Atlantic Boulevard / I-710 Corridor Advanced Traffic Management System Improvement Project

Gateway Cities Public Works Officers
Traffic Signal Synchronization Subcommittee
September 16, 2004

Agenda

- Review of overall project

- Project status

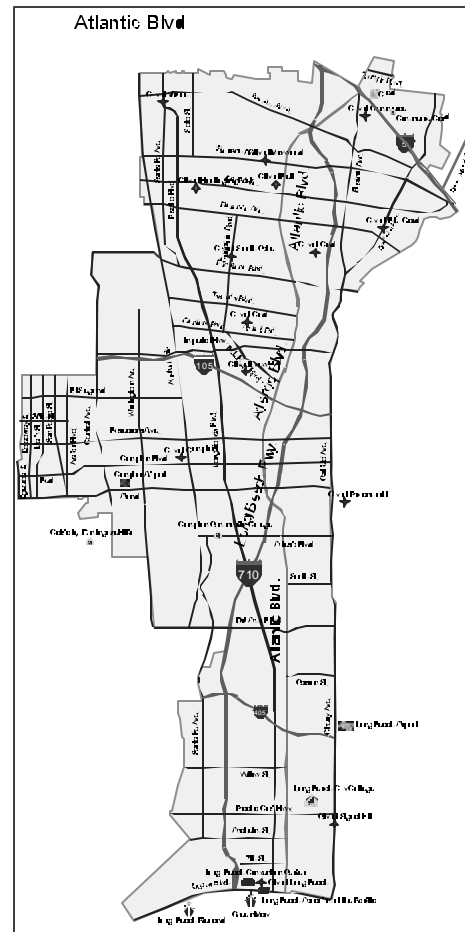- Results of stakeholders' objectives analysis

- Next steps

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Project Area

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Project Objectives

- Provide full access to an ATMS to all agencies in the corridor for monitoring and control of their signals

