

# HIGH OCCUPANCY TOLL (HOT) LANES: OVERVIEW AND BENEFITS

## Overview

High Occupancy Toll (HOT) lanes allow qualified carpools and transit to use the High Occupancy Vehicle (HOV) lanes for free while other vehicles would use the HOV lanes for a fee. The fee rises and falls with the amount of traffic in the lane to keep the HOT lanes free flowing, thus providing more reliable travel times for commuters.

## Benefits

While no strategy can be expected to eliminate congestion, HOT lanes have the potential to provide a variety of benefits to both motorists and transit users. These benefits include:

### Trip Time Reliability

Traffic volumes on HOT lanes are assessed to ensure consistent and reliable travel times, particularly during peak travel periods. The U.S. Department of Transportation's performance standard for HOT lanes states that vehicles should maintain average speeds of at least 45 mph (90 percent of the time). On Minneapolis' MnPASS HOT lane, speeds of 50 mph are maintained over 95 percent of the time. In addition, traffic on Seattle's HOT lane (State Route 167) consistently flows freely during all hours of operation at speeds between 50 and 55 mph.

### Commuter Choices

In congested corridors with HOV facilities and transit service, HOT lanes provide Single Occupancy Vehicle (SOV) motorists with an additional travel choice: the option of paying for a congestion-free, dependable, and faster trip. Prices displayed on variable message signs provide potential users with the information they need in order to decide whether to use the HOT lane or the adjacent general-purpose lanes. Experience from other HOT lane projects suggests that single drivers use the lane on an as needed basis and value the HOT lane option for activities, including getting to an important meeting on time, picking up a child from daycare, or attending a family sporting event.

### Transit Enhancements

Transit riders are still able to use HOT lanes for free. In addition, transit users can depend on reliable trip times for their commute. Moreover, other HOT lane projects across the country report that travel times for transit remained the same or even decreased with the introduction of HOT lanes. Finally, significant transit enhancements in the form of new buses, increased express bus service, and new park and ride lots often accompany HOT lanes.



Source: U. S. Department of Transportation

For more information, please visit:  
[www.dot.ga.gov/I85HOTlanes](http://www.dot.ga.gov/I85HOTlanes)

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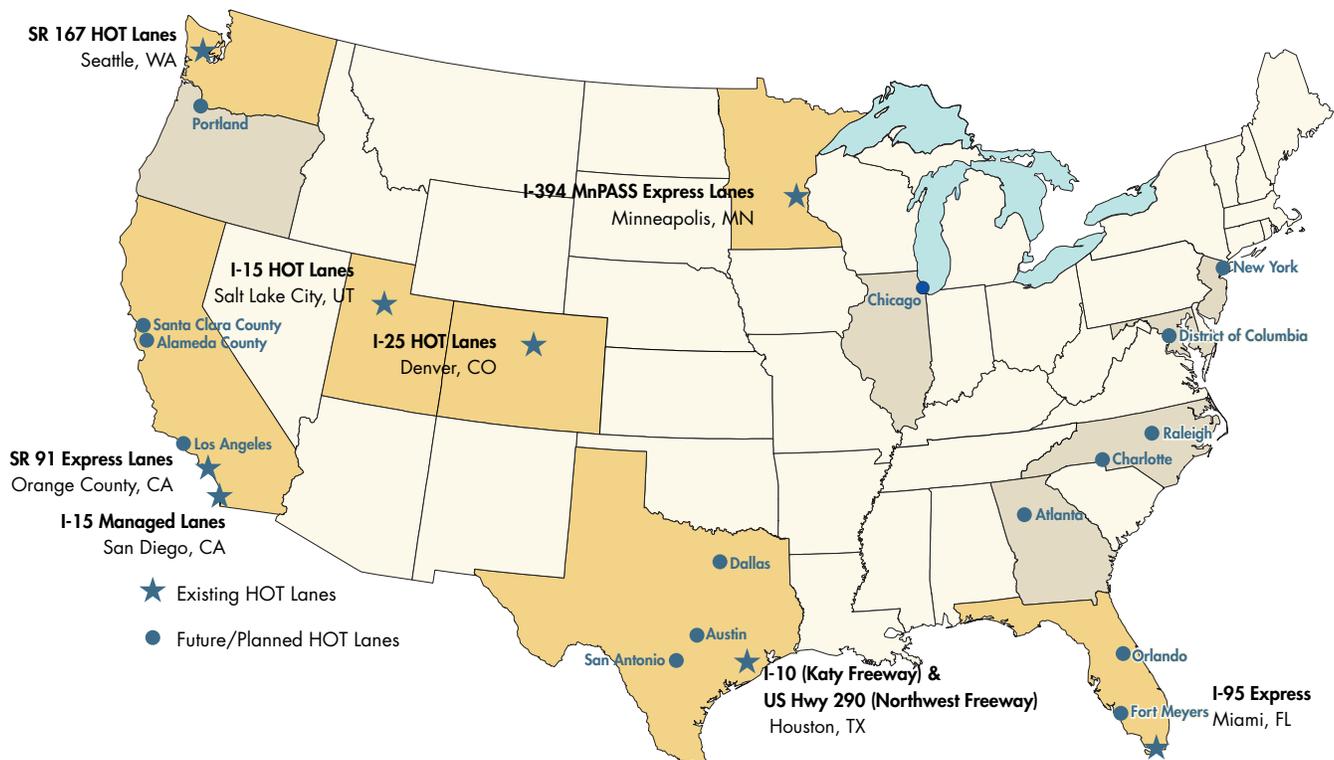
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# HIGH OCCUPANCY TOLL (HOT) LANES: PROJECTS ACROSS THE U.S.

