



# 511 on Managed Lanes



**A presentation to:  
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Force Annual Conference**

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# Agenda

- SRTA Overview
- What Are Managed Lanes?
- How Does Pricing Work?
- Opportunities for Georgia
- Next Steps

# Introduction – SRTA Snapshot

## Operations

**Toll Road**                    **6.2 miles**

**Revenue**                    **\$ 21 million**

**Annualized Traffic**  
**41 million**

**Electronic Toll Collection**  
**39%**

**Cruise Cards**  
**Accounts**                    **122,849**  
**Active Transponders**  
**201,934**

## Finance

Bond Manager for SRTA  
GDOT

<u>Year</u>	<u>Type</u>	<u>Bond Issuance</u>
1998	GRRB	\$ 89,020,000
2001	GRB	\$ 350,000,000
2003	GRB	\$ 309,000,000
2006	GARVEE	\$450,000,000
2006	Commercial Paper	\$ 50,000,000
2008	GARVEE	\$ 600,000,000

**“AAA” Bond Rating**

- Moody's AAA
- S&P AAA
- Fitch AAA

# Traffic Congestion & Challenges

- Atlanta ranked 2<sup>nd</sup> worst traffic in the nation by annual hours of delay per traveler according to the Texas Transportation Institute
  - \$2.581 billion annual cost in delay and excess fuel
  - \$1,177 absorbed by each peak time traveler per year
- Atlanta's population passed 5 million in 2006, 7 million by 2030
- Atlanta Regional Commission forecasts a more than 50% increase in the levels of peak period VMT and vehicle hours traveled between 2005 and 2030
- Freight movement growth, i.e. Port of Savannah
- Facing challenges to increasing capacity:
  - Funding shortfalls
  - Lack of Right-of-Way
  - Environmental challenges

# Definition of Managed Lanes

- Managed Lanes are defined as a set of lanes are regulated by vehicle eligibility (number of occupants or vehicle type), access control, and pricing.



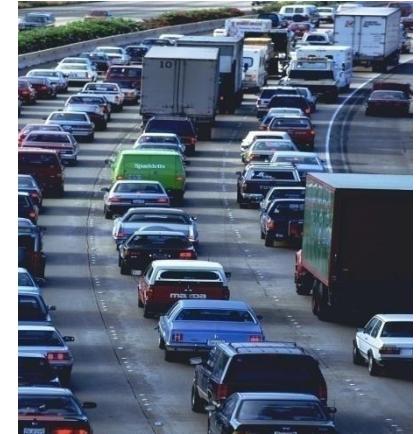
# Managing Traffic With Pricing

## No pricing:

- High Occupancy Vehicle (HOV)
  - Limiting vehicle access, vehicle eligibility and occupancy

## Add pricing:

- High Occupancy Toll (HOT)
  - Limiting access, vehicle type, occupancy, and using pricing
- Express Toll Lanes (ETL)
  - Limiting access, vehicle type, and using pricing
- Truck Only Toll (TOT)
  - Limiting access, vehicle type, and using pricing



# How Does Pricing Work?

Pricing allows better metering of traffic into a managed lane to prevent traffic from breaking down to stop and go traffic. Rice demonstration:

