

Transportation 2035 Plan Performance-Based Planning A Work in Progress



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Commission**



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San Francisco Bay Area

- 9 Counties
- Over 7 million people;
almost 4 million jobs
- 2nd most congestion nationally;
60 hours per year per person
spent in delay
(Texas Transportation Institute, 2007)
- Projected growth 2000 - 2030
 - Population: 29%
 - Roadway lane miles: 7%
 - Transit seat miles: 34%



Transportation 2035 Plan

- Regional long-range transportation plan
- Performance emphasis
 - Quantifiable performance objectives
 - Program and project assessment
- Freeway Performance Initiative (concurrent corridor studies)
- A work in progress
 - Began update summer 2007
 - Adoption March 2009



Policy Framework

E's

Goals

Performance Objectives

	E's	Goals	Performance Objectives
ECONOMY	Maintenance & Safety		Improve maintenance Local streets & roads: PCI of 75 or better State highways: distressed lane-miles no more than 10% of system Transit: average asset age no more than 50% of useful life <i>Source: State and local strategic plans</i>
			Reduce injuries and fatalities Motor-vehicle: 15% from today; bike/ped: 25% from 2000 levels <i>Source: State Strategic Highway Safety Plan</i>
	Reliability		Reduce delay 20% per capita from today (recurring and non-recurrent) <i>Source: Governor's Strategic Plan</i>
	Freight		
ENVIRON	Clean Air		Reduce VMT and emissions VMT: 10% per capita from today Particulate matter: 10% to 45% from today CO ₂ : 40% below 1990 levels <i>Source: State regulations and laws</i>
	Climate Protection		
EQUITY	Access		Improve affordability 10% reduction in housing and transportation costs from today (low-income households)
	Livable Communities		

Performance Assessment

1. Vision (fall 2007)

Can we reach objectives through aggressive programs of infrastructure, land use, pricing?

2. Project-level (spring 2008)

How cost-effective are individual projects with respect to the objectives? (quantitative)

3. Investment alternatives (fall 2008)

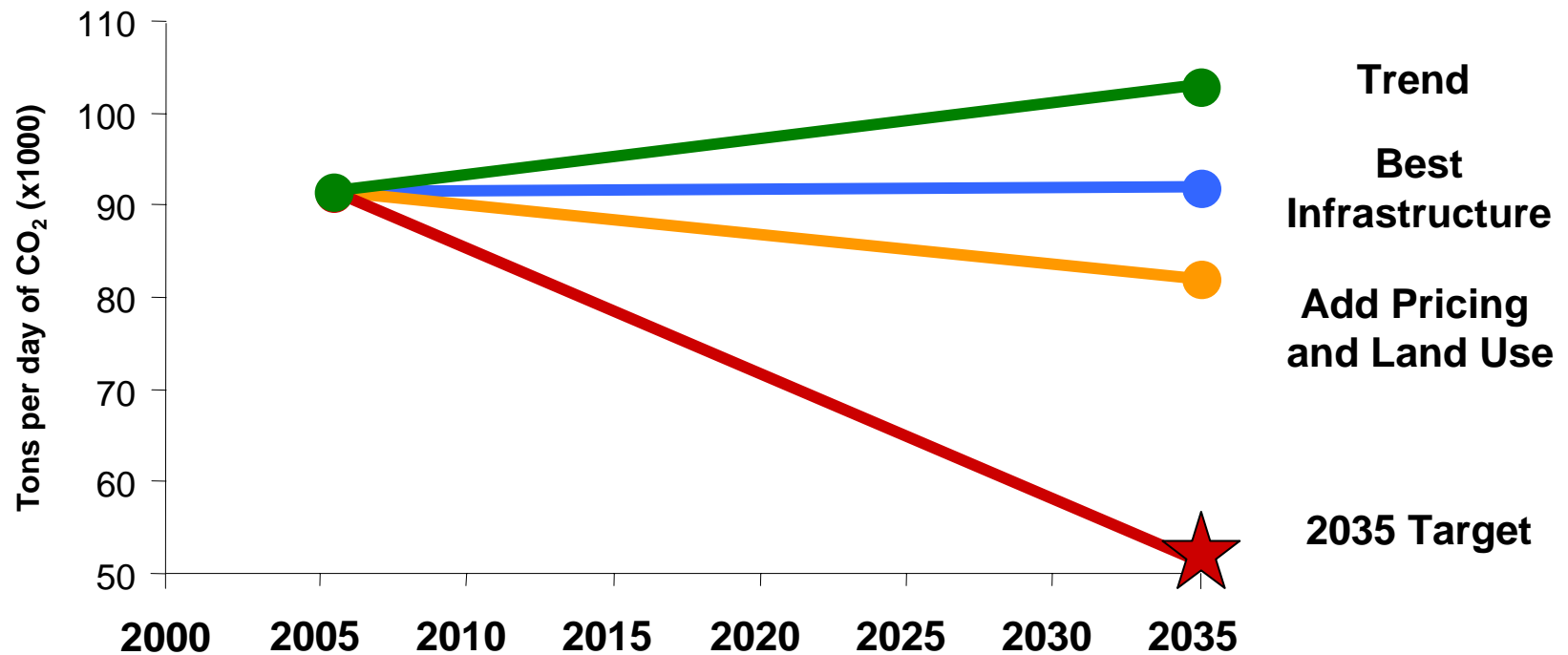
How close can we get through financially constrained, preferred investment alternative and/or “realistic” policy strategies