High Occupancy Toll (HOT) lanes are currently operating or being planned in a number of cities across the country. Cities with existing HOT lane projects include:

- San Diego
- Minneapolis
- Orange County
- Denver
- Houston
- Seattle
- Miami-Fort Lauderdale
- Salt Lake City

## Map of HOT Lane Projects in the U.S.



# HIGH OCCUPANCY TOLL (HOT) LANES: PROJECTS ACROSS THE U.S.

## I-15 in San Diego

Since 1998, single-occupant vehicles pay a per-trip fee each time they use the eight miles of I-15 HOT lanes. Tolls vary “dynamically” (i.e., in real time) with the level of traffic on the lanes. Fees may rise or fall in \$.25 increments as often as every six minutes to help maintain free-flow traffic conditions on the eight mile segment. In addition, between 1998 and 2006, the number of carpools increased by 50 percent. I-15 commuters, including HOT lane users, carpools, and general purpose lane commuters, overwhelmingly support the HOT lanes.

## I-25 in Denver

Seven miles of I-25 High Occupancy Vehicle (HOV) lanes were opened in the mid-1990s with a two+ vehicle occupancy requirement. Although carpool, vanpool, and bus use of the HOV lanes was good, available capacity still existed. In 2006, toll paying solo drivers were allowed to use the I-25 HOV lanes. These express lanes use electronic toll collection with preset variable pricing by time of day. The current fees range from a low of \$0.50 on Saturdays, Sundays, and off-peak periods to a high of \$3.25 during peak times to use the seven mile HOT lane. Solo drivers must obtain a transponder (which works similar to the Georgia Cruise Card) and maintain an active account to use the express lanes. The transponders can also be used on other toll facilities in Denver.

## I-394 in Minneapolis

MnPASS, which was implemented in 2005, enables solo drivers to use the 11 miles of HOV lanes on I-394 for a fee. Dynamic pricing is used, with tolls based on the level of congestion in the HOV lanes. The base toll is \$.25, and the maximum toll is \$8.00 to use the 11 mile HOT lane. MnPASS was undertaken to meet a number of objectives including improving the efficiency of I-394 by increasing the person- and vehicle-carrying capabilities of the HOV lanes, maintaining free flow speeds for transit and carpools in the HOV lanes, and enhancing highway and transit in the corridor with project revenues. In 2006, 63 percent of the traffic on MnPASS was buses and carpools, while 32 percent of the traffic was tolled vehicles, and the remaining five percent was toll violators.

