rosemead Blvd</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing</li> <li>Wal-Mart (2005)</li> </ul>
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Rosemead Blvd/Valley Blvd</li> <li>Garvey Ave/Walnut Grove</li> <li>Garvey Ave/San Gabriel Blvd</li> <li>Walnut Grove Ave/San Gabriel Blvd</li> <li>Marshall St/Rosemead Blvd</li> <li>Mission Rd/Rosemead Blvd</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing</li> <li>Improved pedestrian crossings <b>(HIGH)</b></li> </ul>
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>City Engineer's office <b>(HIGH)</b></li> <li>Would like satellite facility at Wildan's office (City of Industry) <b>(HIGH)</b></li> <li>7AM to 6PM M-Th</li> </ul>
Traffic Control System (TCS)	N/A	<p>Would like centralized TCS: <b>(HIGH)</b>:</p> <ul style="list-style-type: none"> <li>Monitor/control signals</li> <li>Event management</li> <li>Emergency operations</li> </ul>
# of Signalized Intersections	51	<ul style="list-style-type: none"> <li>Same as Existing <b>(HIGH)</b></li> <li>East Walnut Grove Ave exit on I-10 [Hellman] needs signalization – not planned at this time <b>(MEDIUM)</b></li> </ul>

Item	Existing Conditions/Operations	Planned Conditions/Operations
Signal Control	<ul style="list-style-type: none"> <li>Roadside control per local intersection controller</li> <li>Time-of-Day (TOD)/Fixed patterns</li> </ul>	<ul style="list-style-type: none"> <li>TCS (HIGH)</li> <li>Time-of-Day (TOD)/Fixed patterns (<b>MEDIUM</b>)</li> <li>New pedestrian push buttons (2004) (<b>HIGH</b>)</li> </ul>
Primary Signal Controller	170s running LACO-1 and BiTrans with some Multisonic Type 90s	About 30 old controllers replaced by 170s (2004) ( <b>HIGH</b> )
Roadside Equipment Maintenance	PEEK Traffic	Same as Existing
Signal Coordination	<ul style="list-style-type: none"> <li>LACO DPW Tier 1 synchronization via TBC, WWV, etc: <ul style="list-style-type: none"> <li>Garvey Ave</li> <li>Valley Blvd</li> <li>Del Mar Ave</li> <li>Temple City Blvd</li> <li>San Gabriel Blvd (not LACO)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing, plus (<b>HIGH</b>) <ul style="list-style-type: none"> <li>Mission Rd (in progress)</li> <li>Rosemead Ave (in progress)</li> </ul> </li> </ul>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>Caltrans (10 intersections)</li> <li>LACO (2)</li> <li>Monterey Park (2)</li> <li>Other (2)</li> </ul>	Same as Existing
Primary Detection Method	Inductive loops	Same as Existing
CCTV Capabilities	N/A	<ul style="list-style-type: none"> <li>Would like to use for incident management at major intersections (City Council objections to CCTV usage) (<b>MEDIUM</b>)</li> <li>Would like Red Light Cameras (<b>LOW</b>)</li> </ul>
Primary Communications	Copper interconnect on Walnut Grove Ave between Klingerman and Rush Note: Empty conduit on Valley Blvd (Rosemead to Charlotte)	<ul style="list-style-type: none"> <li>Same as Existing, but would like communications back to "TMC" (<b>HIGH</b>)</li> <li>City will base plans on recommendations from SGVTF project (<b>HIGH</b>)</li> </ul>
Traveler Information Systems (TIS)	N/A	N/A

Item	Existing Conditions/Operations	Planned Conditions/Operations
Agency Coordination & SGVTF Participation	With LACO, Caltrans, & Monterey Park	<ul style="list-style-type: none"> <li>• Would share all relevant TCS information with Stakeholders <b>(HIGH)</b></li> <li>• Would allow LACO to take control of TCS operations <b>(MEDIUM)</b>:               <ul style="list-style-type: none"> <li>• Off-hours</li> <li>• Emergency management</li> </ul> </li> </ul>
Maintenance Budget	\$250,000	<ul style="list-style-type: none"> <li>• Same as Existing</li> <li>• City recognizes that they will most likely need to increase their ITS O&amp;M budget <b>(MEDIUM)</b></li> </ul>
On-Going O&M for SGTVF Operations	N/A	Would recommend some funding for TCS operations, but needs City Council approval <b>(HIGH)</b>
SGVTF Agency Level	N/A	Level 2B
Possible Early Deployment Opportunities	N/A	Replace problematic controllers (frequent repairs, unable to support UPS, etc.)

## 6.21 CITY OF SAN DIMAS

Interview Conducted: November 7<sup>th</sup>, 2003

Primary Agency Contact: Krishna Patel (Dir. of Public Works,  
City of San Dimas)  
(909) 394-6245

Interview Attendees: Krishna Patel (City of San Dimas)  
John Campbell (City of San Dimas)  
Jane White (LACO DPW)  
Jack Schneider (TransCore)  
George Hatstrup (MMA)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Covina Blvd/Terrace Drive Businesses</li> <li>SR 57 and I-210 Freeways (Bypass on Covina Blvd and Arrow Hwy)</li> <li>Arrow Hwy commercial</li> </ul>	Same as Existing plus future Costco.
Main Arterials & Intersections	Arrow Highway, especially at: <ul style="list-style-type: none"> <li>Bonita Ave</li> <li>South SR 57 Freeway</li> <li>Cataract Ave</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	N/A
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>Would like to operate TCS from 8 AM to 5 PM <b>(HIGH)</b></li> <li>Co-location with law enforcement and maintenance <b>(LOW)</b></li> <li>Would use for signal monitoring/control, incident management, event management, and ITS device management/control. <b>(HIGH)</b></li> </ul>
# of Signalized Intersections	33	33
Signal Control	LACO DPW Tier 1 synchronization via TBC, WWV, etc.	TCS/Same as Existing <b>(HIGH)</b>
Primary Signal Controller	All Type 170's (50% upgraded to 170E)	Upgrade 2 to 4 controllers to Type 170E per year <b>(HIGH)</b>