Vision Assessment

Reduce Emission

Reduce CO₂ to 52,000 tons per day



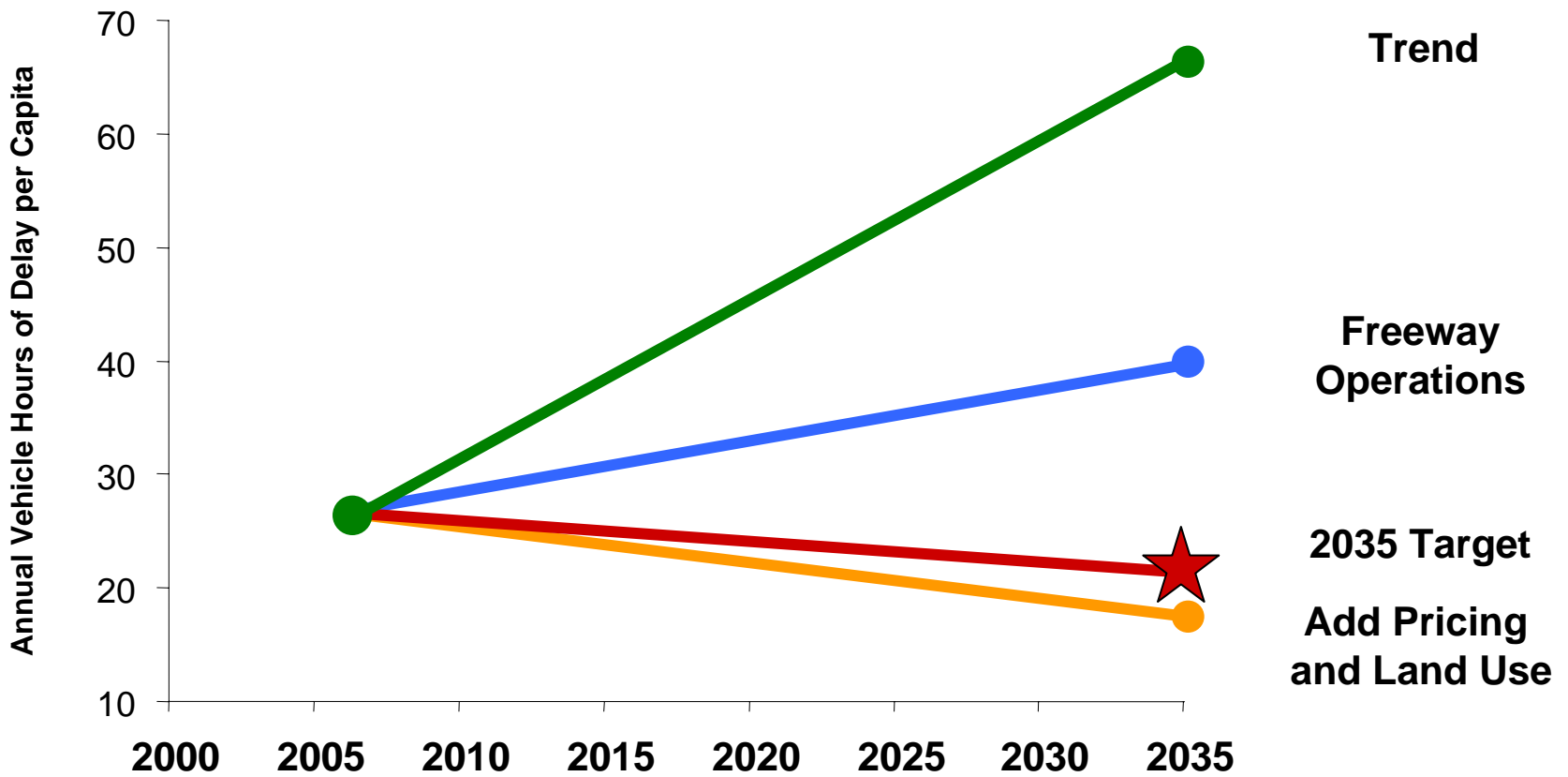
Note: Trend assumes current state laws and regulations, including fuel efficiency standards called for under state law passed in 2002, though currently in litigation (AB 1493, Pavley, 2002)