**Start – Same amount of rice (traffic)**

**End – More rice (traffic) through**

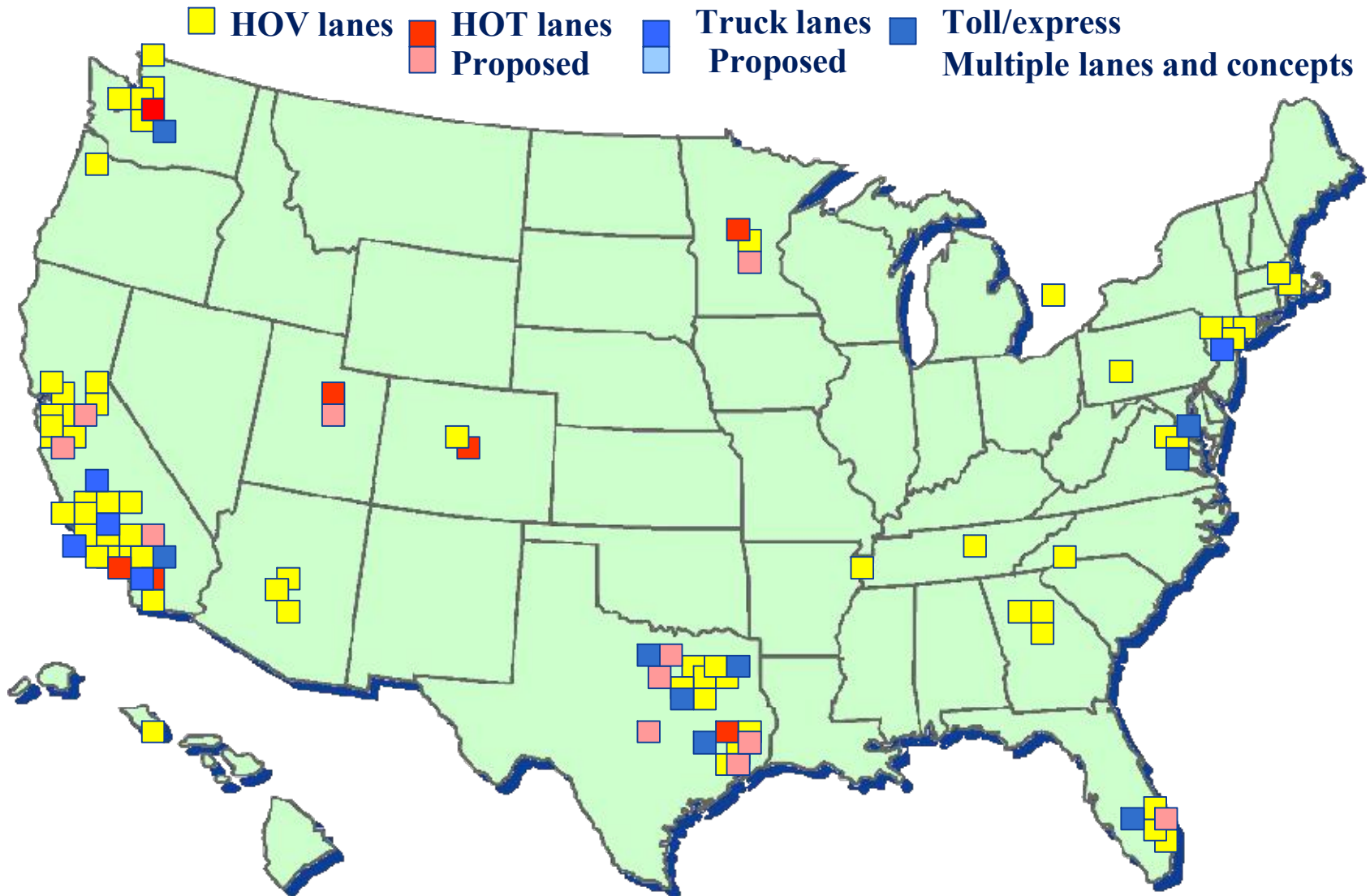


**Dump rice (no pricing)** → Rice bottleneck occurs, not much rice

**Add rice deliberately (pricing)** → No bottlenecking, lets more rice thru



# Managed Lanes – National Perspective

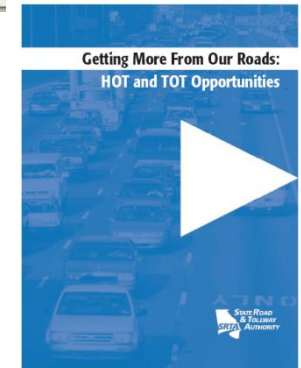
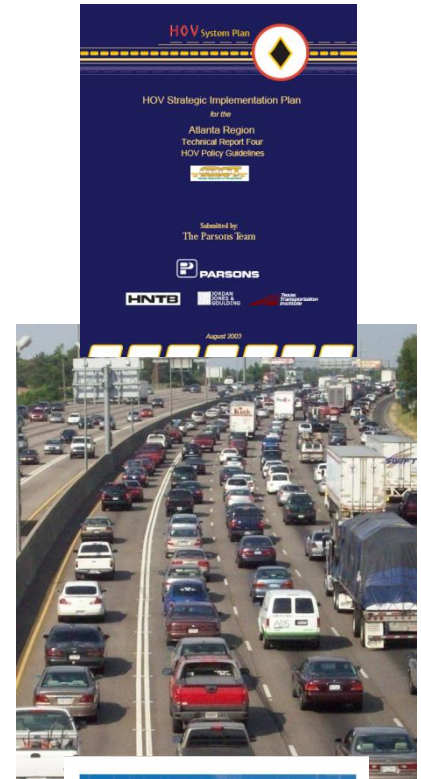


# Potential Benefits of Managed Lanes

- Managed Lane's potential benefits include:
  - Reduce travel delay
  - Increase trip time reliability
  - Provide added trip choices and corridor mobility options
  - Encourage carpooling
  - Improve the reliability of transit
  - Improve freight productivity
  - Maintain economic vitality
- Managed Lanes do not necessarily:
  - Generate a lot of revenue
  - Solve congestion by themselves
  - Noticeably help adjacent travel lanes

# Georgia's Move Towards Managed Lanes

- **1994** – First HOV corridor constructed in Atlanta, I-20
- **2003** – the HOV Strategic Implementation Plan for the Atlanta Region was developed
- **2003** – High Occupancy Toll (HOT) lanes study directive Senate Resolution 575
- **2004** – HOT lane legislation S.B. 489
- **2005** – SRTA HOT and Truck Only Toll (TOT) lanes feasibility study
- **2005** – GDOT board authorized the study of Managed Lanes