Item	Existing Conditions	Planned Operations
Roadside Equipment Maintenance	Computer Service Company	Same as Existing
Signal Coordination	<ul style="list-style-type: none"> <li>• Time-Based on Foothill Blvd, San Dimas Ave, and sections of Arrow Hwy.</li> <li>• Closed Loop Interconnect on Covina Blvd, Lone Hill Ave, Badillo, and other sections of Arrow Hwy.</li> </ul>	Same as Existing <b>(HIGH)</b>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• Caltrans (8)</li> <li>• LACO DPW (1)</li> <li>• City of La Verne (1)</li> <li>• City of Glendora (1)</li> </ul>	Same as Existing
Primary Detection Method	<ul style="list-style-type: none"> <li>• Inductive Loops (31 intersections)</li> <li>• VIDs &amp; loops (2 intersections)</li> </ul>	No plans to change.
CCTV Capabilities	None	<ul style="list-style-type: none"> <li>• As part of Pomona Valley ITS Project, CCTV's were recommended at Arrow/Bonita and San Dimas/I-210 <b>(HIGH)</b></li> <li>• Would also like to have CCTV's at Lone Hill/Gladstone, Arrow Hwy between Lone Hill and I-210, and Covina/SR-57 <b>(HIGH)</b></li> </ul>
Primary Communications	All 12-pair copper wire, but only using 2 pair.	Depends on PV and SGV ITS Projects.
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	Coordination by LA County coordination projects.	<ul style="list-style-type: none"> <li>• Would participate to enhance traffic observation &amp; management, to monitor system operations for maintenance, and for special event/emergency management needs. <b>(HIGH)</b></li> <li>• Would share phase indication, timing plans, and CCTV images with stakeholders. <b>(HIGH)</b></li> <li>• Would cede control of TCS operations to LACO for: <ul style="list-style-type: none"> <li>• Pre-approved timing plans for Emergency Operations and special events. <b>(HIGH)</b></li> <li>• Off-hours. <b>(MEDIUM)</b></li> <li>• Must take into account local impact of any timing plan implementation. <b>(HIGH)</b></li> </ul> </li> </ul>

Item	Existing Conditions	Planned Operations
Maintenance Budget	\$30 K for personnel, \$10 K for new traffic equipment, and \$20 K for spare parts.	<ul style="list-style-type: none"> <li>• No increase in funding planned <b>(HIGH)</b></li> <li>• City recognizes that they will most likely need to increase their ITS O&amp;M budget <b>(MEDIUM)</b></li> </ul>
On-Going O&M for SGVTF Operations	N/A	No <b>(HIGH)</b>
SGVTF Agency Level	N/A	Level 2B
Potential Early Deployment Opportunities	N/A	Expand upon PVTIS recommendations: <ul style="list-style-type: none"> <li>• <del>Signalize new</del> Connect additional intersections to TCS</li> <li>• <del>Install and implement TCS</del></li> <li>• Implement CCTV at additional intersections (e.g., Lone Hill/210, Covina/57, etc.)</li> </ul>



## 6.22 CITY OF SAN GABRIEL

Interview Conducted: November 5<sup>th</sup>, 2003

Primary Agency Contact: Bruce Mattern (City Engineer, City of San Gabriel)  
(626) 308-2800 Ext. 715

Interview Attendees: Bruce Mattern (City of San Gabriel)  
Ed Sheets (City of San Gabriel)  
Inez Yeung (LACO DPW)  
Chuck Dankocsik (TransCore)  
David Miller (TransCore)

### Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	San Gabriel Valley Medical Center (Santa Anita/Las Tunas)	<ul style="list-style-type: none"> <li>Hilton Hotel (Valley/Marley) (Opening 2004) <b>(MEDIUM)</b></li> <li>Grand Mission (San Gabriel Blvd Development Area) (2007-09) <b>(MEDIUM)</b></li> </ul>
Main Arterials & Intersections	<p><u>Arterials</u></p> <ul style="list-style-type: none"> <li>Las Tunas Dr</li> <li>Valley Blvd</li> <li>San Gabriel Blvd</li> <li>Del Mar Ave</li> <li>Mission Rd</li> </ul> <p><u>Intersections</u></p> <ul style="list-style-type: none"> <li>Las Tunas Dr/San Gabriel Blvd</li> <li>San Gabriel Blvd/Mission Rd</li> <li>San Gabriel Blvd/Valley Blvd</li> <li>Valley Blvd/Del Mar Ave</li> <li>Del Mar Ave/Las Tunas Dr</li> <li>Broadway/Walnut Grove Ave</li> <li>New Ave/Valley Blvd</li> </ul> <p><u>Alameda Corridor East (ACE)</u></p> <ul style="list-style-type: none"> <li>Existing at grade crossings @ Del Mar, Mission/Junipero, San Gabriel, &amp; Ramon/Mission</li> <li>Approx. 20 trains per day (possibly 40 in future)</li> <li>Trains can back up traffic 15 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing</li> <li>Planned grade separation for ACE at four (4) crossings between Ramona and San Gabriel Blvds</li> </ul>

Item	Existing Conditions	Planned Operations
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>• Would like a small W/S area <b>(HIGH)</b></li> <li>• Want location @ City Yard <b>(HIGH)</b></li> </ul>
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>• Would like their own centralized TCS <b>(HIGH)</b></li> <li>• Primary Operations <ul style="list-style-type: none"> <li>• Signal monitoring &amp; control <b>(HIGH)</b></li> <li>• Incident management <b>(HIGH)</b></li> <li>• Event management <b>(HIGH)</b></li> <li>• Control other ITS devices <b>(MEDIUM)</b></li> <li>• Emergency operations <b>(HIGH)</b></li> <li>• Signal pre-emption for fire department <b>(HIGH)</b></li> </ul> </li> </ul>
# of Signalized Intersections	34	Same as Existing
Signal Control	<ul style="list-style-type: none"> <li>• Roadside control per local intersection controller</li> <li>• Time-of-Day (TOD)/Fixed Patterns</li> </ul>	<ul style="list-style-type: none"> <li>• TBD per TCS capabilities <ul style="list-style-type: none"> <li>• Various TOD plans (AM, Middy, PM, FREE) <b>(HIGH)</b></li> <li>• Pre-planned scenarios &amp; special/planned events <b>(HIGH)</b></li> </ul> </li> </ul>
Primary Signal Controller	Type 170s	Type 170s <b>(HIGH)</b>
Roadside Equipment Maintenance	City Staff	City Staff <b>(HIGH)</b>
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc. <ul style="list-style-type: none"> <li>• Valley Blvd</li> <li>• San Gabriel Blvd</li> <li>• Las Tunas Dr</li> <li>• Mission Rd</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• At a minimum, the same corridors as “Existing” <b>(HIGH)</b></li> <li>• TBD per TCS capabilities <b>(MEDIUM)</b></li> </ul>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• Caltrans – 2 ints</li> <li>• LACO – 2 ints</li> <li>• Rosemead – 1 int</li> <li>• Alhambra – 1 int</li> </ul>	Same as Existing <b>(HIGH)</b>

