



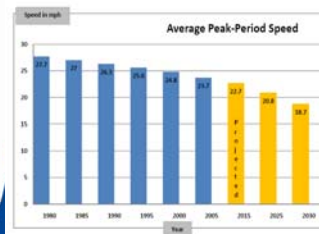
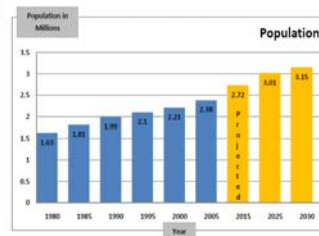
# Travel Choices and Strategies to Relieve Congestion

May 1<sup>st</sup> 2008



## What's the Problem?

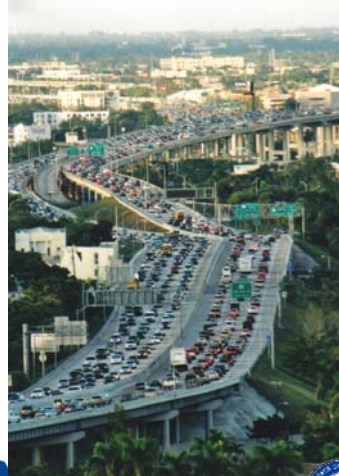
- South Florida has the 6<sup>th</sup> Worst Traffic Congestion in the Nation
- Population will Continue to Grow – by 2010 Florida will be the 3<sup>rd</sup> Most Populous State
- Traffic on I-95 will Grow to 360,000 by 2030
- Congestion wastes 150 million hours annually costing **\$2.5B**





## Existing Conditions

- South Florida Population 45% growth between 2000 and 2030
- Peak hour operations
  - General use average 13 to 16 mph
  - HOV average 20 to 31 mph
- 18% of Total Person-throughput on HOV Lane Results from Express Bus Service
- Demand for Bus Service is High but Travel Times are not Reliable



## The Solution

- Travel Demand Management
  - Reduce, combine or eliminate trips
  - Peak smoothing
  - Regulating flow
- Increase Occupancy
  - Carpools, Vanpools
  - Convenient and Reliable Transit
- Incident Management
  - Rapid Detection and Clearance
- Effective Enforcement

1-800-234-RIDE





## *The South Florida Approach*

- USDOT Urban Partnership Agreement for Express Lanes
- The 4 T's Required by the UPA
  - Tolling (Dynamically Priced ORT)
  - Transit (Bus Rapid Transit)
  - Technology (ITS)
  - Telecommuting/Travel Demand Management (TDM)
- Along With Other Complementary Strategies



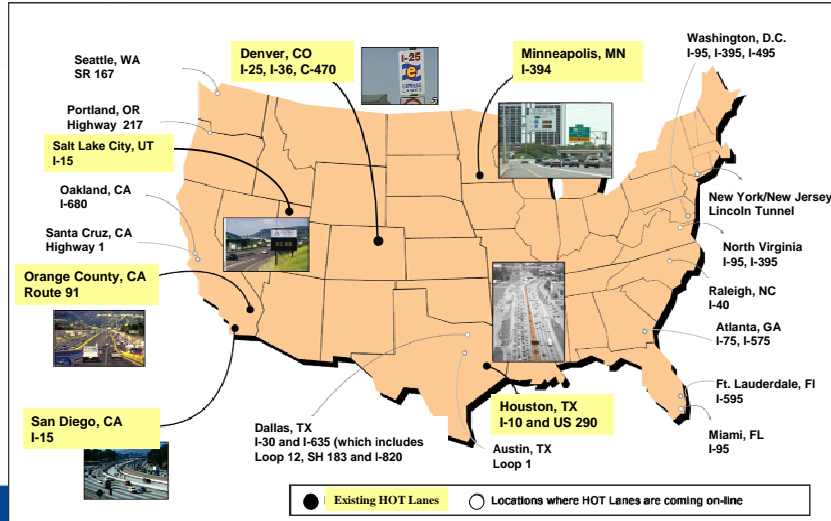
## *Express Lanes*

- What are They and Where Else are They Used?
  - Physically Separated with Controlled Points of Access
  - Fixed, Variable or Traffic Responsive Tolls to Manage Demand
  - Relieve Congestion
  - Optimize Use of Capacity
  - Improve Operating Speeds
  - Provide Incentive for Modal
  - Offer a Reliable Alternative





# Hot Lanes Across the US



# Project Scope

- 21 miles from Miami to Ft. Lauderdale
- HOT Conversion of 1 HOV Lane to 2 New Express Lanes
- Dynamically Priced Tolls
- Bus Rapid Transit
- Increased Effective Capacity with Minimal Construction Disruption