- Ability to synchronize signals across jurisdictional boundaries

- Allow for exchange of real-time traffic information

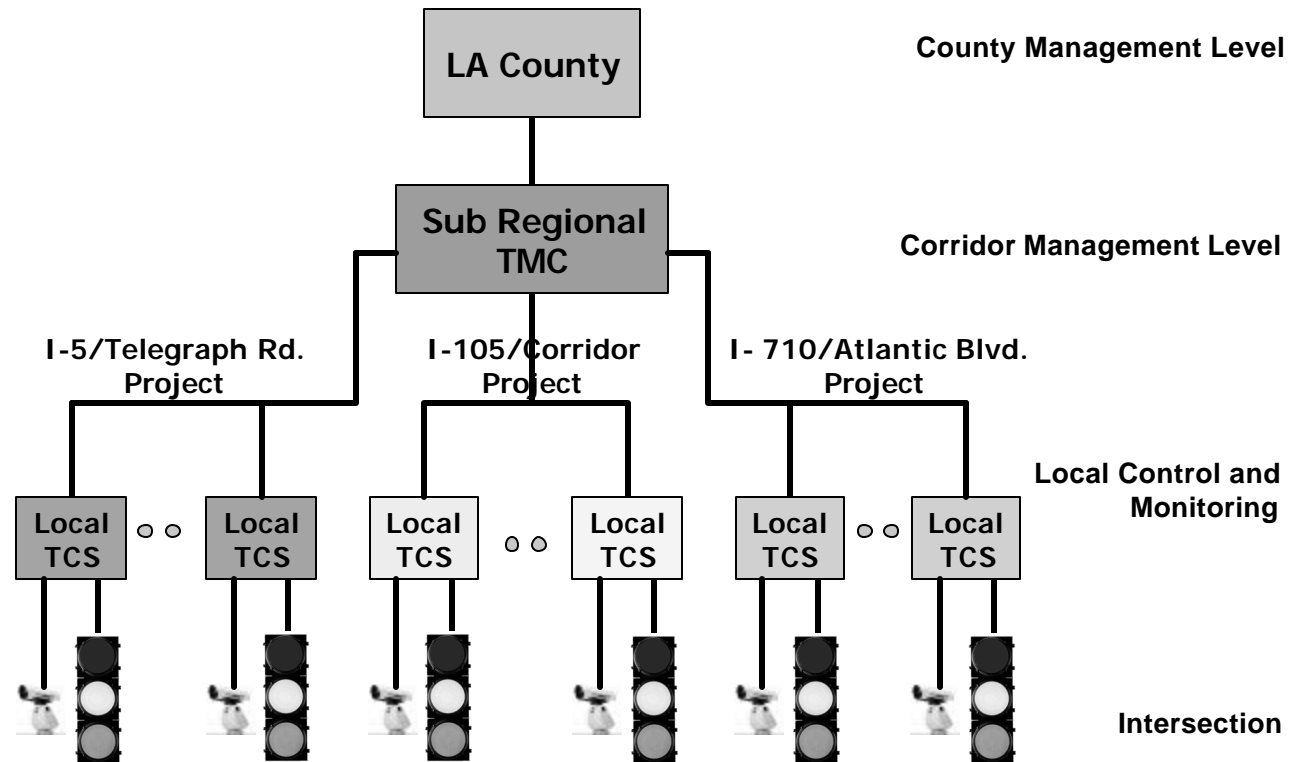Siemens ITS

Project Elements

- ATMS(s) for local signal control and monitoring
  - Traffic control systems
  - System detection
  - Closed circuit television cameras
- Establishment of local control centers at each jurisdiction
- Integration with IEN
- Communications (for both data and video)
  - Field to center (intersections to LCC)
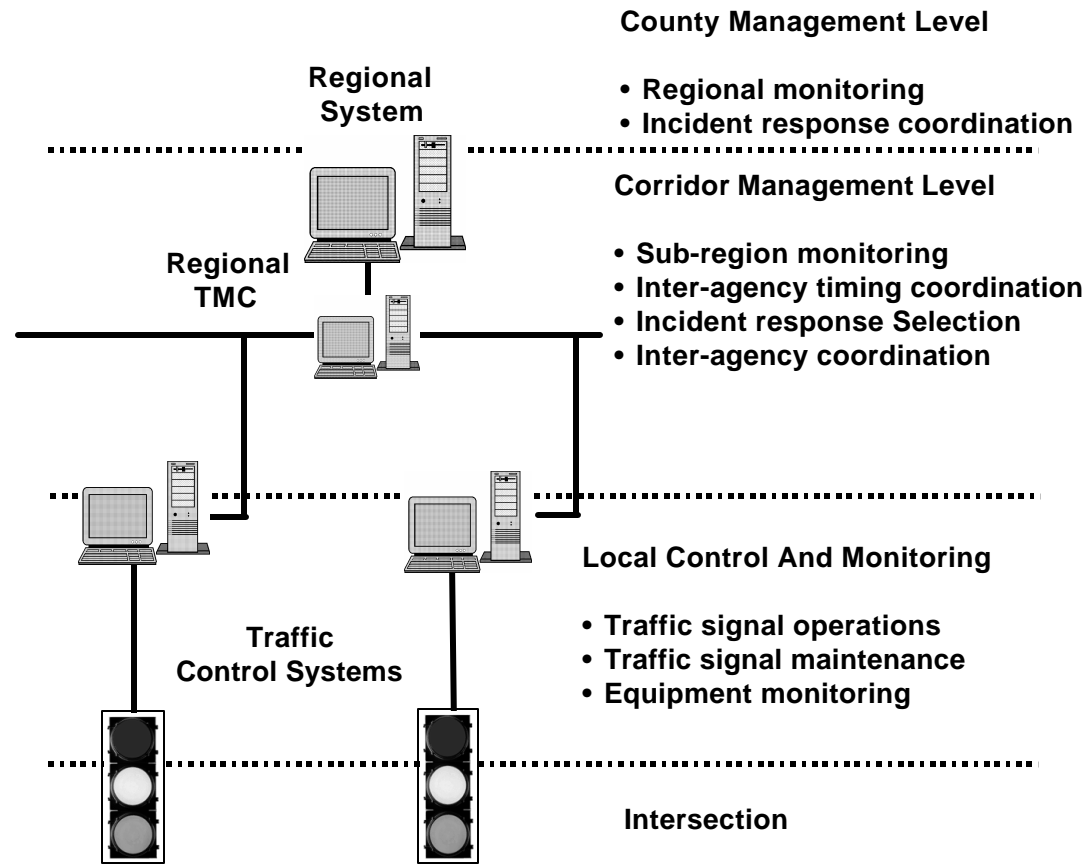 - Center to center (LCC to County TMC)