Item	Existing Conditions	Planned Operations
Primary Detection Method	Inductive Loops	<ul style="list-style-type: none"> <li>• Inductive Loops               <ul style="list-style-type: none"> <li>• Need loop upgrades <b>(HIGH)</b></li> </ul> </li> <li>• VIDs               <ul style="list-style-type: none"> <li>• Two (2) VIDs located @ San Gabriel/Scott &amp; Valley/Abbott</li> <li>• Would prefer to go to all VIDs <b>(MEDIUM)</b></li> </ul> </li> </ul>
CCTV Capabilities	N/A	Would like to view other Agencies' CCTV images <b>(HIGH)</b>
Primary Communications	N/A	City will base plans on recommendations from SGVTF project <b>(HIGH)</b>
Traveler Information Systems (TIS)	<ul style="list-style-type: none"> <li>• Electronic Arrow Boards</li> </ul>	<ul style="list-style-type: none"> <li>• Portable CMS <b>(HIGH)</b> &amp; roadway speeds via Internet website <b>(MEDIUM)</b></li> <li>• Mission Festivals (3-4 times per year)</li> <li>• Chinese New Year celebration</li> <li>• Valley Blvd</li> </ul>
Agency Coordination & SGVTF Participation	With Caltrans, LACO, and adjacent Cities (per above)	<ul style="list-style-type: none"> <li>• Would like to control their own TCS <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Hands-on signal monitoring &amp; control <b>(HIGH)</b></li> <li>• Will share all relevant TCS information <b>(HIGH)</b></li> </ul> </li> <li>• Signal timing coordination with other Agencies along corridors <b>(HIGH)</b></li> <li>• Would allow another Agency to take control of TCS operations               <ul style="list-style-type: none"> <li>• Only in an absolute emergency <b>(HIGH)</b></li> <li>• Only when City staff are physically NOT there/available <b>(HIGH)</b></li> </ul> </li> </ul>
Maintenance Budget	\$10-15 K	City recognizes that they will most likely need to increase their ITS O&M budget <b>(MEDIUM)</b>
On-Going O&M for SGTVF Operations	N/A	<ul style="list-style-type: none"> <li>• Traffic Engineering has very low funding (not enough money to replace loops) <b>(HIGH)</b></li> <li>• Staff would like a TCS but need City approval before committing O&amp;M resources/funds <b>(HIGH)</b></li> </ul>

<b>Item</b>	<b>Existing Conditions</b>	<b>Planned Operations</b>
SGVTF Agency Level	N/A	Level 2B
Potential Early Deployment Opportunities	N/A	N/A

## 6.23 CITY OF SAN MARINO

Interview Conducted: November 12<sup>th</sup>, 2003

Primary Agency Contact: John Alderson (Public Works Director,  
City of San Marino)  
(626) 943-2648

Interview Attendees: Chuck Richey (City of San Marino)  
Jane White (LACO DPW)  
Chuck Dankocsik (TransCore)  
David Miller (TransCore)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>• Valentine School (1650 Huntington)</li> <li>• Carver School (3100 Huntington)</li> <li>• San Marino High School (2701 Huntington)</li> </ul>	Same as Existing
Main Arterials & Intersections	<p><u>Arterials</u></p> <ul style="list-style-type: none"> <li>• Huntington Dr</li> <li>• Los Robles Ave</li> <li>• Sierra Madre Blvd/San Marino Ave</li> </ul> <p><u>Intersections</u></p> <ul style="list-style-type: none"> <li>• Huntington Dr/Los Robles Ave</li> <li>• Huntington Dr/San Marino Av/Sierra Madre Blvd</li> <li>• Huntington Dr/Oak Knoll Ave</li> <li>• Huntington Dr/Grenada Ave</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>• Would like a small W/S area <b>(LOW)</b></li> <li>• W/S Locations               <ul style="list-style-type: none"> <li>• City Engineer's Office <b>(MEDIUM)</b></li> <li>• Police Dept. <b>(LOW)</b></li> </ul> </li> </ul>

Item	Existing Conditions	Planned Operations
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>• Want to be “Agency B” on another Agency’s TCS <b>(HIGH)</b></li> <li>• Primary Operations               <ul style="list-style-type: none"> <li>• Signal monitoring &amp; control <b>(LOW)</b></li> <li>• Incident management <b>(LOW)</b></li> <li>• Event management <b>(LOW)</b></li> <li>• Control other ITS devices <b>(LOW)</b></li> <li>• Would like system status reports re: signal &amp; communications equipment on a daily basis to focus PEEK’s O&amp;M activities <b>(HIGH)</b></li> </ul> </li> </ul>
# of Signalized Intersections	18	Same as Existing <b>(HIGH)</b>
Signal Control	<ul style="list-style-type: none"> <li>• Roadside control per local intersection controller</li> <li>• Time-of-Day (TOD)/Fixed Patterns</li> </ul>	<ul style="list-style-type: none"> <li>• TBD per TCS capabilities               <ul style="list-style-type: none"> <li>• Various TOD plans (AM, Midday, PM, FREE) <b>(HIGH)</b></li> </ul> </li> <li>• Emergency vehicle preemption capabilities along Los Robles <b>(HIGH)</b></li> </ul>
Primary Signal Controller	Type 170s	<ul style="list-style-type: none"> <li>• Type 170s <b>(HIGH)</b></li> <li>• Would like same controllers everywhere for consistency/ease-of-use <b>(HIGH)</b></li> </ul>
Roadside Equipment Maintenance	PEEK Traffic	PEEK Traffic <b>(HIGH)</b>
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc               <ul style="list-style-type: none"> <li>• Huntington Dr</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• At a minimum, the same corridors as “Existing” <b>(HIGH)</b></li> <li>• TBD per TCS capabilities <b>(MEDIUM)</b></li> </ul>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• LACO – 4 ints</li> <li>• Alhambra – 1 int</li> <li>• Pasadena – 1 int</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	Inductive Loops	Inductive Loops <b>(HIGH)</b>
CCTV Capabilities	N/A	<ul style="list-style-type: none"> <li>• Huntington/San Marino <b>(HIGH)</b></li> <li>• Los Robles/Monterey <b>(HIGH)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Primary Communications	N/A	<ul style="list-style-type: none"> <li>• Prefer land line communications <b>(HIGH)</b></li> <li>• Open to wireless communications <b>(MEDIUM)</b></li> <li>• City will base plans on recommendations from SGVTF project <b>(HIGH)</b></li> </ul>
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	With LACO, Alhambra, & Pasadena (per above)	<ul style="list-style-type: none"> <li>• Would share all relevant TCS information with other Agencies <b>(HIGH)</b></li> <li>• Will cooperate and/or coordinate signal timings as City politics and Traffic Commission policies allow <b>(LOW)</b></li> <li>• Potential to develop pre-approved timing plans/scenarios w/ Traffic Commission involvement <b>(MEDIUM)</b></li> </ul>
Maintenance Budget	\$78.4 K	City recognizes that they will most likely need to increase their O&M budget <b>(MEDIUM)</b>
On-Going O&M for SGVTF Operations	N/A	<ul style="list-style-type: none"> <li>• City is willing to devote funding to operate a TCS <b>(MEDIUM)</b></li> <li>• City Engineer is willing to learn how to operate a TCS w/ provided training <b>(MEDIUM)</b>, but</li> <li>• City wants another Agency to operate their signals <b>(HIGH)</b></li> </ul>
SGVTF Agency Level	N/A	Level 1
Potential Early Deployment Opportunities	N/A	N/A

## 6.24 CITY OF SOUTH EL MONTE

Interview Conducted: November 12<sup>th</sup>, 2003

Primary Agency Contact: George Envall (Traffic Engineer,  
City of South El Monte)  
(626) 570-5067

