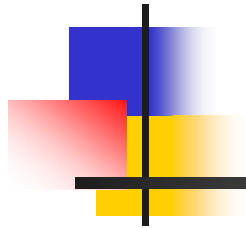


# Expressway & Tollway Issues & Future Directions – Freeway Management



1<sup>st</sup> International Symposium on Freeway &  
Tollway Operations

Jon Obenberger  
U.S. DOT Federal Highway Administration  
June 2006



## Challenges:

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- Unrestrained travel demand resulting in congestion
- Price of highway travel – little relationship to congestion
- Enhancing safety
- Changing business trends
- Limited ability to expand highway capacity
- Insufficient funding from highway trust fund
- Improve improvement project efficiency & effectiveness
- Reach timely decisions - good for environment & for transportation



## Opportunities:

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- Reduce fatalities & traffic crashes
- Manage existing capacity to improve traffic operations
- Improve freight mobility
- Target highway bottlenecks & expand capacity
- Pursuing context sensitive solutions (CSS)
- Enhance community livability – collaborative planning & environmental stewardship
- Pursue private sector partnerships & financing



# Advancing Freeway Management:

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- Develop freeway management program & business plan
- Monitor, evaluate & report on performance
- Advance freeway operational strategies
- Incrementally expand – service areas, reporting on performance & operational strategies
- Integrate w/ other systems (e.g., police, traveler information, corridor management)
- Integrate freeway operations – agency strategic plans & investment decision making processes



## Develop Freeway Management Program:

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- Develop multi-year business plan
- Key component - agency traffic operations program
- Map program & operation – agency & regions strategic plan, goals & performance measures
- Deploy, maintain & upgrade TMCs & ITS infrastructure
- Develop staff capacity
- Retain technical & support services – universities, research institutes & private firms
- Leader or partner – all initiatives to improve freeway performance



# Freeway Performance – Basis for Making Investment Decisions:

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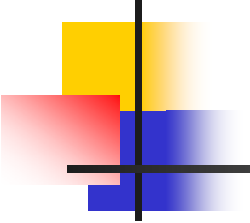
- Regional/statewide freeway system plans
- Corridor system plans
- Key component regional & agency strategic system plans
- Developing & designing freeway improvements
- Focus to improve safety & improve performance:
  - Bottleneck identification & removal
  - Mitigate capacity & geometric deficiencies
  - Staging & implementation freeway improvements
  - Operational & technology needs



# Freeway Management & Operations - Technical Resources:

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- Freeway Management & Operations Handbook & Course
- Ramp Management & Operations Handbook
- NCHRP Report – Freeway Performance & Evaluation Guide
- Traffic Management Center (TMC) resources – ex.:
  - Operator requirements, KSA & scheduling software
  - Operations Manual Handbook
- Technical resources available in other areas – ex.:
  - Managing travel for planned special events
  - Traffic incident management
  - Traffic analysis & tools



# Freeway Management & Operations – Research Circular:

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- Builds off of freeway management & operations:
  - Technical documents
  - “State-of-practice” white paper
  - Millennium “futures” paper
- Identify & prioritize research needs & projects
- Focus areas foundation of circular:
  - Freeway performance, investment decisions, operations strategies & supporting technologies
  - State-of-practice, trends, gaps practice & research & technology transfer needs



# Freeway Management & Operations – Research Circular:

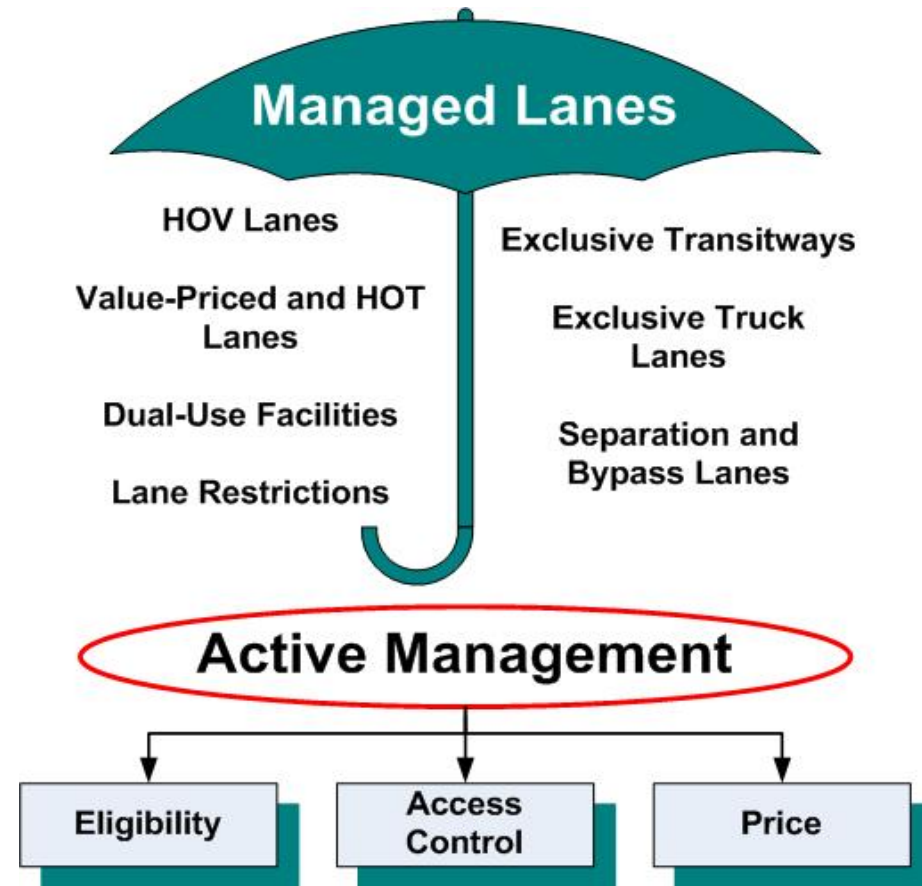
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## Focus Areas:

