



Smart Mobility FRAMEWORK

Smart Mobility 2010: A Call to Action for the New Decade

Presented by: **Chris Ratekin**
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**Caltrans HQ Division of Transportation Planning,
Office of Community Planning**



Why Smart Mobility

- Respond to the transportation needs of the state's people and businesses
- Address climate change
- Advance social equity and environmental justice
- Support economic and community development
- Reduce per capita VMT



Caltrans' Objectives for Smart Mobility*

- Increase Transportation Choices
- Enhance Community Quality
- Reduce Environmental Impacts
- Support System Preservation
- Increase System Efficiency

* *From successful grant application to U.S. EPA*

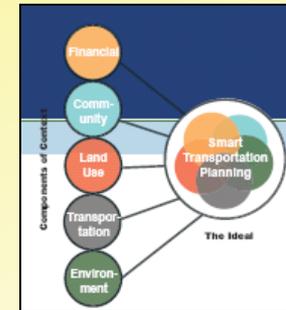


In Good Company: Other State DOT Efforts

New York DOT



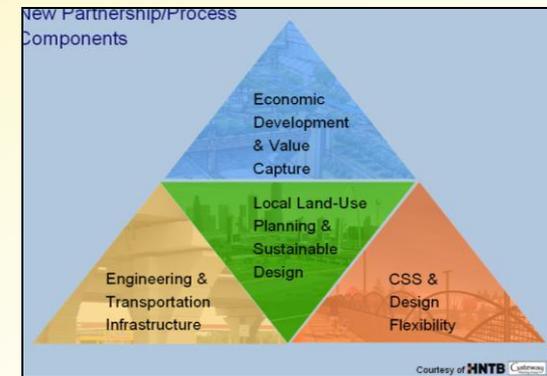
Penn DOT



Florida DOT

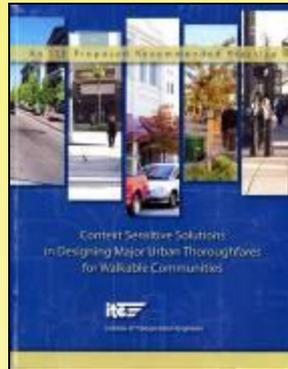
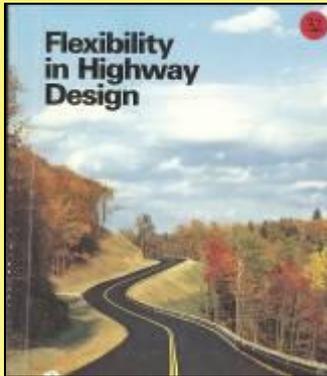