Interview Attendees: George Envall (City of South El Monte)  
Fernando Villaluna (LACO DPW)  
Jack Schneider (TransCore)  
George Hatstrup (MMA)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>I-605 Freeway</li> <li>Through traffic on Peck Rd, Santa Anita Rd, and Garvey Ave</li> </ul>	<ul style="list-style-type: none"> <li>Same as Existing</li> <li>New shopping center to be built at Santa Anita/Merced</li> </ul>
Main Arterials & Intersections	<ul style="list-style-type: none"> <li>Santa Anita Rd</li> <li>Peck Rd</li> <li>Rosemead Blvd</li> <li>Garvey Ave (during AM and PM peaks)</li> <li>Rosemead Blvd/Garvey Ave</li> <li>Peck Rd/Durfee Ave</li> </ul>	Same as Existing <b>(HIGH)</b>
Transportation Management Center (TMC)	N/A	N/A
Traffic Control System (TCS)	N/A	No real need. Might like to monitor two intersections (Peck/Durfee and Rosemead/Garvey)
# of Signalized Intersections	22	22
Signal Control	Fixed Pattern/Time-of-Day	Same as Existing <b>(HIGH)</b>
Primary Signal Controller	Type 170's	Same as Existing <b>(HIGH)</b>
Roadside Equipment Maintenance	Signal Maintenance, Inc.	Same as Existing <b>(HIGH)</b>



Item	Existing Conditions	Planned Operations
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc.:</li> <li>• Peck Rd</li> <li>• Santa Anita Ave (through South El Monte)</li> <li>• Garvey Ave (from Lee to Protero Aves)</li> </ul>	Same as Existing <b>(HIGH)</b>
Intersection Control by Other Agencies	Caltrans (5)	Same as Existing <b>(HIGH)</b>
Primary Detection Method	Inductive Loops	No plans to change. <b>(HIGH)</b>
CCTV Capabilities	None	Would like CCTV at Rosemead/Garvey and Durfee/Peck <b>(MEDIUM)</b>
Primary Communications	Copper wire interconnect in field.	Same as Existing <b>(HIGH)</b>
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	Coordination by LA County coordination projects.	<ul style="list-style-type: none"> <li>• Little need to make changes at present <b>(HIGH)</b></li> <li>• No money to participate <b>(HIGH)</b></li> <li>• Would particularly like to coordinate with Rosemead, El Monte, and Caltrans <b>(HIGH)</b></li> </ul>
Maintenance Budget	\$52k for contractors	No increase in funding planned <b>(HIGH)</b>
On-Going O&M for SGVTF Operations	N/A	No money available <b>(HIGH)</b>
SGVTF Agency Level	N/A	Level 2A
Potential Early Deployment Opportunities	N/A	N/A

## 6.25 CITY OF SOUTH PASADENA

Interview Conducted: November 5<sup>th</sup>, 2003

Primary Agency Contact: Albert Carbon (Director of Public Works,  
City of South Pasadena)  
(626) 403-7242

Interview Attendees: Albert Carbon (City of South Pasadena)  
Steve Moronez (City of South Pasadena)  
Fernando Villaluna (LACO DPW)  
Chuck Dankocsik (TransCore)  
David Miller (TransCore)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>• Commuter Traffic               <ul style="list-style-type: none"> <li>• From Pasadena to LA</li> <li>• From San Marino to LA</li> </ul> </li> <li>• Schools</li> <li>• Downtown Area</li> </ul>	Future Gold Line Park n' Ride (Mission/Meridian, 142 spaces)
Main Arterials & Intersections	<p><u>Corridors</u></p> <ul style="list-style-type: none"> <li>• Mission St</li> <li>• Orange Grove Blvd</li> <li>• Fair Oaks Ave</li> <li>• Huntington Dr</li> </ul> <p><u>Intersections</u></p> <ul style="list-style-type: none"> <li>• Fair Oaks Ave/Huntington Dr</li> <li>• Huntington Dr/Fremont Ave</li> <li>• Fair Oaks Ave/CA SR 110 Fwy (State &amp; Grevelia)</li> <li>• Fair Oaks Ave/Mission St</li> <li>• Mission St/Meridian Ave</li> <li>• Fremont Ave/Mission St</li> <li>• Fremont Ave/Monterey Rd</li> <li>• Fremont Ave/Columbia St</li> <li>• Monterey Rd/Pasadena Ave @ CA SR 110 Fwy interchange</li> </ul>	<ul style="list-style-type: none"> <li>• New Signalized Intersections <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• CA SR 110 Fwy/Orange Grove Blvd</li> <li>• Orange Grove Blvd/Monterey Rd</li> <li>• Garfield Ave/Monterey Rd</li> </ul> </li> <li>• CA SR 110 Fwy/Fair Oaks Ave interchange will be re-configured <b>(HIGH)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>• Would like a small W/S area <b>(HIGH)</b></li> <li>• Want location @ Public Works Department <b>(HIGH)</b></li> <li>• Would like TMC co-location               <ul style="list-style-type: none"> <li>• Police Dept. <b>(MEDIUM)</b></li> <li>• Maintenance <b>(MEDIUM)</b></li> </ul> </li> </ul>
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>• Would like their own centralized TCS <b>(HIGH)</b></li> <li>• Primary Operations               <ul style="list-style-type: none"> <li>• Signal monitoring &amp; control <b>(HIGH)</b></li> <li>• Incident management <b>(MEDIUM)</b></li> <li>• Event management <b>(LOW)</b></li> </ul> </li> </ul>
# of Signalized Intersections	36	Same as Existing
Signal Control	<ul style="list-style-type: none"> <li>• Roadside control per local intersection controller</li> <li>• Time-of-day/Fixed Patterns</li> <li>• Gold Line Operations               <ul style="list-style-type: none"> <li>• Adaptive</li> <li>• Traffic Responsive</li> <li>• LRT Priority</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• TBD per TCS capabilities               <ul style="list-style-type: none"> <li>• Various TOD plans (AM, Midday, PM, FREE) <b>(HIGH)</b></li> <li>• Adaptive <b>(LOW)</b></li> <li>• Traffic Responsive <b>(MEDIUM)</b></li> <li>• LRT Priority <b>(HIGH)</b></li> </ul> </li> </ul>
Primary Signal Controller	<ul style="list-style-type: none"> <li>• Type 170s               <ul style="list-style-type: none"> <li>• Most City ints</li> <li>• TSSP WWV along Fair Oaks Ave, Huntington Dr, &amp; Fremont Ave</li> </ul> </li> <li>• NEMA 2000 (5)               <ul style="list-style-type: none"> <li>• Monterey Rd @ Diamond Ave, Meridian Ave, Via Del Rey and Indiana Ave</li> <li>• Mission Rd @ Grand Ave</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Type 170s <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• City direction</li> <li>• Upgrades on Monterey Rd (4 ints)</li> <li>• Upgrades on Mission St (2 ints)</li> </ul> </li> <li>• Type 2070s <b>(MEDIUM)</b> <ul style="list-style-type: none"> <li>• As part of Fair Oaks Ave/I-710 Mitigation project</li> </ul> </li> </ul>
Roadside Equipment Maintenance	<ul style="list-style-type: none"> <li>• PEEK Traffic</li> <li>• City Staff               <ul style="list-style-type: none"> <li>• Minor repairs/adjustments</li> </ul> </li> </ul>	Same as Existing <b>(HIGH)</b>