Vision Assessment

Reduce Congestion

Reduce delay per person to 21.3 hours a year



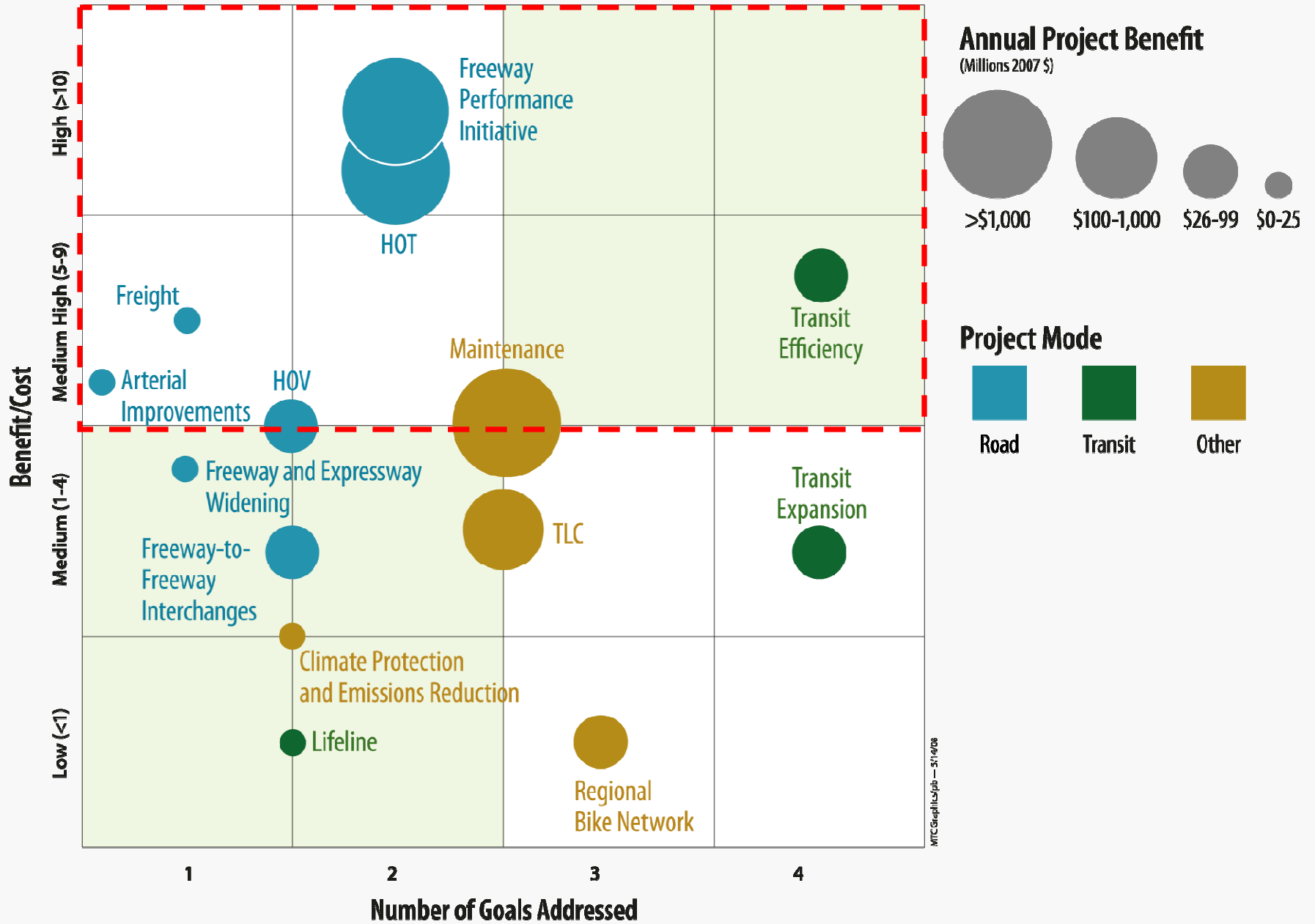
Benefit-Cost Measure

- Delay/travel time
(recurrent and non-recurrent)
- Particulate and CO₂ emissions
- Collisions
- Direct user costs
(vehicle operating and ownership)