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Atlantic Boulevard / I-710 Corridor ATMS Project

Relationship With Other Projects

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Project Focus

County Management Level

- **Regional monitoring**
- **Incident response coordination**

Regional System

Corridor Management Level

Regional TMC

- **Sub-region monitoring**
- **Inter-agency timing coordination**
- **Incident response Selection**
- **Inter-agency coordination**

Local Control And Monitoring

Traffic Control Systems

- **Traffic signal operations**
- **Traffic signal maintenance**
- **Equipment monitoring**

Intersection

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Project Status

- Web Page ——————————— In-Progress

- Agency Interviews——————— Complete

- Field Surveys——————————In-Progress

- Operational Objectives————— Report Submitted for Review

- Concept of Operations————— In-Progress

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Stakeholders Objectives Analysis

- Agencies Interviewed
  - Bell
  - Commerce
  - Compton
  - Cudahy
  - Huntington Park
  - Long Beach
  - Lynwood
  - Maywood
  - Paramount
  - South Gate
  - Vernon
  - County

Bell Gardens – To be Interviewed

Signal Hill – Long Beach representing their interests

Caltrans – No routes in the project area, will not be interviewed at this time.

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Agency Analysis
Controllers

- ## Agencies with Type 170 controllers
  - Bell, Commerce, Cudahy, Huntington Park, Long Beach, Lynwood, Maywood, Paramount, County

Want to Continue Using Type 170 Controllers

- ## Agencies with Econolite controllers
  - Compton, South Gate, Vernon

Want to Continue Using Econolite Controllers

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Agency Analysis
Detection

- Most agencies prefer to use loops in general

- Video detection preferred in some instances

- Advanced detection present on TSSP routes

- Cities wish to install more detection for traffic monitoring purposes

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Agency Analysis
Communications

- Little interconnect in the project area except in the cities of Long Beach, and Commerce and along some intersections in the cities of South Gate and Vernon

- Cities open to installing leased lines and wireless media

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Agency Analysis
Signal Operations and Maintenance

- In-house
  - Compton, Huntington Park, Long Beach, Lynwood, South Gate, County

- Contract to PEEK SMI
  - Bell, Commerce, Cudahy, Maywood, Vernon

- Contract to another agency
  - Paramount (to Santa Fe Springs)
  - Signal Hill (to Long Beach)

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Agency Analysis
Traffic Control Systems

- Existing
    - South Gate   ARIES, i2
    - Vernon   ARIES
    - Long Beach   QuicNet IV
- Planned
    - County   KITS
    - Compton   TBD
    - Commerce   Upgrade under I-5
    - Paramount   Client workstation installation under I-105

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Agency Analysis
Traffic Control Systems – Agency Preference

Agency	Local	Host	Client
Bell		X	X
Commerce	X		
Compton		X	
Cudahy			X
Huntington Park	X		
Long Beach	X		
Lynwood	X		
Maywood			X
Paramount			X
South Gate	X		
Vernon	X		
County		X	

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Traffic Control Systems
Preliminary Recommendations

