Managed Lanes in California: Where We’ve Been Where We’re Going

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Managed Lanes Defined

• Lanes that are proactively managed in response to changing operating conditions in order to achieve improved efficiency and performance.
• Includes:
  – High-occupancy vehicle (HOV) lanes (carpool lanes)
  – High-occupancy/toll (HOT) lanes
  – Express toll lanes
Value of Managed Lanes

- Support modal shift
- Reliability
- Improved air quality
- Greater throughput
- Sustainability
- Revenue generation
Looking Back

• California was one of the first states to test and adopt managed lanes
  – Assessment of different operational and design approaches

• First state to develop design and operational guidelines
  – Have influenced standards of practice nationally
Looking Back

- First state to embrace a system of managed lanes
  - Regional HOV network plans developed in each major urban area
- Strong legacy of performance monitoring
- First demonstration of pricing
  - SR-91 P3 project and I-15 demonstration
  - Extensive research in facility usage and impacts on freeway performance
Today

• Operating
  – Nearly 1400 lane-miles HOV
  – Over 200 lane-miles HOT

• In Development
  – Just over 700 lane-miles HOV
  – Over 1700 lane-miles HOT

• Extensive regional partnerships in system development and operation
Today

- Predominantly HOV-2
- Single occupant plug-in hybrids & clean-air vehicles allowed
- Limited access, full time in south, continuous access, part time in north
- Key component to achieving AB 32 air quality goals
Planning for the Future

• Protect the investment made in the system
• Get the most productivity out of the system
• Prepare for growth

• Addressing Degradation
• Statewide Policy on Managed Lanes
• Statewide Tolling Policy
• Managed Lanes System Plan
• New Managed Lane Guidelines
Addressing Degradation

- Federal performance standard for HOV lanes used by hybrid vehicles and HOT lanes
- 59 percent of system failed to meet federal performance standard
- 48 percent of degraded facilities were in Caltrans Districts 7 and 8
- 51 percent of degraded facilities had low frequency of degradation
Addressing Degradation

• Districts develop Action Plan
• Short term actions
  – Stepped up enforcement
  – More frequent freeway service patrols
  – Fixing detection systems
• Long term actions
  – Infrastructure improvements
  – HOT lane conversions
  – Active traffic management strategies
Addressing Degradation

• Removing exempt vehicles not an option
  – Not a contributor to degradation
  – Runs counter to governor’s policies

• Occupancy changes may be considered
  – Must address negative impacts
Statewide Managed Lane Policy

- Defines the purpose of managed lanes
- Identifies a process for managed lanes system planning
  - Regional plans developed for each urban area
  - Updated at each RTP cycle, as needed
Statewide Managed Lane Policy

• Operational changes will be made by Caltrans in consultation with regional agencies and CHP
  – Changing occupancy requirements
  – Changing access control
  – Implementing pricing

• Defines when changes in operational strategies may be needed
  – Meet State and Federal performance standards
  – Preserve service levels
  – Address other freeway performance issues
Statewide Managed Lane Policy

• Identifies factors to consider when selecting or changing managed lane operational strategies
  – Safety and mobility considerations
  – Regional consistency

• Concept of operations required when implementing pricing
  – FHWA California Division requirement
Statewide Tolling Policy

- Optimize system performance
- Provide an alternative source of funding for transportation projects, improvements, and services
- Considered for all new capacity or expansions to existing facilities
- No existing non-toll lanes will be converted to toll, except for existing HOV lanes to HOT lanes
- Tolls may be collected by Caltrans or by a regional transportation agency
Statewide Tolling Policy

• Toll revenues cover indebtedness, operations, and maintenance
• Remaining revenues will be reinvested in the corridor for projects that improve travel reliability, provide travel options, or improve safety and operations
  – Excess revenue may not always be available
Managed Lane System Plan

- Blueprint for managed lanes on the State Highway System
- Utilize work already done at the regional level
- Coordinate with ongoing work at the regional level
Managed Lane System Plan

• Prioritize identified improvements in each regional plan
  – Develop screening criteria, such as degradation, constructability
  – Rank projects based on screening criteria
• Develop master plan of projects based on prioritization
Managed Lane Guidelines

- Update to 2003 HOV Guidelines
- System planning
- Use of pricing
- Managed lane facility design
- Traffic control devices for managed lanes
- Enforcement strategies
Considerations for the Future

• Modifying occupancy requirements
• Carpool registration requirements
• Changes in tolling technology
• Occupancy verification technology
• Impacts of connected and driverless vehicles
• Expect the State to be a more involved partner
• Decisions on managed lanes must balance local versus regional needs
Thank You

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