Texas DOT

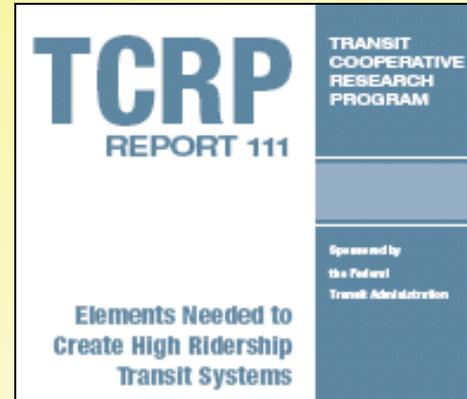


In Good Company: *Federal Activities*

Design Guidance



Research



New Initiatives



Best Practices

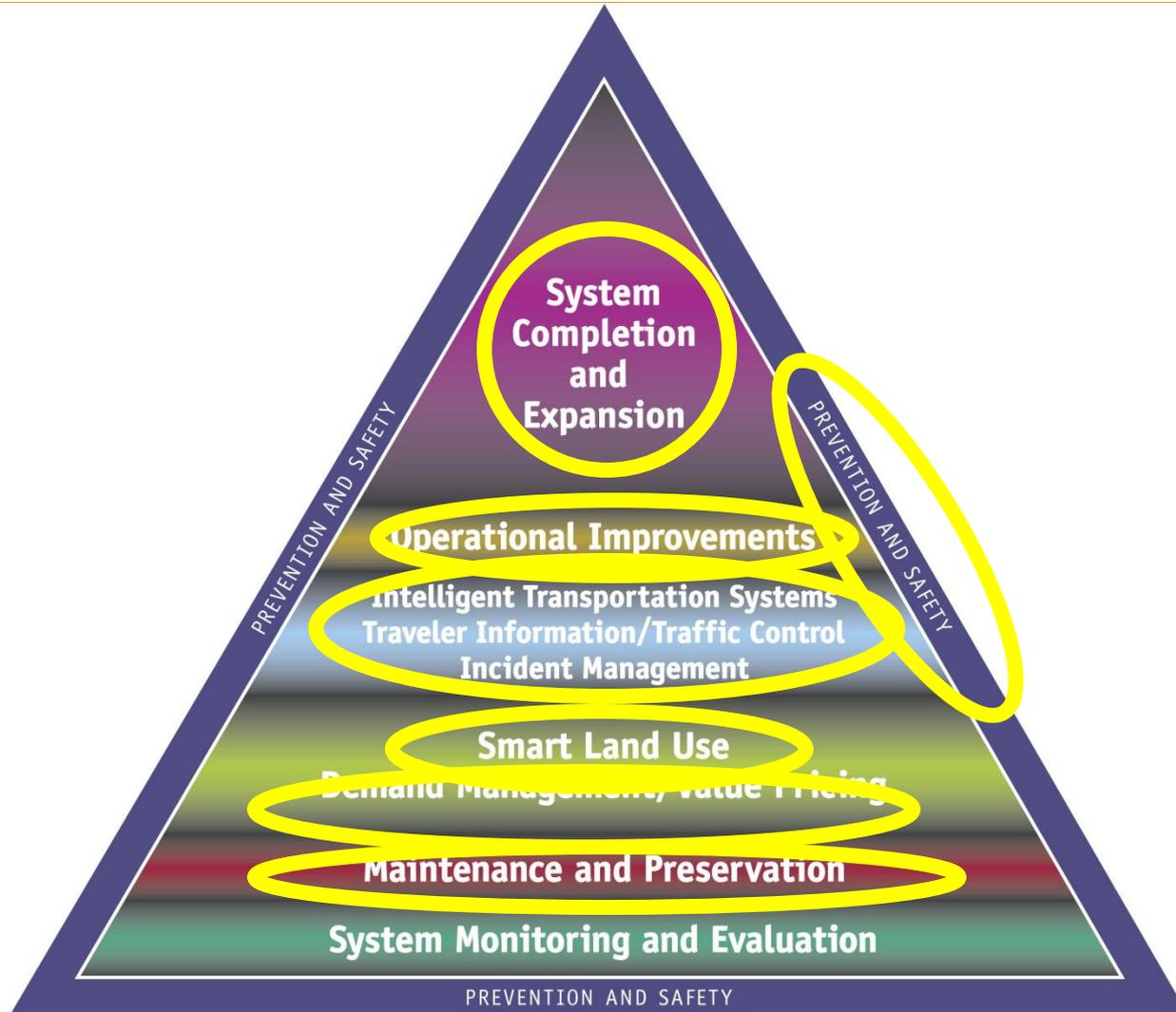


Supporting Smart Mobility in California:

- **Caltrans Director's Policies and Deputy Directives**
- **State Legislation & Executive Orders**
- **CEQA Greenhouse Gas (GhG) Guidelines**
- **Calif. Transportation Commission's guidelines for Regional Transportation Planning (RTP) to reduce GhG**
- **Regional efforts, such as Blueprint Plans**
- **Various Local Government efforts**



Governor's Strategic Growth Plan: Mobility Pyramid



Smart Mobility 2010

- Defines “Smart Mobility”
- Describes Smart Mobility visions and benefits
- Lays a foundation for implementation
- “Speaks to” all concerned agencies and organizations
- Includes policy, planning and programming actions



Smart Mobility: Final Definition

Smart Mobility moves *people and freight* while *enhancing* California's economic, environmental and human resources by *emphasizing*:

- convenient and safe multi-modal travel,
- speed suitability,
- accessibility,
- management of the circulation network, and
- efficient use of land.



Smart Mobility Principles

1. Location Efficiency
2. Reliable Mobility
3. Health and Safety
4. Environmental Stewardship
5. Social Equity
6. Robust Economy



Location Efficiency

“Location efficiency” describes the fit between the physical environment and the transportation system.