Item	Existing Conditions	Planned Operations
Signal Coordination	<ul style="list-style-type: none"> <li>LACO DPW Tier 1 synchronization via TBC, WWV, etc:               <ul style="list-style-type: none"> <li>Fremont Ave (Alhambra Ave to Mission Rd)</li> <li>Fair Oaks Ave (Huntington Dr to Columbia St)</li> <li>Huntington Dr (Fremont Ave to Fletcher Ave)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>At a minimum, the same corridors as “Existing” <b>(HIGH)</b></li> <li>TBD per TCS capabilities <b>(MEDIUM)</b></li> <li>Looking for signal &amp; controller upgrades&amp; signal coordination on Monterey Rd/Mission St so City can interface with LA and Pasadena <b>(MEDIUM)</b></li> </ul>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>Caltrans – 2 ints</li> <li>LACO – 1 int</li> <li>Alhambra – 2 ints</li> <li>Pasadena – 2 ints</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	Inductive Loops	<ul style="list-style-type: none"> <li>Inductive Loops <b>(HIGH)</b></li> <li>VIDs on Fair Oaks Ave as part of I-710 Mitigation Project (2004-05) <b>(MEDIUM)</b></li> <li>City wants to improve detection capabilities system-wide <b>(HIGH)</b></li> </ul>
CCTV Capabilities	N/A	N/A <b>(MEDIUM)</b>
Primary Communications	N/A	<ul style="list-style-type: none"> <li>Fiber-optic communications along Fair Oaks Ave from Columbia St to City limits <b>(HIGH)</b> <ul style="list-style-type: none"> <li>Part of I-710/Fair Oaks Ave Project</li> </ul> </li> <li>City will base plans on recommendations from SGVTF project <b>(HIGH)</b></li> </ul>
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	With LACO, Caltrans, and adjacent Cities (per above)	<ul style="list-style-type: none"> <li>Would like to control their own TCS <b>(HIGH)</b> <ul style="list-style-type: none"> <li>Hands-on signal monitoring &amp; control <b>(HIGH)</b></li> <li>Will share all relevant TCS information <b>(HIGH)</b></li> </ul> </li> <li>Signal timing coordination with other Agencies along corridors (Pasadena, Los Angeles, Alhambra, San Marino, &amp; LACO DPW) <b>(HIGH)</b></li> <li>Per MOUs, would allow another Agency to take control of TCS operations <b>(LOW)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Maintenance Budget	\$103.5 K	City recognizes that they will most likely need to increase their ITS O&M budget ( <b>MEDIUM</b> )
On-Going O&M for SGTVF Operations	N/A	<ul style="list-style-type: none"> <li>City may be willing to devote funds to operating a TCS (<b>MEDIUM</b>)</li> </ul>
SGVTF Agency Level	N/A	Level 2B
Potential Early Deployment Opportunities	N/A	<ul style="list-style-type: none"> <li>Install fiber-optic communications from Fair Oaks Ave along Huntington Dr &amp; Fremont Ave to LACO DPW TMC</li> <li>Fiber-optic communications along Fair Oaks Ave from Columbia St to City limits (Planned in South Pasadena)</li> </ul>

## 6.26 CITY OF TEMPLE CITY

Interview Conducted: November 7<sup>th</sup>, 2003

Primary Agency Contact: Janice Stroud (Director of Public Services,  
City of Temple City)  
(626) 285-2171

Interview Attendees: Janice Stroud (City of Temple City)  
Patrick Lang (TransTech – City Traffic Engineer)  
Inez Yeung (LACO PDW)  
Chuck Dankocsik (TransCore)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Commuter Traffic</li> <li>Downtown</li> <li>Las Tunas Retail</li> </ul>	<ul style="list-style-type: none"> <li>Potential retail development @ Rosemead Blvd/Las Tunas Dr</li> <li>Potential parcel for development on Temple City Blvd</li> </ul>
Main Arterials & Intersections	<p><u>Corridors</u></p> <ul style="list-style-type: none"> <li>Las Tunas Dr</li> <li>Rosemead Blvd</li> <li>Temple City Blvd</li> <li>Baldwin Ave</li> <li></li> </ul> <p><u>Intersections</u></p> <ul style="list-style-type: none"> <li>Rosemead Blvd/Las Tunas Dr</li> </ul>	Same as Existing
Transportation Management Center (TMC)	N/A	<ul style="list-style-type: none"> <li>Would like a small W/S area <b>(MEDIUM)</b></li> <li>W/S would be located in a corner office <b>(MEDIUM)</b></li> </ul>
Traffic Control System (TCS)	N/A	<ul style="list-style-type: none"> <li>Want to be "Agency B" on another Agency's TCS <b>(HIGH)</b></li> <li>Primary Operations <ul style="list-style-type: none"> <li>Monitoring capabilities only <b>(HIGH)</b></li> <li>Possibly make minor timing changes <b>(MEDIUM)</b></li> <li>Perhaps develop pre-planned scenarios for City events <b>(MEDIUM)</b></li> <li>Transit coordination <b>(LOW)</b></li> <li>Control other ITS devices <b>(MEDIUM)</b></li> </ul> </li> </ul>

Item	Existing Conditions	Planned Operations
# of Signalized Intersections	28	Same as Existing
Signal Control	<ul style="list-style-type: none"> <li>• Roadside control per local intersection controller</li> <li>• Time-of-day/Fixed Patterns               <ul style="list-style-type: none"> <li>• AM, Midday, PM, FREE</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• TBD per TCS capabilities               <ul style="list-style-type: none"> <li>• Various TOD plans (AM, Midday, PM, FREE) <b>(HIGH)</b></li> <li>• Pre-planned, special event, &amp; planned event scenarios <b>(MEDIUM)</b></li> <li>• Possibly adaptive &amp; traffic responsive <b>(LOW)</b></li> </ul> </li> <li>• Willing to work with MTA re: transit priority (depending on funding) <b>(MEDIUM)</b></li> </ul>
Primary Signal Controller	Type 170s	Same as Existing <b>(HIGH)</b>
Roadside Equipment Maintenance	Signal Maintenance (PEEK Traffic)	Same as Existing <b>(HIGH)</b>
Signal Coordination	<ul style="list-style-type: none"> <li>• LACO DPW Tier 1 synchronization via TBC, WWV, etc:               <ul style="list-style-type: none"> <li>• Temple City Blvd</li> <li>• Las Tunas Dr</li> <li>• Baldwin Ave</li> </ul> </li> <li>• Fixed TOD Coordination               <ul style="list-style-type: none"> <li>• Lower Azusa Rd</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• At a minimum, the same corridors as “Existing” <b>(HIGH)</b></li> <li>• TBD per TCS capabilities <b>(MEDIUM)</b></li> </ul>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• Caltrans – All of Rosemead Blvd/CA SR 19</li> <li>• Arcadia – 1 int</li> <li>• El Monte 1 int</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	Inductive Loops	<ul style="list-style-type: none"> <li>• Inductive Loops <b>(HIGH)</b></li> <li>• Planned use of VIDs in future along major corridors &amp; intersections (above) <b>(MEDIUM)</b></li> </ul>
CCTV Capabilities	N/A	<ul style="list-style-type: none"> <li>• Planned use in the future along major corridors &amp; intersections (above) <b>(MEDIUM)</b></li> <li>• Would like TCS W/S to be integrated with CCTV <b>(HIGH)</b></li> </ul>

