

IMPLEMENTING MANAGED LANES

HNTB

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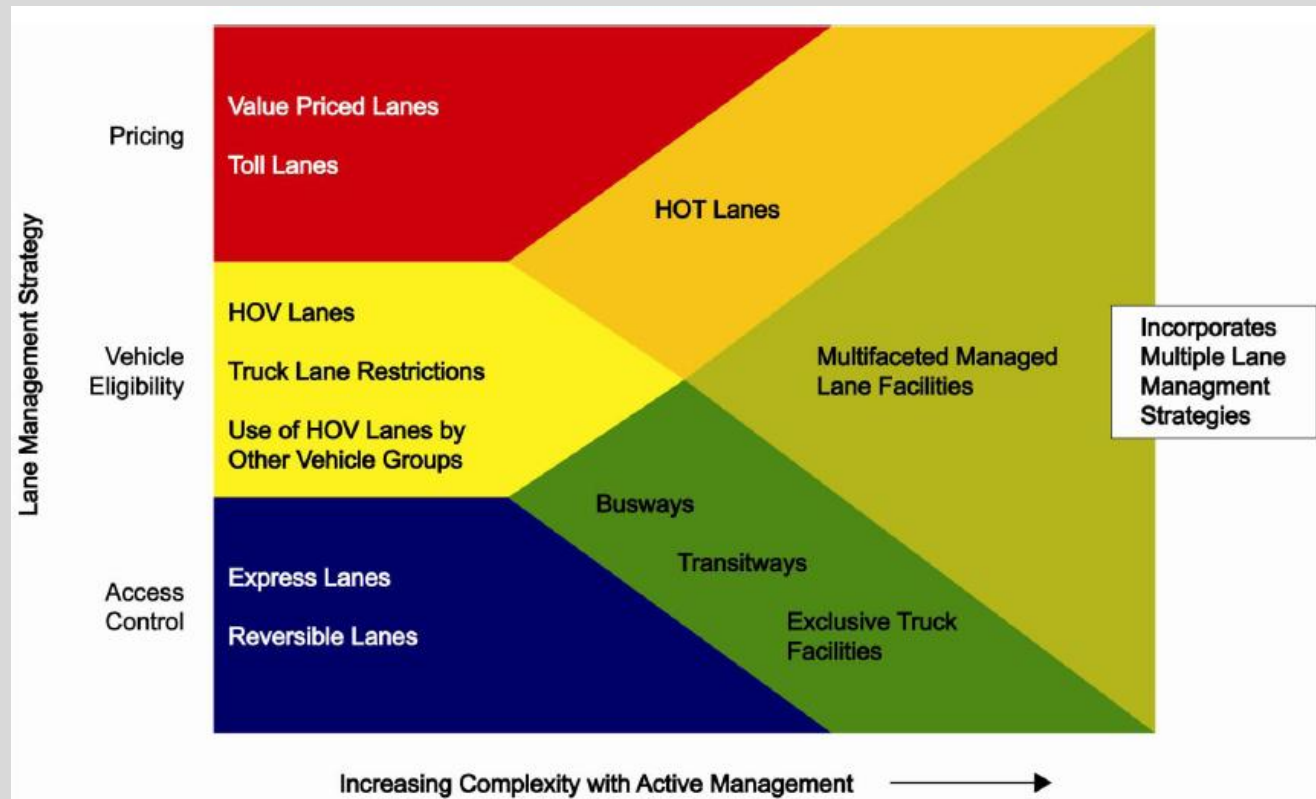
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What are Express Lanes?



Highway facilities or a set of lanes where operational strategies are proactively implemented and managed in response to changing conditions.

