

High-Occupancy Toll Lanes

LEFT

TOLL
EXPRESS
LANES
ENTRANCE
1/2 MILE

EXIT 47

NORTH BUSINESS
234 234
Manassas
1 MILE

EXPRESS LANES
To Dulles Airport
HOV 3+
To 286 Fairfax Cpkwy
VEHICLE
TOWNSHIP
TRAILER
PROHIBITED
HIGHER TOLLS FOR
LARGER VEHICLES

HOT Lanes

- MPO TCC discussed sending a letter of support for NCDOT's Study of HOT Lanes on I-40 in particular.
 - I-40 west of I-26 is slated to be widened and HOT lanes could be part of the design.
 - STIP I-6054 A, B, C: From Enka-Candler exit to Waynesville/US74 exit
 - Projects are in P 7.0
- High occupancy vehicle lanes (HOV) are the oldest incarnation of managed lanes (ML), dating to the 1970's, but the practice is still effective at traffic calming even today.

Definition

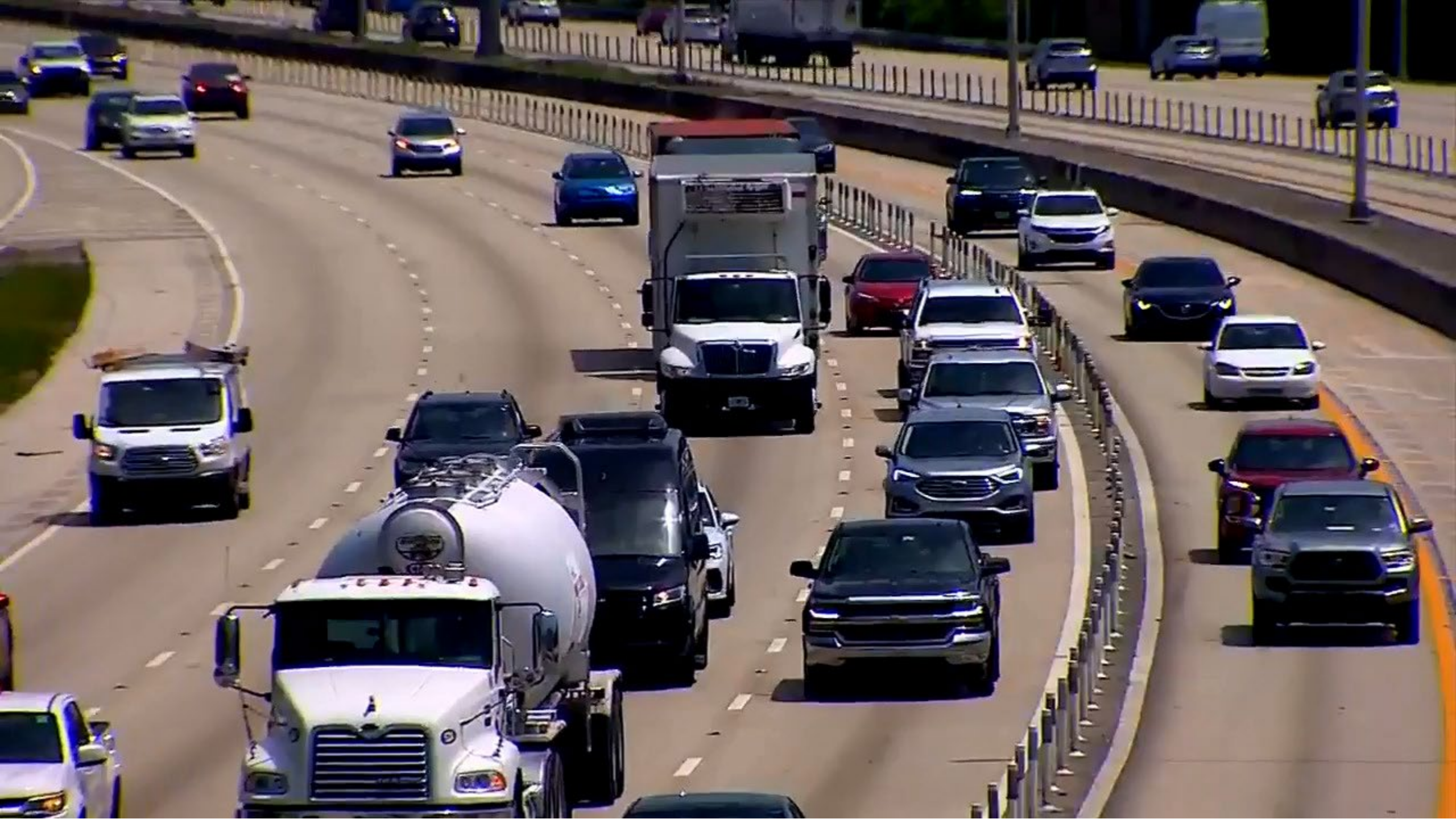
- A lane that is separated from regular traffic flow for vehicles with higher occupancy, or to vehicles with less than the required occupancy but who are willing to pay a toll.
 - HOV-2 minimum of two occupants
 - HOV-3 minimum of three occupants
- Combines price managed lanes with vehicle eligibility lanes
- Also called Fast Lanes or Express Lanes (sometimes “turnpike”)

