

Managed Lanes

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What Are Managed Lanes?

- Dedicated Lanes on Freeway or Arterial
- Apply One or More Advanced Operational Strategies:
 - Congestion Pricing
 - Vehicle Preferences
 - Intelligent Transportation Systems (Technology)
- Lanes Actively Managed to Meet Pre-Defined Performance Objectives



Dedicating Lanes

- Express Lanes
- Reversible Lanes
- Egress/Ingress Minimized
- Barriers?
- How Many Lanes?





Congestion Pricing

- Variable Pricing: tolls by Time of Day per Schedule
- Dynamic Pricing: tolls raised/lowered every 15 min to distribute traffic flow and reach LOS "C" target



Vehicle Preferences

- High-Occupancy Vehicles (Including Transit)
- Trucks
- Transit
- Trucks + Transit = Long-Length Vehicles



ITS Applications: Information and Management Tools

 Comprehensive Real-Time Highway Performance Information

Tools to Control Flow



Merging Concepts: HOT Lanes

- High Occupancy Vehicles + Congestion Pricing
- High Occupancy Vehicles May Be Limited to Registered Carpools, Vanpools, and Transit







Performance Objectives for Managed Lanes

- Reduce Delay from both Recurring and Non-Recurring Congestion
- Improve Vehicle, Person, and Goods Throughput
- Improve Safe Operation of Expressway Facility

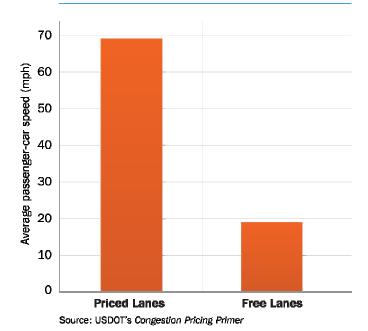
Road Pricing: SR 91 Impacts

Comparison of Speeds and Vehicle Throughput

on lanes with and without congestion pricing, State Route 91, California

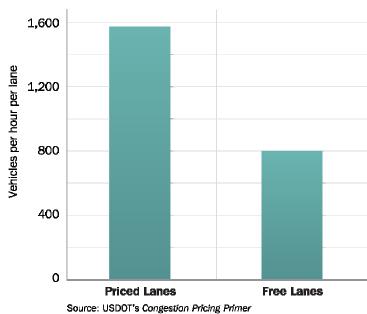
Speed

Traffic speeds during rush hours on State Route 91



Throughput

Peak period vehicle throughput during the hour with heaviest traffic on State Route 91





The Case for Managed Lanes

By Managing Lanes (Dedicating Lanes, Using Advanced Strategies, and Technologies), Metropolitan Chicago Can:

- Reduce or Eliminate Congestion on Managed Facilities
- Improve Peak-Period Throughput
- Improve Speeds
- Reduce Crashes and Highway Casualties