Case Studies

1. **RTP with SCS**

   (SB 375 Sustainable Communities Strategy)

2. **Context Sensitive Design**

3. **Corridor System Management Plan**

Smart Mobility FRAMEWORK

Case #1: RTP + SCS

- Coordinate transportation (RTP) and land use planning (SCS) to achieve:
  - acceptable levels of travel accessibility
  - regional economic vitality
  - cost-effective infrastructure investments
  - minimal environmental impacts, induced travel
  - Conformity with AB32 and SB375

Case #1
Comparison of Alternatives

	Alt A: **Trend-Line Land Use and Transportation**	Alt B: **SCS for Transportation and Land Use**
Description	❖ Almost all growth occurs in suburban and rural areas as single uses rather than mixed-use sites ❖ Attempts to add highway capacity and systems management to keep pace with development trend	■ Growth plan takes advantage of existing transportation and opportunity sites for infill, TOD and mixed-use. ■ Tailors transportation plan with multi-modal services, providing accessibility to planned growth areas

Smart Mobility FRAMEWORK

Case #1
Comparison of Alternatives

	Alt A: **Trend-Line Land Use and Transportation**	Alt B: **SCS for Transportation and Land Use**
Advantages	■Follows developer and local government planning practices of recent decades ■Invests in highway capacity to reduce congestion to benefit goods movement and essential personal mobility	■Reduces VMT/capita and GHG as required under AB32, SB375 ■Economic investment in central areas sites with potential benefits to environment, socio-economic equity ■Responds to demographic shifts

Smart Mobility FRAMEWORK

Case #1
Smart Mobility Performance

Smart Mobility Measure	Acceptable Performance?	
	Option A	Option B
Modal Travel-Time Mobility		√
Activity Connectedness		√
Walk, Bike, Transit Mode Share		√
Productivity Lost to Congestion	√	√
ROI Nexus	√	√
VMT and Emissions relative to AB32		√
Land Use Efficiency		√
Percent Checked	*28%*	*100%*

Smart Mobility FRAMEWORK

Case #2: Context Sensitive Design

- Arterial creates barrier and economic disincentive through established community
- Goal to improve safety and convenience for travelers and affected community and sustain community value

FRAMEWORK

Comparison of Alternatives

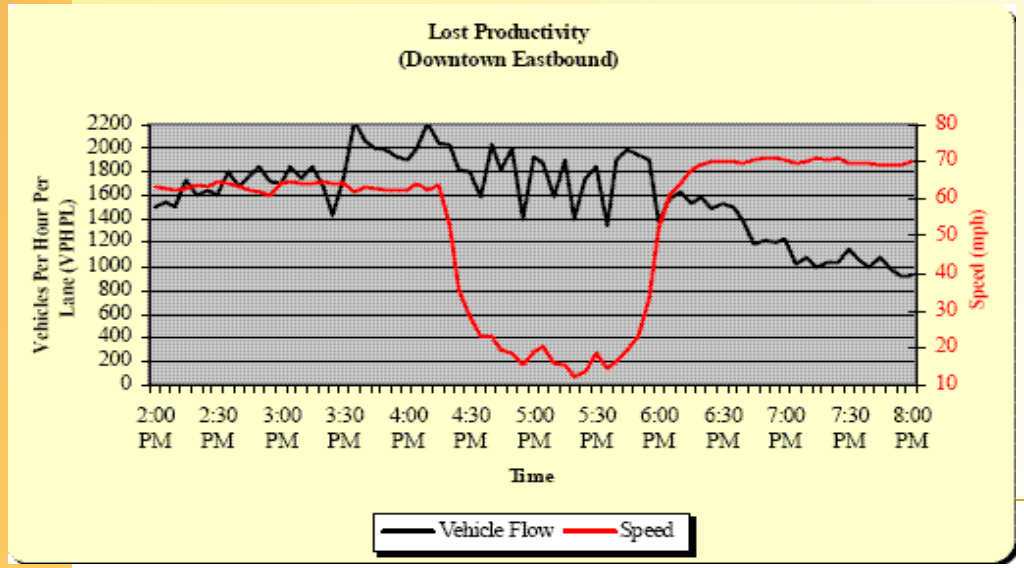
	Alternative A: **Conventional Re-Design**	Alternative B: **Context Sensitive Design**
Description	• Add lanes at intersections as needed to improve traffic LOS • Time traffic signals to accommodate 45mph speeds with minimal delays	• Narrow traffic lanes to allow bike lanes or wider sidewalks and landscaping • Redesign for 30mph through alignment curvatures and traffic signals timing
Advantages	• Improves travel time mobility • Improves bus on-time performance • Reduces emissions	• Traffic speeds compatible with adjoining uses • Improves pedestrian environment, economic vitality •Reduces emissions

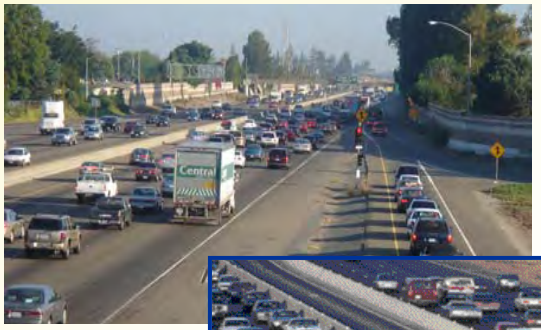
Case #2
Illustrative Performance Evaluation

Smart Mobility Measure	Acceptable Performance?	
	Option A	Option B
Speed Suitability		√
Multi-Modal Mobility		√
Ped and Bike Mode Share		√
Network Management	√	√
Emissions	√	√
Land Use Efficiency		√
Multi-Modal Level of Service		√
Percent Checked	***28%***	***100%***

Case #3: Management of Freeway Corridor

- 50-mile transportation corridor exhibits:
  - traffic congestion
  - lack of parallel roadway capacity
  - transit facilities approaching ridership capacity
  - incomplete HOV network
  - gaps and barriers within the bicycle network





Difference in Performance Measures

- Compared with CSMP, Smart Mobility measures emphasize safety and service for all modes of travel
- Smart Mobility measures consider growth and travel inducement impacts of highway capacity increases, and
- Resulting growth in emissions relative to climate law.

Smart Mobility FRAMEWORK