- **2005** – ARC managed lanes working group
- **2007** – GDOT board adopted a Managed Lane Vision
- **2008** – GDOT and SRTA boards authorizing feasibility plan for converting existing HOV lanes to HOT lanes.



# Potential Opportunities for Georgia

## Current Managed Lanes efforts in Georgia:

- Public Private Initiatives (PPI)
  - I-75 NW Corridor
- Value Pricing Pilot Program Studies
  - I-75 South in Atlanta and Savannah NW Tollway
- Statewide Truck Lane Study
  - Examined voluntary truck lanes
- Metro Atlanta Managed Lanes System Plan (MLSP)
  - Future network of managed lanes in Atlanta
- Converting HOV to HOT in Atlanta
  - Existing 44-centerlane miles



# Managed Lane Next Steps Towards Implementation

- **Consider the feasibility of Managed Lanes:**
  - Establish project goals and measurable objectives,
  - Determine primary participants,
  - Evaluate project funding options, and
  - Ensure equity and fairness.
- **Exploring the following issues for Managed Lanes:**
  - Engineering principles
  - Location of ingress/egress
  - Vehicle occupancy eligibility
  - Business rules for all open road tolling
  - RTP and TIP Inclusion
  - Financing
  - Air quality
  - Public involvement
  - Enforcement
  - Federal approval for tolling
  - Leadership decision