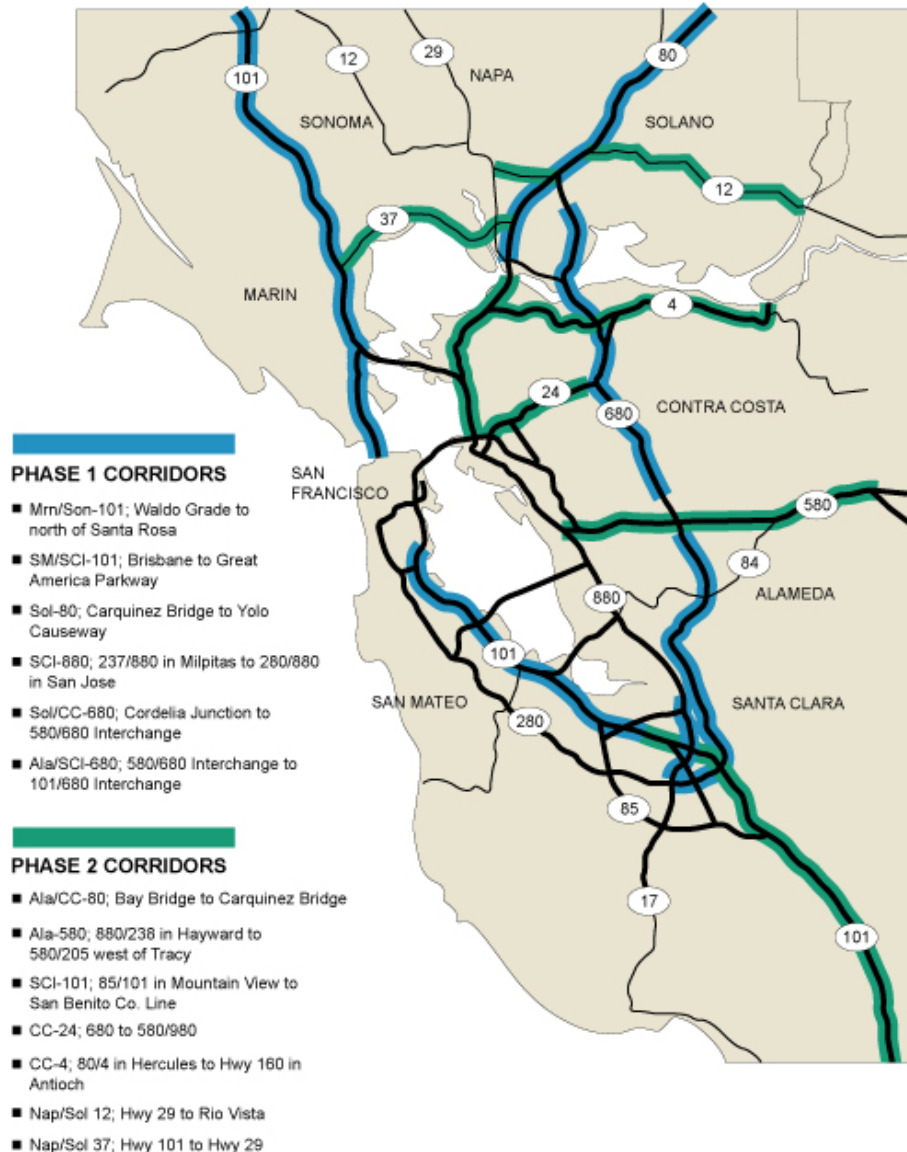


All benefits monetized

Project Performance Assessment



FREEWAY PERFORMANCE INITIATIVE



- Freeway strategic plan
- Prioritized list of strategies and projects
- Improve system performance with system management
- Complete HOV lane system
- Close key gaps in freeway infrastructure to address bottlenecks effectively

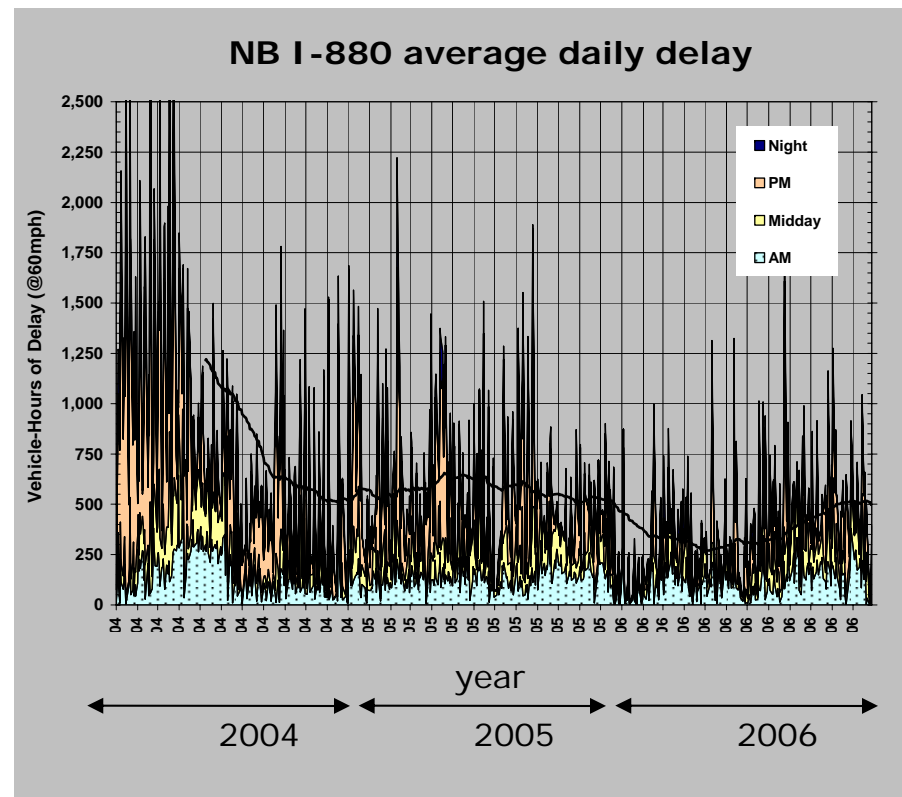
Analysis Process

- Different from “traditional” corridor planning analyses
- Focus on recurrent congestion created by bottlenecks
 - EXISTING* *FUTURE*
- Non-recurrent congestion created by incidents
 - EXISTING* *FUTURE*
- System management/ metering



What we've learned

- Non-recurrent congestion is a major problem (30% to 60% of total delay)
- Support for ramp metering exists
- System management strategies can provide near term congestion relief
 - Two successful ramp metering deployments

