

Managed Lanes

Fundamentals and Opportunities

September 12, 2013









What are managed lanes?

- Specialized lanes rather than general purpose
- Synonym for high occupancy toll (HOT) lanes like 91 Express Lanes
- Are a way to increase vehicle throughput and provide additional options for drivers
- Variable pricing to keep traffic flowing uncongested
- Address requirements for improved mobility, safety and productivity while also being sensitive to environmental and quality of life issues





Why managed lanes?

- HOV and HOT lanes can be a practical alternative to adding more general purpose lanes
- Are a way to increase throughput
 - 91 Express Lanes carry 45% of peak hour vehicles
 - Synergy with transit operations especially BRT
- Decrease travel time for transit
- Add capacity in non-attainment areas
- Generate revenue to pay at least part of the costs
- Critical "escape valve" for motorists with urgent need for time savings
- Address requirements for improved mobility, safety and productivity while also being sensitive to environmental and quality of life issues



<u>Revenue</u>: Priced or tolled managed lanes help transportation agencies generate revenue that can help offset capital and operational costs.

<u>Capacity:</u> Managed lanes squeeze as much capacity as possible from existing lanes.

Improve Mobility: Pulling traffic off general purpose lanes also helps relieve congestion in those lanes. Everyone benefits, even those who don't use the managed lanes.



Managed lane characteristics

- Serve 10 to 40 percent of total traffic
 - Depends on number of lanes and operating policies
 - Varies heavily by time of day
 - 91 Express Lanes serve about 15% of daily traffic but up to 45% of rush hour traffic
- Typically not used everyday by most drivers
 - 65-70% of all drivers on SR-91 have transponders; on a given day, only 1 in 5 transponders are used in the 91 Express Lanes
 - Perception is that 15% of drivers use the Express Lanes; reality is that 70% of drivers use the Express Lanes...but only 20% of the time
 - Usage is based on individual situations (late for meeting, home contractors, airline flight...)



Managed lanes across America





Los Angeles: The first two HOV conversions are now operating in Los Angeles County, on I-110 (Nov 2012) and I-10 (Feb 2013).

San Diego: SANDAG's long-range transportation plan includes a managed lane network. The I-15 managed lanes now extends 20 miles. The network plan includes managed lanes on I-5, I-805 and SR-52.

San Francisco: MTC included a 570 mile managed lanes network in the region's long-range transportation plan. Two HOV conversion projects have been completed I-680 (the Sunol Grade) and SR-237 in Silicon Valley.



Strategic Express Lanes Network

CI Lanes

3+ LANE

1-800-6

TOLL LA



EXPLANE STUDY

Strategic Express Lanes Network 'S NTURA COUNTY LOS ANGELES COUNTY fill. SAN BERNARDINO COUNTY 30 ۵ 100 101 30 Ø. 26 60 21 LEGEND RIVERSIDE COUNTY ORANGE existing express lanes COUNTY proposed strategic express lanes network toll roads HIMMINI () proposed toll roads SAN DIEGO COUNTY



Strategic Express Lanes Network

- Regional Approach
- Network Benefits
- Utilizes existing infrastructure to a high degree
- Potential for broader political support



Key Concerns for Policymakers

- How will the policy decisions be formulated and implemented?
- Public awareness and acceptance
- Redefining roles and responsibilities of all partner agencies.
 - Who controls? Caltrans or local agencies?
- Network versus project benefits; the importance of parallel routes.
- Will managed lanes improve air quality; is there a conflict between FHWA's degradation policy and EPA's air quality policy?



TCA has a significant role

- TCA knows how to build revenue generating infrastructure without taxpayer dollars.
- TCA understands tolling and toll operations.
- The Toll Road system provides significant portions of the managed lane network for Southern California as envisioned by SCAG.
- TCA Board Members can take an active role in the formulation and implementation of policy decisions for managed lanes.