# QUESTIONS?

**Patrick Vu, PE**

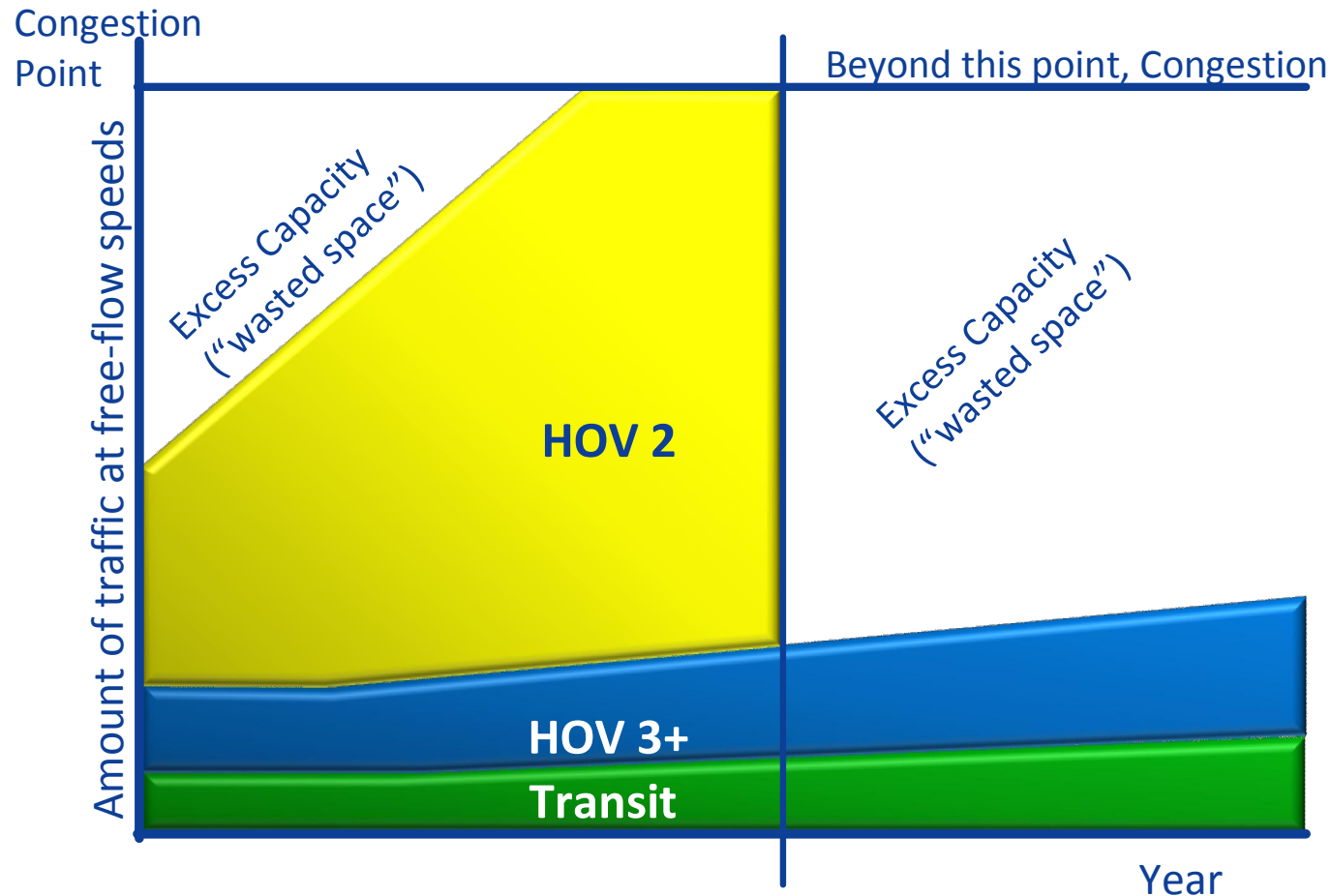
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# HOV Lane Performance