Item	Existing Conditions	Planned Operations
Primary Communications	N/A	<ul style="list-style-type: none"> <li>• Possibly interconnect along Las Tunas (copper/TWP) <b>(MEDIUM)</b></li> <li>• Want communications network to support CCTV <b>(HIGH)</b></li> <li>• Open to wireless communications (but concerned about potential interference issue) <b>(MEDIUM)</b></li> <li>• City will base plans on recommendations from SGVTF project <b>(HIGH)</b></li> </ul>
Traveler Information Systems (TIS)	N/A	N/A <b>(MEDIUM)</b>
Agency Coordination & SGVTF Participation	With Caltrans, Arcadia, and El Monte (per above)	<ul style="list-style-type: none"> <li>• Want to be "Agency B" on another Agency's TCS <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Hands-on signal monitoring &amp; control <b>(LOW)</b></li> <li>• Will share all relevant TCS information <b>(HIGH)</b></li> </ul> </li> <li>• Signal timing coordination with other Agencies along corridors <b>(MEDIUM)</b></li> <li>• Per MOUs, would allow another Agency to take control of TCS operations <b>(HIGH)</b> <ul style="list-style-type: none"> <li>• Emergency operations <b>(HIGH)</b></li> <li>• CCTV only with policies <b>(MEDIUM)</b></li> <li>• Pre-planned scenarios <b>(LOW)</b></li> </ul> </li> </ul>
Maintenance Budget	\$28 K	City recognizes that they will most likely need to increase their O&M budget <b>(MEDIUM)</b>
On-Going O&M for SGTVF Operations	N/A	<ul style="list-style-type: none"> <li>• Would like to possibly participate but concerned from a resource point-of-view (e.g., staff, funding, space, etc.) <b>(HIGH)</b></li> <li>• Funding for TCS dependent on City Council <b>(HIGH)</b></li> <li>• Current Council seems open to considering technology based solutions <b>(MEDIUM)</b></li> </ul>
SGVTF Agency Level	N/A	Level 2A



Item	Existing Conditions	Planned Operations
Potential Early Deployment Opportunities	N/A	<ul style="list-style-type: none"> <li>• Roadway project on Baldwin (January 2004)                             <ul style="list-style-type: none"> <li>• Investigate possibility to install loops, advanced loops, VIDs, etc.</li> <li>• Dependent on funding</li> </ul> </li> <li>• Possibly interconnect along Las Tunas (copper/TWP)</li> </ul>

## 6.27 CITY OF WEST COVINA

Interview Conducted: November 5<sup>th</sup>, 2003

Primary Agency Contact: Shannon Yauchzee (Public Works Director,  
City of West Covina)  
(626) 939-8425

Interview Attendees: Miguel Hernandez (Associate Engineer,  
City of West Covina)  
Inez Yeung (LACO DPW)  
Jack Schneider (TransCore)  
George Hatstrup (MMA)

Interview Summary:

Item	Existing Conditions	Planned Operations
Traffic Generators	<ul style="list-style-type: none"> <li>Eastland Shopping Center/IKEA</li> <li>Westfield Town Center (Shopping)</li> <li>I-10 Freeway</li> <li>DMV</li> </ul>	Same as Existing <b>(HIGH)</b>
Main Arterials & Intersections	<p><u>Arterials:</u></p> <ul style="list-style-type: none"> <li>Azusa Ave</li> <li>Amar Rd</li> <li>Barranca St</li> <li>Sunset Ave</li> </ul> <p><u>Intersections:</u></p> <ul style="list-style-type: none"> <li>Azusa Ave/Amar Rd</li> <li>Amar Rd/Nogales Ave</li> <li>Nogales Ave/Valley Blvd</li> <li>Sunset Ave/Cameron Ave</li> <li>Vincent Ave/Lakes Dr</li> <li>North Garvey Ave/Barranca St</li> </ul>	Same as Existing <b>(HIGH)</b>
Transportation Management Center (TMC)	N/A	N/A
Traffic Control System (TCS)	<ul style="list-style-type: none"> <li>Multisonics VMS 330 Ver. 4, Service Pack 5</li> <li>Implemented 3/1/99</li> <li>63 Intersections connected to central system, but 24 are malfunctioning.</li> </ul>	Would like to improve existing system so that it works better <b>(HIGH)</b>
# of Signalized Intersections	112	Same as Existing

Item	Existing Conditions	Planned Operations
Signal Control	Traffic Responsive	Same as Existing <b>(HIGH)</b>
Primary Signal Controller	<ul style="list-style-type: none"> <li>• 83 Multisonics 820A</li> <li>• Type 170's shared with Caltrans and LACO at 29 intersections</li> </ul>	<ul style="list-style-type: none"> <li>• Same as Existing <b>(HIGH)</b></li> <li>• Econolite on LACO sync'd corridors (as completed) <b>(HIGH)</b></li> </ul>
Roadside Equipment Maintenance	82 signalized intersections are maintained by City staff; others maintained by LACO, Caltrans, or Covina.	Same as Existing <b>(HIGH)</b>
Signal Coordination	Azusa Ave; Pacific Ave; West Covina Pkwy; Valinda; Glendora/Vincent Ave; Sunset Ave; Lark Ellen; Grand Ave; and Amar Rd.	County of LA plans to coordinate following streets with SGV: Azusa, Amar, Sunset, Valinda, and West Covina Pkwy <b>(HIGH)</b>
Intersection Control by Other Agencies	<ul style="list-style-type: none"> <li>• Caltrans (15)</li> <li>• LACO (11)</li> <li>• Covina (4)</li> <li>• Walnut (3) – on Nogales St</li> </ul>	Same as Existing <b>(HIGH)</b>
Primary Detection Method	Inductive Loops	Same as Existing <b>(HIGH)</b>
CCTV Capabilities	None	N/A
Primary Communications	All Copper Wire	Would like to expand system to connect all controllers to TCS <b>(HIGH)</b>
Traveler Information Systems (TIS)	N/A	N/A
Agency Coordination & SGVTF Participation	Coordination by LA County coordination projects.	<ul style="list-style-type: none"> <li>• Supports SGVTF project and would like to coordinate timing plans with other jurisdictions. <b>(HIGH)</b></li> <li>• Would share all relevant TCS information with Stakeholders. <b>(HIGH)</b></li> <li>• Would cede control to LACO for emergency operations. <b>(MEDIUM)</b></li> </ul>
Maintenance Budget	\$62.8k for personnel, \$18k for spare parts, \$100k for new traffic equipment	No increase in funding planned. <b>(HIGH)</b>
On-Going O&M for SGVTF Operations	N/A	Willing to devote some funding to operate & maintain a TCS. <b>(HIGH)</b>
SGVTF Agency Level	N/A	Level 2B
Potential Early Deployment Opportunities	N/A	N/A

## **7. SGVTF – SYSTEM INVENTORY (USING TURBO)**

### **7.1 NATIONAL ITS ARCHITECTURE**

The National ITS Architecture, developed by the USDOT, provides a framework that facilitates the building, implementation, and integration of ITS systems. This is accomplished by providing a process, vocabulary, and a set of standards that are used to plan, define, and integrate ITS systems within individual Agencies as well as between Agencies. It is the support for integration, be it intra- or inter-Agency, where the value of the Architecture is most manifest.