History

- Tolls are not new for American roads – the first toll road in the US was established in Pennsylvania in 1795
- 1969: The first HOV lane was implemented in Northern Virginia
- 1995: The first HOT lane debuted in California
- 2014: First Express Toll Lane opened along I-595
- Today: There are **502** specialty lanes and highways, **463** operated by a public transportation agency, and **39** are privately operated.
 - They are owned by **151** unique entities including state agencies, local and regional authorities, city and county governments, and private companies.

Tolling

- HOT facilities use one of three pricing methodologies:
 1. Fixed-pricing: Users pay a fixed toll price regardless of the time or day.
 2. Time-of-day pricing: Toll prices vary according to specific schedule by time and day of the week.
 3. Dynamic pricing: Toll prices increase or decrease according to real-time demand, with higher toll prices usually occurring during peak periods.
- Of the Nation's **54** priced lanes, **1** has a fixed toll price, **13** have time-of-day pricing, and **40** have dynamic pricing.
- Many priced lanes require travelers to register for a toll account and equip a vehicle transponder. Other facilities permit travelers to receive an invoice through the mail as part of a “pay-by-mail” option.



Effectiveness

- According to FHWA, HOT lanes have proven to be more efficient than traditional HOV lanes.
 - Tolls collected can supplement operations, enforcement, and maintenance costs for the facilities.
- USDOT Case Study: Harris County, Houston, Texas
 - A 2006 report found that their HOV lanes (consisting of 113 miles at the time) handled almost 118,000 person trips each weekday, by serving about 36,400 multi-occupant vehicle trips.
 - The report found that the HOV lanes had lower average travel times than adjacent corridors and saved the average commuter 12–22 minutes per trip.

Effectiveness

- USDOT Case Study: Minneapolis, Minnesota
 - Increased the number of vehicles using the I-394 MnPASS lanes by **33%** since the facility's opening in 2005 without degrading transit and HOV use.
 - Travel speeds of 50 to 55 mph have been maintained for **95%** of the time in the lanes.
 - Transit ridership in the HOT lanes has remained high.
- According to FHWA, “research shows that communities with HOT lanes are often able to increase transit service”.



SOUTH
San Jose

45

Concerns

- **Goal Ambiguity**– HOV lanes were originally intended to combat the widespread pollution of the auto industry of the '60's and '70's by promoting carpooling. Allowing a toll as a means to bypass the need for commuters to consider carpooling defeats that original purpose.
 - If the goal is to generate income for NCDOT projects and helping promote carpooling is an added benefit; then HOT lanes make more sense.
- **Equity** – This one is more complicated. People who can afford to not be in traffic will pay the toll and people who can't afford it, will be stuck in traffic on their just as important commute, or, will not take the trip at all.