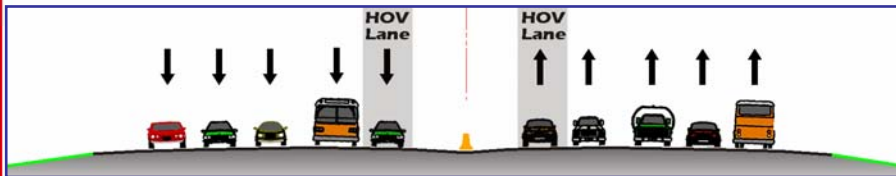


## Elements of Project Funding

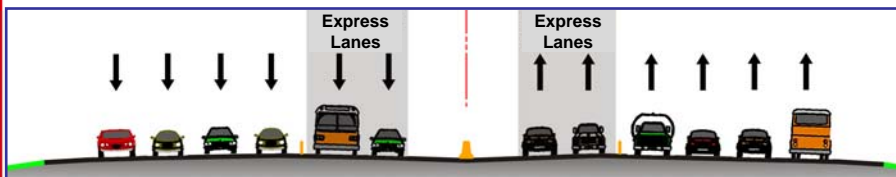
- Urban Partnership Agreement
  - \$43.4 Million for Highway
  - \$19.5 Million for Transit
- Florida Legislature
  - \$35 Million
- FDOT Work Program



## HOV-HOT Conversion with Capacity



Existing



Proposed





## Toll Exemptions

- ★ Registered Carpools with 3 or more occupants



- ★ Registered Vanpools



- ★ Registered Inherently Low Emission Vehicles (ILEV) or Hybrid Vehicles



Motorcycles

- ★ Public School Buses



- ★ Registered Over-the-Road-Buses (OTRB) (ie. Charter Buses)



- ★ Buses used by Miami-Dade Transit and Broward County Transit



## How Will it Work?

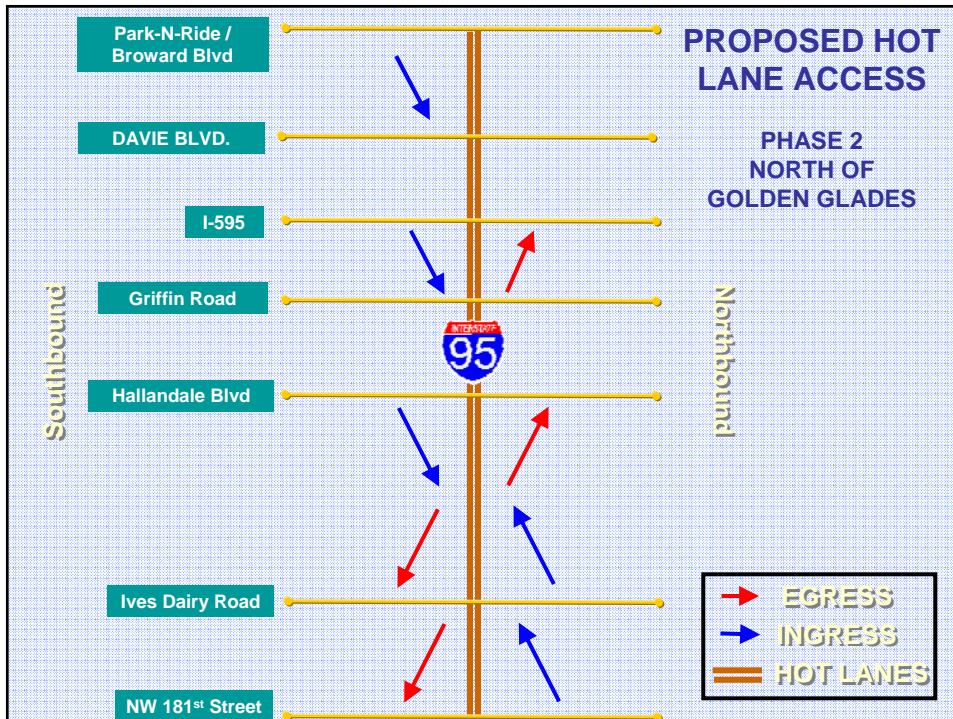
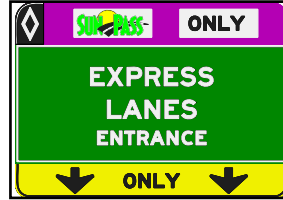
- Express Lanes Separated from Regular Lanes with Flexible Posts
- Ingress/Egress Designed to Reduce Conflicts and Improve Flow
- Toll Rate
  - Traffic Responsive Pricing
  - Based on Level of Congestion
  - Optimize Operating Speeds