<http://ops.fhwa.dot.gov/freewaymgmt/managedlanesvideo/index.htm>



Express Lane Terminology

- Many terms used
 - High Occupancy Vehicle (HOV) Lanes
 - High Occupancy Toll (HOT) Lanes
 - Priced Managed Lanes/Express Lanes
 - Bus Rapid Transit Lanes (BRT)
 - Truck Only Toll (TOT) Lanes
- Can be physically similar
- Business rules determine what they are

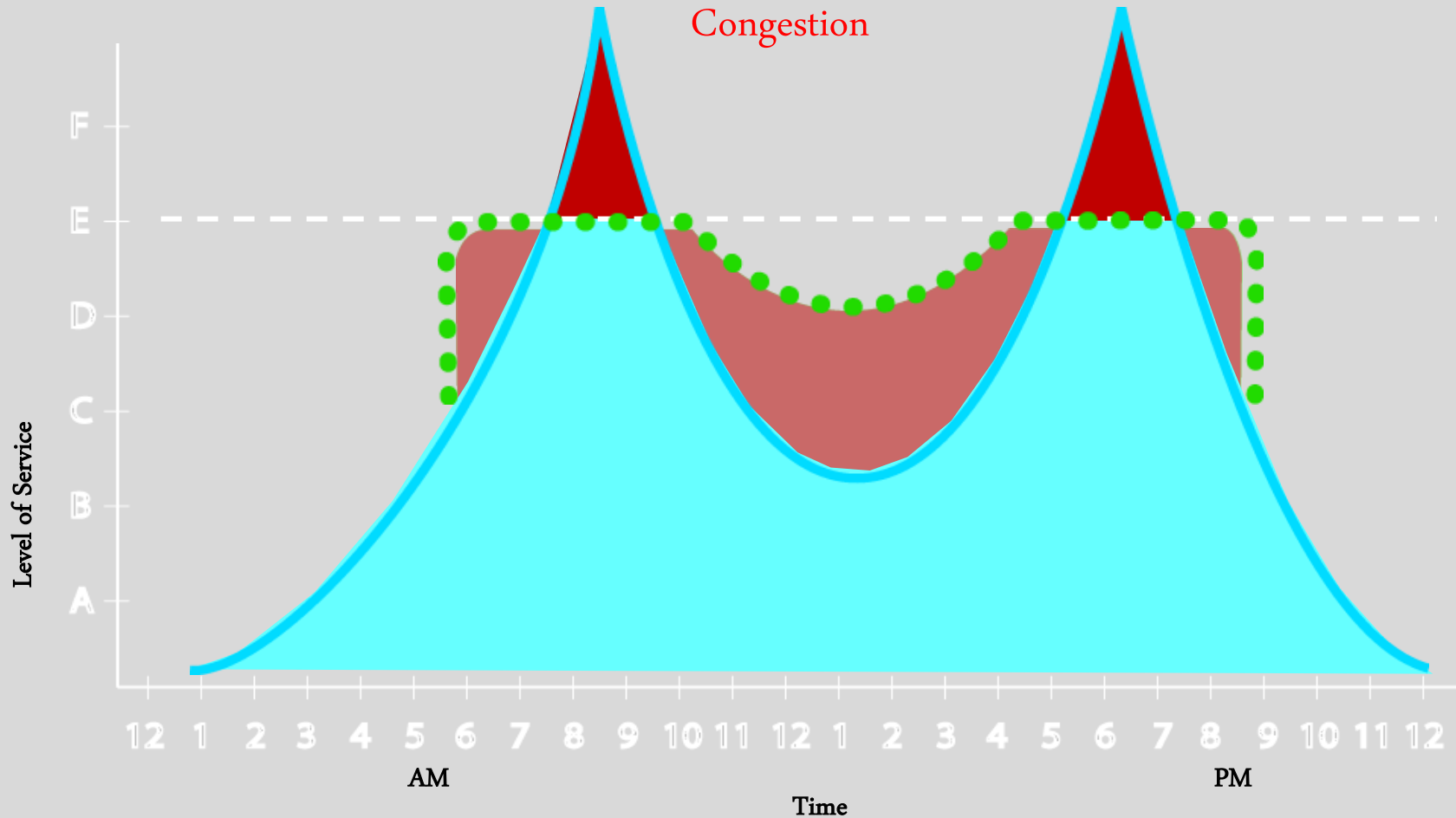
Why Express Lanes?