Operating scenarios of HOV lanes over time

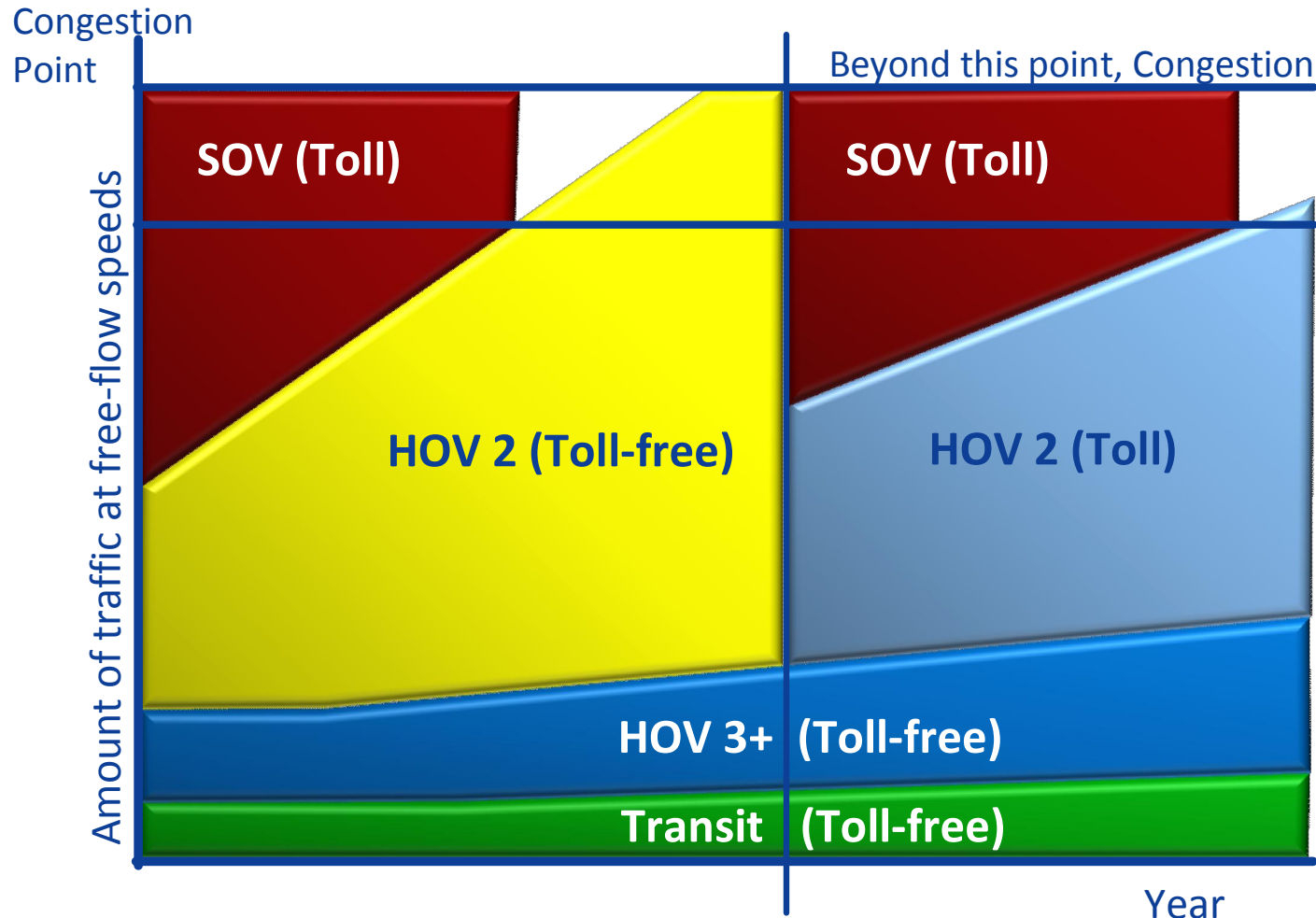


-Eisele, Ungemah, Goodin, and Swisher (TTI). "Life-Cycle Graphical Representation of Managed HOV Lane Evolution," 11th International HOV Conference, Seattle, Washington, October 2002.

-Figure from Robert J. Benz, from TTI, presentation at the FHWA HOT Lane Workshop, September 13, 2008, Minneapolis, MN.

# HOT Lane Performance

Operating scenarios of HOT lanes over time



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