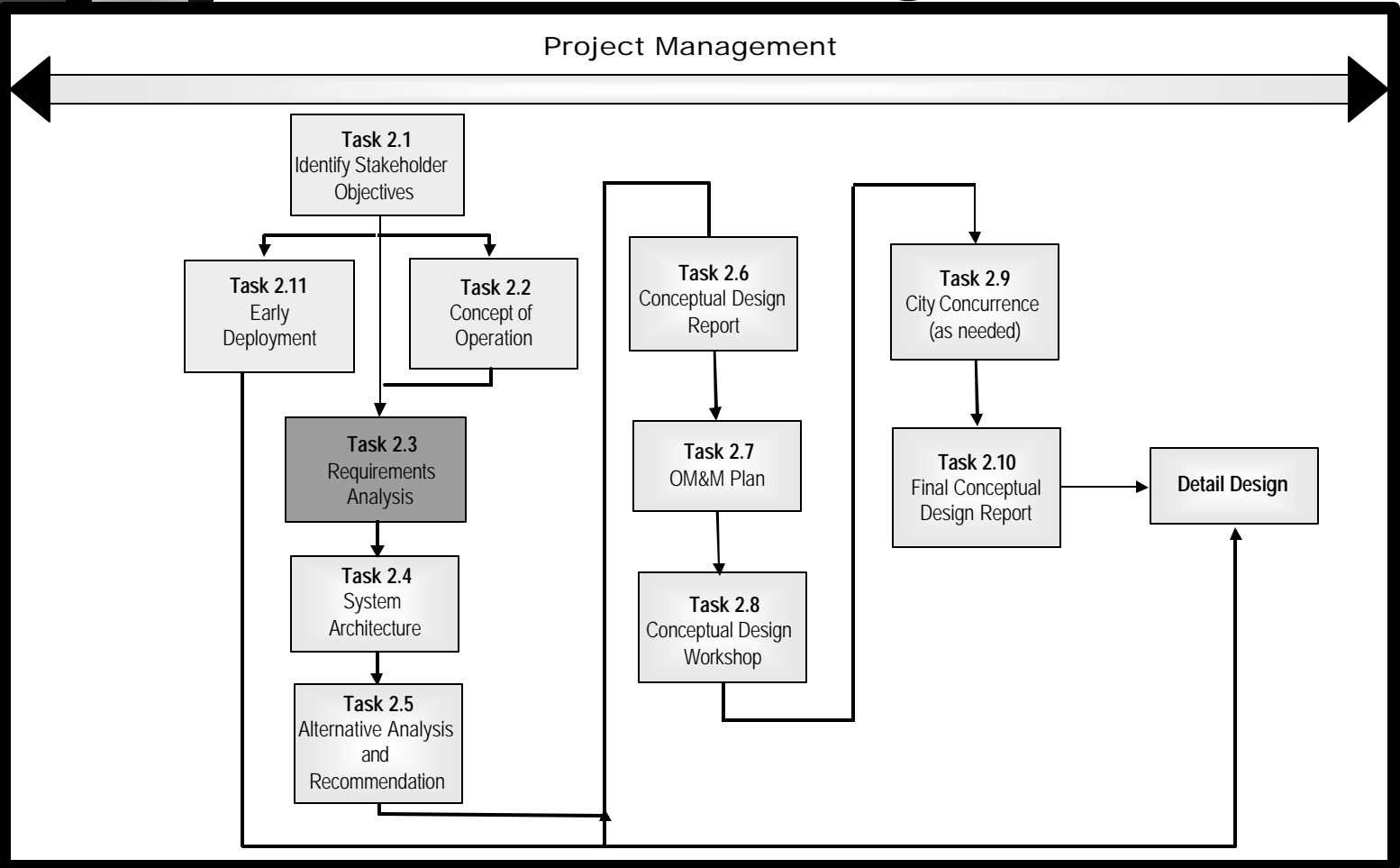| Agency	TCS	Recommendation
Bell	**Client**	**Provide workstation**
Commerce	**Local**	**Connect intersections to QuicNet IV**
Compton	**Local**	**System to be deployed by the City**
Cudahy	**Client**	**Connect intersections to County system**
Huntington Park	**Local**	**Install new system**
Long Beach	**Local**	**No upgrades required**
Lynwood	**Local**	**Install new system**
Maywood	**Client**	**Connect intersections to County system**
Paramount	**Client**	**Connect intersection to SFS system**
South Gate	**Local**	**Connect intersections to i2**
Vernon	**Local**	**Upgrade system**
County	**Host**	**Connect intersections to County system**

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Agency Analysis

- All agencies interested in deploying IEN interface

- All agencies supportive of sharing data with other agencies in the region

- Most agencies want to deploy CCTV cameras for surveillance purposes

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Work Flow Diagram

Project Management

Task 2.1 Identify Stakeholder Objectives

Task 2.11 Early Deployment

Task 2.2 Concept of Operation

Task 2.6 Conceptual Design Report

Task 2.9 City Concurrence (as needed)

Task 2.3 Requirements Analysis

Task 2.7 OM&M Plan

Task 2.10 Final Conceptual Design Report

Detail Design

Task 2.4 System Architecture

Task 2.8 Conceptual Design Workshop

Task 2.5 Alternative Analysis and Recommendation

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Next Steps

- Complete project web site

- Complete and submit system inventory

- Complete and submit concept of operations

- Start work on identifying early deployment projects

- Start work on requirement analysis task

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