Location efficiency is key to integrating transportation and land use.

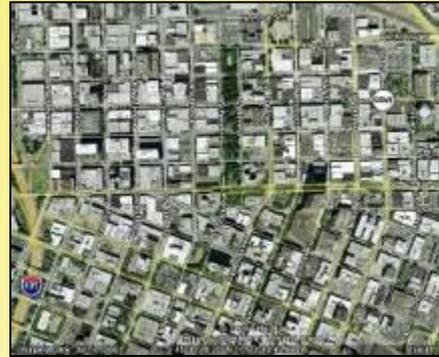


Location Efficiency:

- **Regional Accessibility:** Characteristics of development use, form, and location that combine with the multimodal transportation system to make destinations available through non-SOV travel and efficient vehicle trips at the *regional, interstate, and international scales*, and
- **Community Design:** Characteristics of development use, form, and location that combine with the multimodal transportation system to support convenience, non-motorized travel, and efficient vehicle trips at the *neighborhood and area scale*.



Location-Efficient Community Design Factors



Location-Efficient Regional Accessibility Factors



Opportunity to Create Location Efficiency (LE) Benefits

Location-Efficient Community Design

Moderate to Strong

Strong to Very Strong

Weak to Moderate

Moderate to Strong

Regional Accessibility



Place Type Guidance



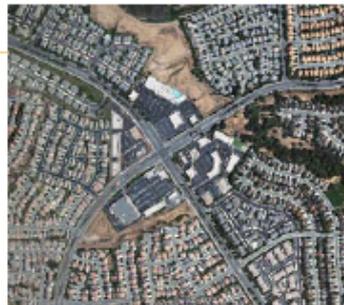
Suburban Communities

Smart Mobility Framework

Relative to the principle of location efficiency, suburban communities are characterized by weak presence of community design elements and variable presence of the regional accessibility elements that contribute to location efficiency. Suburban communities will be impacted by these factors for years to come. Achieving Smart Mobility benefits in suburban communities is difficult. These challenges point to the importance of minimizing the creation of new suburban communities, i.e. places ranking poorly relative to both of the Smart Mobility factors. This does not mean that lower-to-moderate density development should be prevented. Rather, all efforts should be made to direct the form of new development so that new compact communities or close-in compact communities are encouraged and incentivized while new suburban community characteristics are discouraged.

New lower-density development should be in the form of urban neighborhoods or compact communities that are characterized by complete community design and whenever possible by high regional accessibility. All levels of government should work together to minimize the creation of new suburban communities because they are characterized by few location efficiency factors, and the absence of these factors will work against efforts to control greenhouse gas emissions and maintain a healthy economy and economy. Instead, new development should be in the form of compact communities, whether close-in or in planned locations remote to urban centers.

The overall Smart Mobility strategy for suburban communities is to transition suburban centers and corridors to close-in compact centers and corridors. Higher density development with location-efficient community design elements would be concentrated in these transition areas. Larger suburban centers may transition to urban centers, which will create regional accessibility benefits for surrounding suburban communities. The implementation possibilities identified below reflect this emphasis on transition away from suburban centers and corridors. Section 3.4 further addresses place type transitions. Stewardship priorities underlie the Smart Mobility Framework for transitioning away from suburban



communities to compact communities and urban centers, with a focus on change in suburban centers and corridors. In suburban communities, freeway and arterial widening projects, including HOV systems, should be undertaken only when they can be demonstrated to be unlikely to generate increased pressure on outlying lands for suburban expansion. For the same reason, new interchanges on existing freeways should be constructed only where they are tied directly to adopted local and regional plans for new location efficient growth as evidence by Smart Mobility performance measures.

A strong presence of location efficiency factors is difficult to achieve in suburban communities, which is the main reason for the Smart Mobility Framework's emphasis on transformation to other place types. Within suburban communities, activity is relatively concentrated in suburban centers, so suburban opportunities for location efficiency are typically best there.

The principle of Reliability supports an approach to street and intersection operations that focuses on providing predictable travel times through traffic and incident management. Health and Safety principles direct attention in particular to conditions on suburban arterials, many of which lack basic accommodation for bicyclists and pedestrians. Slower speeds and improved facilities will address paramount safety concerns as well as promoting public health outcomes.

