

Positive Aspects

1

- **Corridor of national/regional significance**
- **Traffic sensors**
 - ▣ Presence of multiple PeMS stations along freeway mainline
 - ▣ PeMS stations already installed on most on/off ramps
- **Ramp metering**
 - ▣ Ramp meters on almost all interchanges north of I-405
 - ▣ Fully metered freeway-freeway interchange (I-105)
- **Arterial traffic signal control**
 - ▣ Existing Traffic Management Centers in the cities of Southgate and Compton
 - ▣ Efforts under way to implement centralized traffic signal status monitoring within local jurisdictions (expected completion sometime in 2014)
 - ▣ Sensys traffic sensors currently being deployed along a section of Long Beach Boulevard (anticipated completion in summer 2013)



Positive Aspects

2

□ **Transit**

- Corridor is parallel to Metro Blue Line and crossed by Metro Green Line
- Two Metro Rapid bus lines within the corridor, one going to downtown Los Angeles and the other to Pasadena
- Transit signal priority is currently active or available on some arterials within the corridor

□ **Other**

- Significant sections of the I-710 freeway have recently been rehabilitated



Areas of Concern

3

□ Freeway traffic sensing

- Health of PeMS stations along ramps (based on February 2012 data)

□ Freeway congestion

- Congestion on surrounding freeways makes it difficult to develop effective alternate routes
- Truck traffic is currently growing faster than the general traffic and is expected to nearly triple by 2035 → Potential need to change management strategies over time
- Some of the bottlenecks are due to causes that may be difficult to address with traffic management strategies (for instance, congestion along I-710 North in the AM peak)
- Portion of congestion likely attributable to the high frequency of accidents along I-710

□ Ramp metering

- Some ramp meters have been turned off to reduce problems caused by trucks entering the freeway at slow speeds
- Short ramp lengths within the I-710/I-405 interchange not suitable for the implementation of ramp meters



Areas of Concern

4

□ Arterial traffic control

- Limited real-time traffic detection along arterials within the central portion of the corridor
- Not all cities may have the ability to centrally monitor and control traffic signal operations
- Cities in the north of the corridor may not have the necessary resources to support the deployment and operation of an ICM system



□ Rerouting opportunities

- Lack of available capacity at many key intersections, particularly close to the freeway, may create significant difficulty in using the arterials as detour routes
- High density of traffic signals along surrounding arterials (typically 4 to 5 signals per mile) may impose long travel times and reduce their attractiveness
- Motorists may not be willing to travel 2 to 4 miles along congested arterials to reach a light-rail station along the Metro Blue line
- Political difficulty of rerouting truck traffic through residential areas

Areas of Concern

5

□ **Transit**

- Limited parking availability at most light-rail stations along the corridor (particularly along the Blue Line) will limit mode shift opportunities

□ **Uniqueness of corridor**

- The high volume of trucks and high number of accidents involving trucks make I-710 an atypical corridor → Potential difficulty of replicating deployment elsewhere



Remaining Questions

6

- **Accuracy of earlier intersection capacity analysis**
 - 2008/09 data
 - Analysis based on single-day traffic flow counts
 - Changes in signal timing/controller since analysis?
 - Intersection geometrical changes since analysis?



Summary



Item	Rating	Notes
Geometry	Good	Some parallel arterials in close proximity of I-710
Freeway Traffic Detection	Very Good	Sensors on mainline and most ramps
Arterial Traffic Detection	Fair	Significant uncertainty regarding existing traffic detection capabilities along key arterials
Traffic Demand Patterns	Good	Grid-pattern traffic; atypical proportion of trucks
Existing Freeway Control	Good	No existing HOV lanes; ramps metered; only one freeway interchange metered
Existing Arterial Control	Fair	Primarily time-of-day control
Existing Transit Services	Good	Metro Blue Line running parallel to I-710, but at some significant distance on some sections of the corridor
Park-and-ride capabilities	Poor	Few existing facilities exhibit high occupancy rates
ICM Opportunities – Peak Hour	Challenging	High congestion level on freeway; arterials with limited extra capacity at some intersections; incident response needs
ICM Opportunities – Off Peak	Excellent	Incident response needs