The National ITS Architecture development process is comprised of several components. Initially, the stakeholders and their ITS system inventory are determined. The system inventory elements are then mapped to subsystems and Market Packages (pre-defined packages of services and/or functionality) and a Physical Architecture is developed. The Physical Architecture, colloquially known as a “sausage diagram,” shows how the subsystems in the architecture are interconnected.

The final steps of the Architecture involve the development of a Concept-of-Operations and Organizational Architecture, that describes how the Stakeholder Agencies and/or system inventory elements communicate/connect, and the Architecture Flows to describe what information is passed between them. It is in these steps that the (potential) integration and interoperability between Agencies and/or ITS systems are defined/designed.

The National ITS Architecture can be used for both automated and manual interactivity and also to describe both existing and planned ITS elements and integrations.

### **7.2 TURBO ARCHITECTURE SOFTWARE**

Turbo Architecture (Turbo) is a Microsoft Access-based automation tool, built under the auspices the USDOT, to facilitate the development of the ITS architectures. Turbo provides a systematic and consistent approach to help build ITS Architectures.

Turbo provides data screens/forms to input relevant information and perform requisite mappings for each of the major phases outlined above and takes the user through the process in a step-by-step manner. Turbo also provides a set of tabular reports and diagrams to represent the particular Architecture.

### **7.3 SGVTF SYSTEM INVENTORY (USING TURBO)**

For the SGVTF, Turbo was used to capture Stakeholders and their existing ITS inventory. The TransCore Team began developing the 1<sup>st</sup> step within the SGVTF ITS Architecture by using the just completed SGV ITS Architecture as a starting point, since it already contained ITS information for many of the SGVTF Stakeholder Agencies. The TransCore Team compiled this information in the following manner for “Existing” system elements:

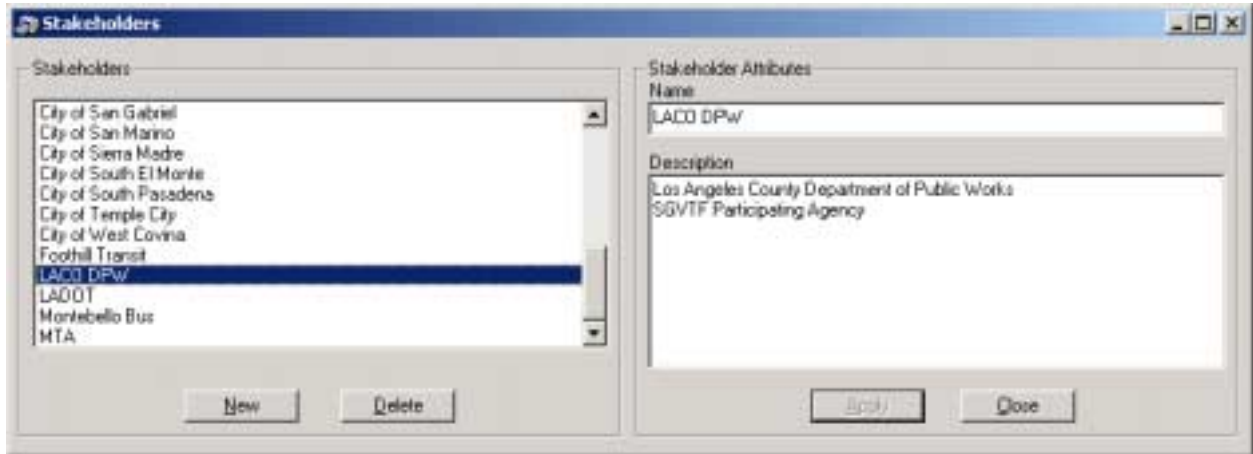
- Updated SGV & SGVTF data for Agencies that participate in both (as necessary)
- Inserted information for the 1<sup>st</sup> time only for those Agencies in the SGVTF (not SGV)

No work was performed using Turbo regarding “Planned” system elements because that information is not yet finalized.

In addition to being a good way to document and maintain the “Existing” system inventory for the SGVTF, the Turbo database should also help facilitate the development of a full Regional ITS Architecture in the future.

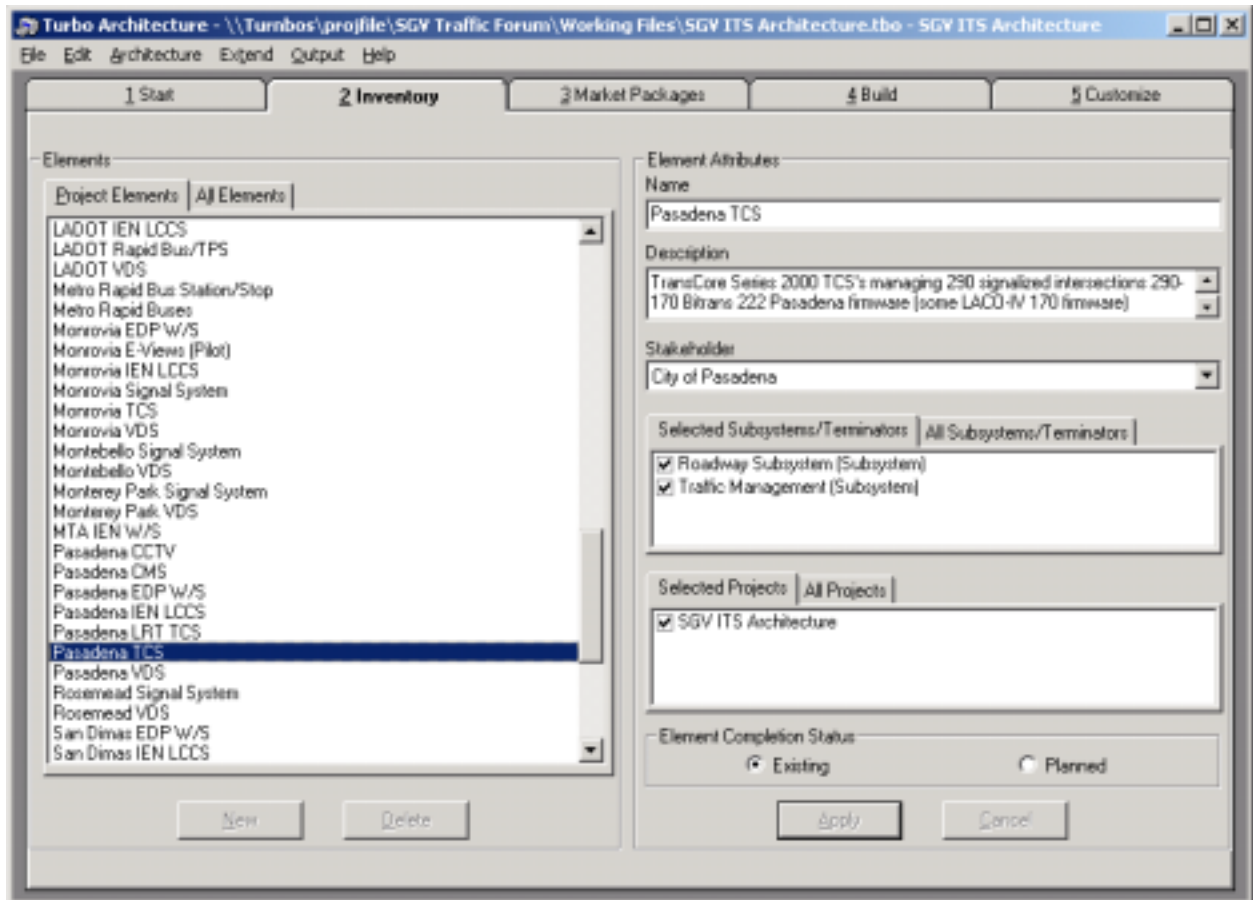
Using Turbo’s Stakeholder form (as shown in Exhibit 7.1), the user can create, edit, or delete Stakeholders from the architecture.