- Freeway Performance Monitoring, Evaluation & Reporting
- Impacts of Roadway & Operational Improvements-Freeways
- Ramp Management & Control
- Managed Lanes
- Traffic Incident Manual
- Freeway Management During Emergencies & Evacuations
- Managing Travel for Planned Special Events
- Information Dissemination
- Transportation Management Systems
- Traffic Analysis & Tools

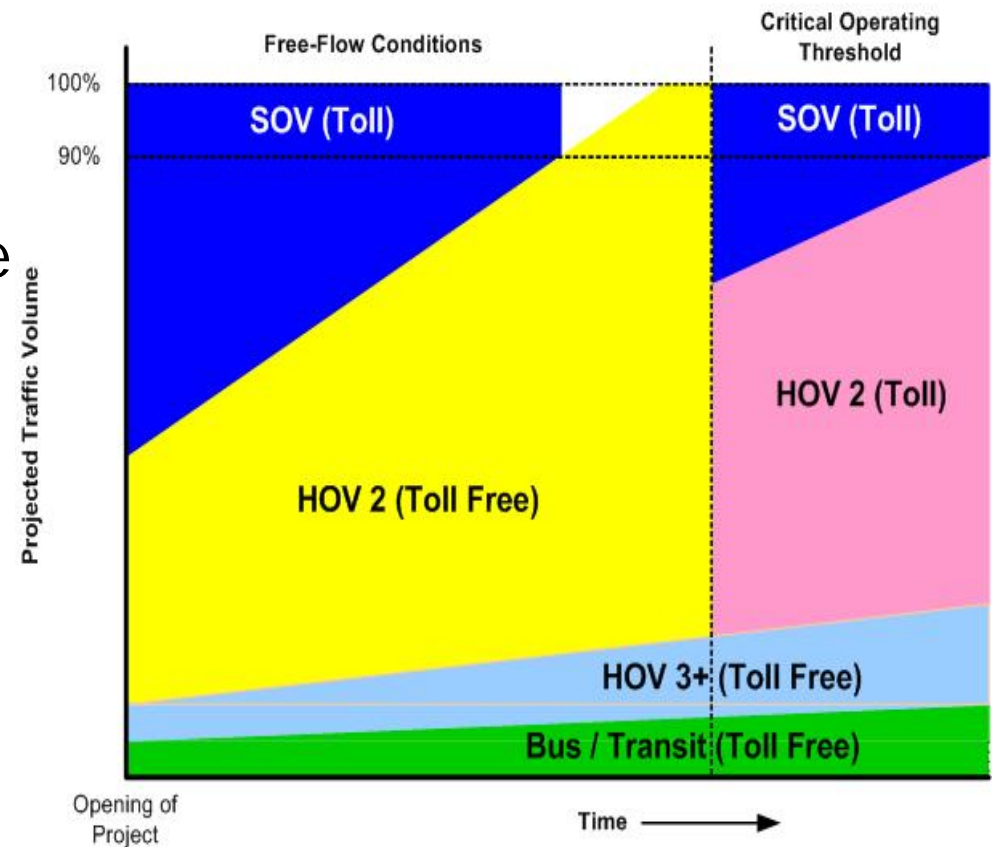
# Managed Lanes – Future & Priority:

- Operational strategies proactively implemented & managed in response to changing conditions
- Typically:
  - “freeway-within-a-freeway
  - Highway or set of lanes



# Raise "Bar" - Managing, Operating & Making Cost-Effective Investments

- Monitor, evaluate & report on performance
- Proactively manage & Operate facilities, lanes & access
- Integrate other systems
- Sponsor regional programs:
  - Special events
  - Traffic incident management
- Broker @ table with freeway investment decisions, planning & design





## Challenge – Next Steps:

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- Use currently available technical resources
- Promote recommended/successful practices
- Volunteer –nationally & internationally
- Pool - knowledge, practices & resources:
  - <http://tmcpfs.ops.fhwa.dot.gov> – TMC Pooled Fund Study
  - <http://www.fhwa.dot.gov> – FHWA Freeway Management Program
- Advance practices – “raise-the-bar”:
  - Agency/company
  - State, region, country & world wide
- Work with/involve Freeway Operations Committee