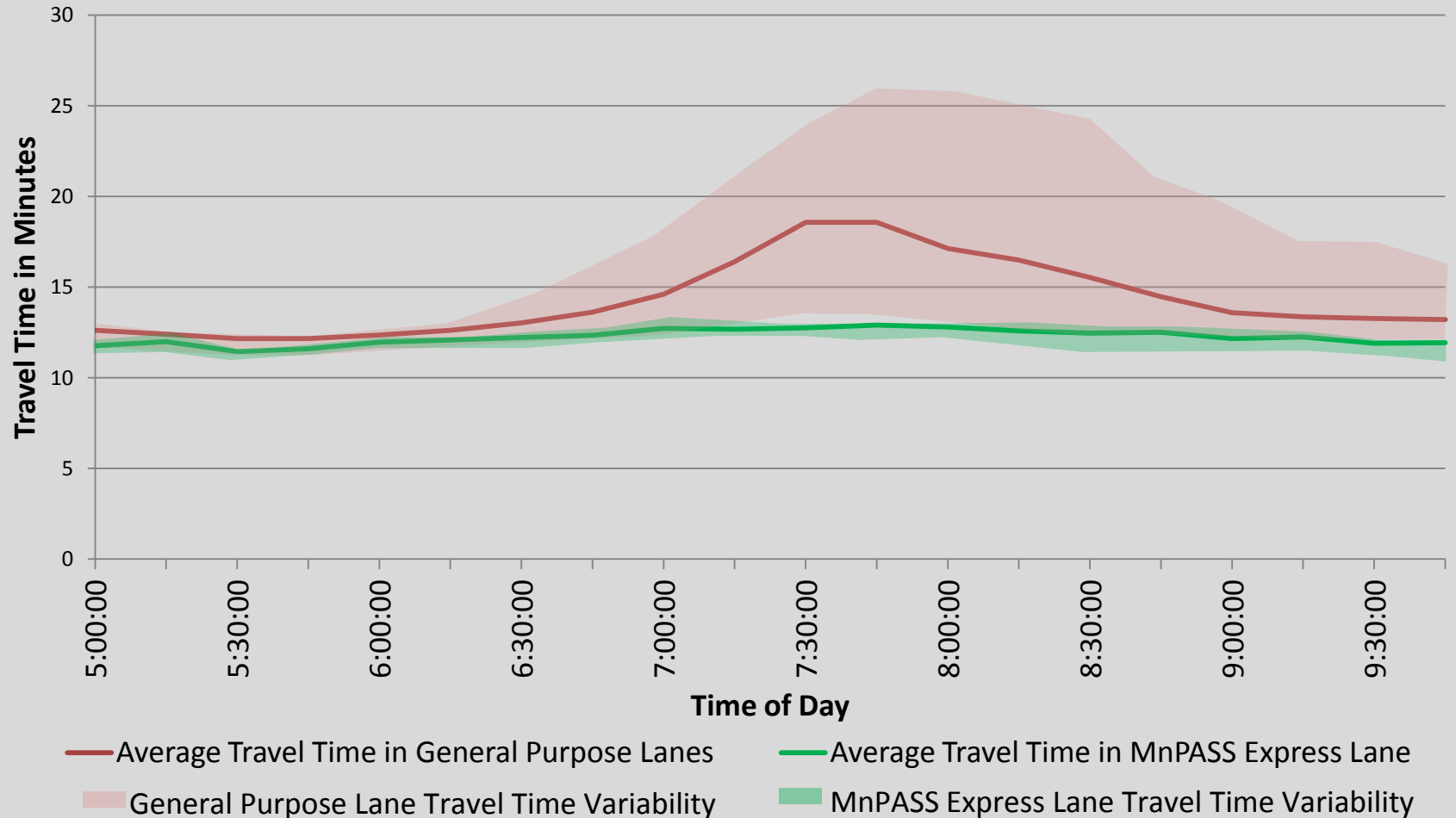
How do Express Lanes benefit a region?