## SR 167 in Seattle

Seattle’s HOT lanes were introduced on nine miles of State Route (SR) 167 in 2008. Toll rates vary to ensure that the HOT lanes are free flowing even when the general purpose lanes are congested. The HOT lanes preserve transit and carpools advantages (reports from Seattle indicate that travel times for carpools and transit have not increased since the introduction of the HOT lane), while allowing solo drivers the option to pay for a faster, more reliable trip when they need it most. Average tolls during rush hour often are between \$2 and \$5 the nine mile HOT lane segment.



Source: U. S. Department of Transportation

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# HIGH OCCUPANCY TOLL (HOT) LANES: EQUITY

Surveys conducted on High Occupancy Toll (HOT) lanes have concluded that a broad spectrum of income groups approve of congestion pricing because they are given the choice of selecting a tolled route, an alternative route, or a different mode of transportation. Furthermore, transit riders actually experience faster and more reliable transit trips with HOT lanes.

Findings from recent surveys and/or reports include:

- Focus groups and surveys conducted in 2008 by Georgia Tech regarding potential HOT lanes in the Atlanta metropolitan region asked participants about their willingness to pay for a trip on the HOT lane and how often they expected to use it. The researchers found that both low and high income respondents were willing to pay nearly the same amount for a trip on the HOT lane. Furthermore, the number of times per week that respondents expected to use the HOT lane was very similar among low, medium, and high income participants.
- In San Diego, there was 60 percent support for the FasTrak HOT Lane on I-15 amongst those persons with incomes of less than \$40,000.
- Studies on State Route 91 in southern California have shown that at any given time about three-quarters of the vehicles in the toll lanes belong to low- and middle-income individuals with only one-quarter of the vehicles belonging to high-income individuals. According to data collected on “express lanes” in California, low-income drivers are as likely to approve of the lanes as drivers with higher incomes. In fact, over half of the commuters (51 percent) with household incomes under \$25,000 a year approved of toll lanes.
- A 2006 survey on the I-394 MnPASS HOT Lane in Minnesota revealed that MnPASS usage was reported across all income levels, including 55 percent of lower-income respondents. The survey also revealed support for the lanes to be high across all income levels including 64 percent of lower-income respondents.



*Source: U. S. Department of Transportation*

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# HIGH OCCUPANCY TOLL (HOT) LANES: I-85 FOCUS GROUPS

In January 2009, six focus groups were conducted to learn what people liked or disliked about the concept of High Occupancy Toll (HOT) lanes. Participants were recruited using a random sampling of Interstate 85 commuters. Each 90-minute discussion consisted of eight or nine participants and one facilitator. Findings from the focus groups include:

## Perceived HOT Lane Benefits

While no strategy can be expected to eliminate congestion, HOT lanes have the potential to provide a range of benefits to both motorists and transit users. During the focus group sessions, several benefit themes emerged:

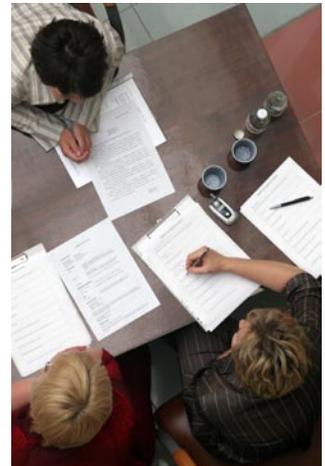
- HOT lanes provide drivers with a sense of control over traffic.
- HOT lanes are easy/convenient to use.
- HOT lanes get you where you need to be in a timely manner.
- HOT lanes make for a more enjoyable commute by reducing travel times.
- A HOT lane is optional; you do not HAVE to use it!

## Perceived HOT Lane Issues and Concerns

Focus group participants also provided feedback on issues and concerns, including:

- How is the HOT lane monitored and enforced for drivers who break the rules?
- What happens if there is an accident? Will I get a refund for having to get out of the lane?
- If I move in and out of the lane am I charged twice?
- How is the money from my toll going to be used?
- What is the maximum toll that will be charged?
- How do you enter/exit the HOT lanes? Where will these be located?

The issues and concerns brought up during the focus group sessions are being discussed by the project partners. These questions will be addressed through the normal project planning processes.



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