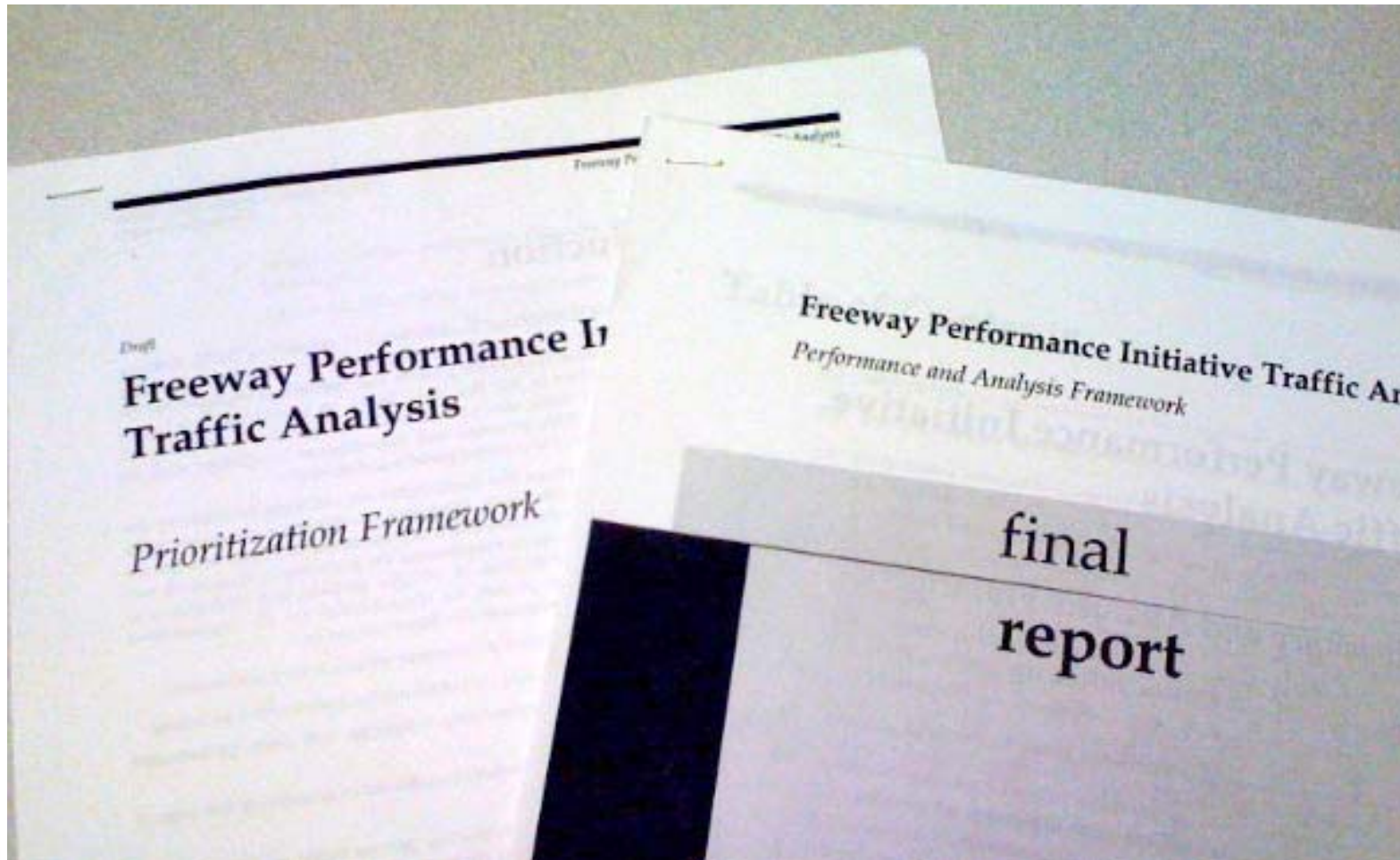


What we've learned (con't)

- Coordinating freeway and arterials can yield major benefits
- Need to fully utilize transit and Park & Ride capacity
- Many HOV lanes will be full in future with 2+ occupancy



Analysis & Prioritization Framework



FPI Performance Measures

- DELAY REDUCTION Veh-hrs reduced
- COST EFFECTIVENESS Cost / hrs saved
- RELIABILITY Buffer index
- SAFETY
- OTHER Freight impacts
Closing HOV gaps
Local support



Achievements

- Freeway/arterial management and operations demonstrated to be most cost-effective way to reduce congestion
- Broad support for regional investment, capital & operations



Next Steps

- Develop draft Transportation 2035 investment plan (now)
 - How will project performance assessment weigh in light of local priorities?
- Monitor progress toward objectives
 - Continue annual congestion monitoring and refine state of the system report
- Implement Freeway Operations Program