Applying the Smart Mobility Framework to Place Types

Planning

Key Activities:

- Identify centers and corridors that can be transformed into more location-efficient places. Plan for them in terms of land use, urban design character, and transportation services. Given the high level of public investment and the lengthy time horizon required to stimulate these changes, locations should be prioritized to align with market potential and other community objectives.
- Identify near term opportunities to improve health and safety through active travel, safe routes to school programs, and traffic safety initiatives.

Transportation Projects and Programs

Likely priorities in Suburban Communities places:

- Investments that improve the operational efficiency of existing arterial and regional plans for new location efficient growth as evidence by Smart Mobility performance measures.
- Projects that improve connectivity leading to shorter average trip lengths and increased non-auto mode share. (Location Efficiency, Environmental Stewardship, Health and Safety)
- Investments in "complete streets" and safe routes to school measures that improve conditions for walking and bicycling. (Health and Safety, Social Equity, Location Efficiency)

- Access management and speed management on the arterial system. (Reliable Mobility, Health and Safety)
- Where there are concentrated employment centers, commute transit service and rideshare promotion. (Social Equity, Location Efficiency, Environmental Stewardship)

Development and Conservation Projects and Programs

Likely priorities in Suburban Communities:

- Where high capacity transit stops and stations are located along high capacity transit corridors between cities, transit oriented development with managed parking and car and bike share at stations. (Reliable Mobility, Robust Economy, Environmental Stewardship)
- Strategic redevelopment of commercial corridors and dedicated use areas such as large shopping malls and business parks, in order to incorporate Location Efficiency factors. (Location Efficiency)
- Strong presence of community design factors for all new construction. (Environmental Stewardship, Location Efficiency)

Suburban Communities

Place Type Transition



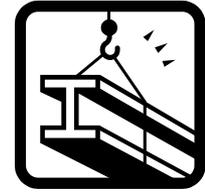
Place Type Transitions:



Anchored Places. Places in which the presence of location efficiency factors will increase over time, but where a single Smart Mobility place type framework will consistently apply. In these places, investment decisions would be based on enhancing the presence of location efficiency factors.



Place Type Transitions:



Transitional Places. These places will be targeted for significant change, “evolving” over time to feature a significantly greater presence of location efficiency factors that justifies a change in smart mobility place type framework.



Smart Mobility Performance Measures (Part 1)

Principle	Performance Measure
Location Efficiency	1. Support for Sustainable Growth
	2. Transit Mode Share
	3. Accessibility and Connectivity
Reliable Mobility	4. Multi-Modal Travel Mobility
	5. Multi-Modal Travel Reliability
	6. Multi-Modal Service Quality
Health and Safety	7. Multi-Modal Safety
	8. Design and Speed Suitability
	9. Pedestrian & Bicycle Mode Share



Smart Mobility Performance Measures (Part 2)

Principle

Performance Measure

Environmental Stewardship

10. Climate and Energy Conservation

11. Emissions Reduction

Social Equity

12. Equitable Distribution of Impacts

13. Equitable Distribution of Benefits

Robust Economy

14. Congestion effects on Productivity

15. Efficient Use of System Resources

16. Network Performance

17. Return on Investment



Implementation Actions: 10 Themes

1. SMF Impact
2. Interregional Blueprint
3. Caltrans Policy & Practice
4. Other Departments' Activities
5. Data & Tools
6. Planning & Programming
7. Design Standards & Procedures
8. Major Cross-Functional Initiatives
9. Local Government Planning
10. Local Government Implementation



Implementation Actions: Highlights

- Support for Ongoing Activities
 - Regional Blueprint Planning
 - Complete Streets Implementation
 - HDM revisions
- Call for New Initiatives
 - Interregional Blueprint
 - Speed Suitability Initiative
 - Location-efficiency Initiative
- Integration with Related Activities
 - Sustainable Communities Planning and Alternative Planning Strategies
 - Federal Sustainable Communities Partnership



Smart Mobility 2010: A Call to Action for the New Decade

- Final document is available online:
<http://www.dot.ca.gov/hq/tpp/offices/ocp/smf.html>
- Provides implementation checklists for local, regional and state agencies
- Includes illustrations, examples, resources, and graphics