### Exhibit 7.1 – Turbo Architecture Stakeholder Form



Turbo’s system inventory input screen (as shown in Exhibit 7.2) is used to name, describe, assign ownership, and map subsystems to ITS elements in the National ITS Architecture.

### Exhibit 7.2 – Turbo Architecture System Inventory Input Screen



Please refer to Appendix E for Turbo’s outputs regarding the Stakeholder and System Inventory reports. These reports have been modified from the standard Turbo reports to include only those inventory elements that currently exist (the standard Turbo reports include all inventory elements, regardless of its status as “Existing or “Planned”).

## **8. SGVTF – POTENTIAL EARLY DEPLOYMENT OPPORTUNITIES**

### **8.1 EVALUATION CRITERIA**

In order to determine which SGVTF Agencies offer the best Early Deployment Opportunities (EDOs), the following criteria was established:

- Cities with extensive signal system operations (may already have a centralized TCS) that would experience significant operational benefits from having specific ATMS improvements implemented
- SGVTF Agencies that contain congested arterial routes/corridors (especially those that are used to bypass freeway traffic)
- SGVTF Agencies where LA County DPW already operates and/or maintains the signal system on main corridors (via Tier 1 synchronization projects)
- Neighboring Agencies that can demonstrate the benefits of an inter-jurisdictional ATMS
- Opportunity to “piggyback” on existing and/or programmed Agency projects
- SGVTF Agencies that strongly support coordination and integration of ATMS (especially those Agencies that are willing to provide funds for on-going O&M)

### **8.2 POTENTIAL EARLY DEPLOYMENT OPPORTUNITIES (CITY-CENTRIC)**

#### **8.2.1 SGVTF EDOs**

The analysis of the various Agency interviews and other materials led to the development of the following EDOs, which will facilitate the deployment of traffic and incident management for individual SGVTF Agencies.

#### **Alhambra, LACO DPW, Pasadena, & South Pasadena**

- Extend/interconnect the communications infrastructure
  - Install any additional multi-cell conduit needed to facilitate connecting LADOT and the LACO TMC via fiber optic cable utilizing existing conduit installations on Valley Blvd. (to LADOT) & Fremont Ave. (to LACO DPW) in Alhambra
  - Continue the installation of multi-cell conduit along (and connecting to) Fremont Ave. and Fair Oaks Ave. (as needed beyond the I-710 mitigation projects) through South Pasadena and Pasadena facilitating connecting those Cities to Alhambra and LACO DPW
  - Continue the installation of multi-cell conduit along (and connecting to) Valley Blvd. through San Gabriel facilitating connecting San Gabriel to Alhambra and LACO DPW

#### **San Dimas**

- Expand CCTV coverage to additional intersections to those recommended by PVITS.

### 8.2.2 Tier-1 Synchronization Opportunities

During the analysis of the Agency interviews/surveys, several additional LACO Tier-1 Synchronization opportunities were identified. Implementation of these projects will help strengthen/support the LACO's synchronization efforts and, in some cases, also facilitate implementation of the SGVTF ATMS.

#### Covina

- Replace old, mismatched controllers causing timing/synchronization problems (e.g., Barranca & Workman, etc.)
- Signalize 4-way stop intersections in the midst of major signalized arterials

#### Montebello

- Replace old controller cabinets with Type 332 to better support TCS functionality

#### Pasadena

- Adding adjacent smaller Cities to Pasadena TCS system

#### Rosemead

- Replace problematic controllers w/ Type 170s

#### Temple City

- Investigate possibility to install additional system detection (e.g., loops, advanced loops, VIDs, etc.) with roadway project on Baldwin (January 2004)
- Possibly interconnect along Las Tunas (TWP/copper)

### 8.3 POTENTIAL EDOS (CORRIDOR-PERSPECTIVE)

As an alternative to considering EDOS from an individual Agency perspective, it may be more practical to consider EDOS for the SGVTF arterial routes/corridors cross the SGV River and parallel the major east/west freeways – CA SR 60, I-10, and I-210.

**Valley Blvd:** Alhambra – from I-710 to New Ave  
 Rosemead – from New Ave to Strang Ave  
 El Monte – from Rowland Ave to I-605  
 City of Industry – from I-605 to Grand Ave (this may also involve La Puente, West Covina, and Walnut)

**Arrow Hwy:** Irwindale/Baldwin Park – from Peck Rd to Vincent Ave  
 Azusa/Covina – from Vincent Ave to Barranca Ave  
 Covina/Glendora – from Barranca Ave to Valley Center Ave  
 San Dimas – from Valley Center Ave to San Dimas Canyon Rd



- Huntington Dr:** South Pasadena – from Kendall Ave to Garfield Ave  
San Marino – from Garfield Ave to San Gabriel Blvd  
LA County/Arcadia – from San Gabriel Blvd to 5<sup>th</sup> Ave  
Monrovia – from 5<sup>th</sup> Ave to South Mountain Ave  
Duarte – from South Mountain Ave to Encanto Pkwy
- Foothill Blvd:** Azusa – from Irwindale Ave to Citrus Ave  
Glendora – from Citrus Ave to Amelia Ave  
San Dimas – from Amelia Ave to San Dimas Canyon Rd

The EDOs associated with a priority arterial route/corridor would probably involve one or more of the following activities

- TCS implementation
- CCTV installation
- VIDs expansion
- CMS installation
- Communications installation
- Countywide IEN implementation

Corridor-specific EDOs will require each SGVTF Agency to dedicate suitable resources (e.g., staff, O&M funding, etc.) as part of the EDO implementation.