- Trip reliability
- Time savings
- Improved mobility
- Congestion management
- Revenue generation
- Reduction in capital improvements

System Throughput: Congestion Pricing Concept



Travel Time Reliability: Northbound I-35W AM Peak



What are key consideration with Express Lanes?



- Three “feasibilities”: technical, institutional, financial
- Conflicting or compatible goals
 - Better management
 - Transit/rideshare promotion
 - Revenue generation
- Safety-speed differential
- Enforcement
- Sponsorship and governance

Route 91 Express Lanes Orange County, CA



Description:

- Opened December 1995 (Private Franchise)
- Purchased by OCTA January 2003
- 10 mi., 2-lanes each direction
- Buffer separated, access at ends
- Variable toll rates, predetermined rates by time of day
- Operates 24/7

Objectives:

- Use pricing to optimize the number of vehicles that can safely travel the toll lanes at free-flow speeds
- Finance the project to accelerate construction

SANDAG I-15 Express Lanes



- Extend to 20 mi. and widen to 4 lanes
- Bi-directional with movable barrier
- Add BRT Stations and intermediate access
- New toll collection system and enforcement system
- FHWA funding/VES pilot project for new technology



MnPASS I-394 – Minneapolis, MN



- Opened May 16, 2005
- Began as HOV – converted to HOT
- 10 mi. total, 8 mi. single lanes, 2-1/2 mi. reversible
- Striped buffer, 5 access locations in each direction
- Dynamic pricing, \$8 max., HOV2+ free
- Reversible 6am – 1pm EB, 2pm – 5am and weekend EB
- Tolls 6am – 10am EB, 2pm – 7pm WB



Pricing Opinion on Express Lanes

- 91% overall satisfaction
- 95% satisfaction with all electronic tolling
- 85% satisfaction with traffic speed in lane
- 76% satisfaction with dynamic pricing
- 66% satisfaction with safety of merging



Data from Survey of 500 MnPASS account holders in 2009

Common Misconceptions

- Express Lanes make lots of money (*Not True*)
 - Mobility vs. revenue
 - Very different business rules and policies
 - Enforcement strategies
- Express Lanes will work everywhere (*Not True*)
- Express Lanes are Always great Public-Private Partnership projects (*Not True*)

Successful or not?



- All are successful
 - Met their individual goals and success criteria



- Public acceptance
 - Initial resistance, ultimate acceptance



- All about choice
- Proliferation of new projects across the US

Where are Managed Lanes being considered?



- 91 Express Lanes in Riverside County, CA

- US 36 Corridor in Denver, CO



- I-495 Capital Beltway in Washington DC

- I-95/I-395 in Washington DC

- Managed Lane Networks: South FL, Atlanta, Seattle, SF, LA, Houston

- Congestion Charging: LA

- Truck Lanes in MO



What are the key lessons learned?



- Be realistic with expectations
- Don't take any existing capacity away
- Use is highly discretionary
- Not all corridors are good candidates
- Capital cost recovery through pricing typically requires more than 1 lane and restricting free use
- Agency partnering is critical
- Regional lane systems provide the best opportunities

What are the key lessons learned?



- Intense public/media outreach and education needed
- Elected officials outreach/education program
- Electronic Toll Collection program publicity (no toll booths)
- Strong business rules and enforcement
- Design – signing, access, termini
- Transit is part of the solution – not whole solution
- If employing Public Private Partnerships, understand the impacts of a profit motive
- Learn from others, talk among peers

QUESTIONS

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