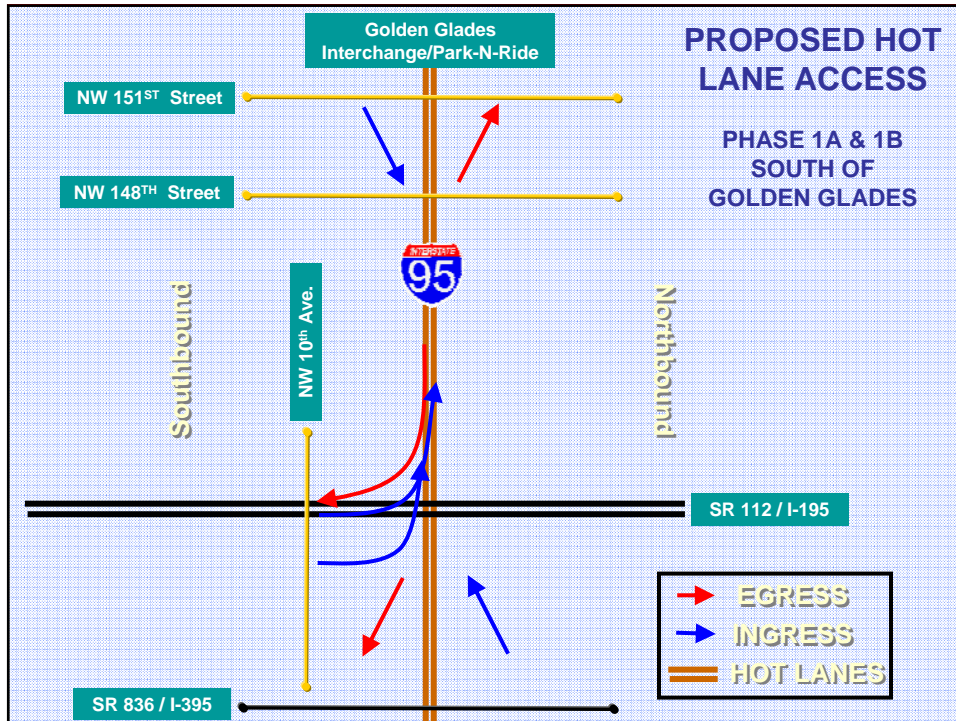




## How Will it Work?

- Toll Rate Displayed Prior to Entering Express Lanes
- Electronic Toll Collection Through SunPass Transponders
- Toll Exempt Users will be verified
- Heavy FHP Presence will Issue Citations to Violators
  - Vehicles without Transponders
  - Carpools and Vanpools with Less than the Required Occupancy
- No Trucks (2 or more axles)





**95 EXPRESS**

## What stays the same?

- I-95 will still consist of four lanes for general purpose traffic
- General purpose lanes will not be tolled
- No impacts to adjacent businesses or residents



## *What will change?*

- Additional options that offer more reliable travel
- Reduced lane widths and shoulder widths
- Better enforcement of HOV rules
- Access to Golden Glades Park-N-Ride



## *Enforcement Scenario*

- Vehicle passes under gantry, transponder detected
  - Toll charged, No electronic toll violation
- Vehicle passes under gantry, NO transponder detected
  - Non-payment light activated
  - Registered Vehicle, No electronic toll violation
    - Minimum occupancy Enforced by FHP
  - Non-Registered Vehicle, Electronic Toll Enforcement





## Bus Rapid Transit

- Eliminate County Line Transfer
- Expand or Extend Transit Service
  - Miami-Dade 95 Express Bus Service
  - Broward US 441 & University Drive with Bus Service into Miami-Dade
  - Additional Future Routes and Route Extensions
- New O&M Costs Offset by Tolls



## Express Lanes Network



- Regional
- Meet Needs of Commuter Trips
- Encourage Shift in Peak and Mode
- Complemented by New or Improved Transit Service
- I-595, I-75, Turnpike, Palmetto Expressway, Dolphin Expressway





## Implementation Schedule

- **Phase 1A**
  - Northbound from SR 112 to Golden Glades Interchange
  - Between 6/2008 and 9/2008
- **Phase 1B**
  - Southbound from Golden Glades Interchange to SR 112
  - Between 8/2009 and 11/2009
- **Phase 2**
  - Golden Glades Interchange to I-595
  - Between 12/2009 and 03/2010



## Project Support

- Miami-Dade & Broward County MPOs
- Miami-Dade & Broward County Transit
- Florida's Turnpike Enterprise
- Miami-Dade Expressway Authority
- South Florida Commuter Services





## Project Benefits

- 50% Travel Time Reduction in Express Lanes from Golden Glades Interchange to SR 112
- Transit Transfer Delay Eliminated at Golden Glades Interchange
- **Offers Benefits Traditional Widening Projects Cannot**
  - Encourages Ride-sharing
  - Provides Incentives for Transit Use
  - Implements Demand Management, thus Encouraging Travel During Non-peak Periods
  - Reduces or Eliminates Trips



## Complementary Strategies

- 511 Service Providing Highway and Transit Information Before You Go
- Increased Law Enforcement Presence
- More Road Ranger Service Patrols to Rapidly Clear Accidents and Open Lanes to Traffic
- Electronic Message Signs to Inform you of Conditions Ahead
- Ramp Signaling





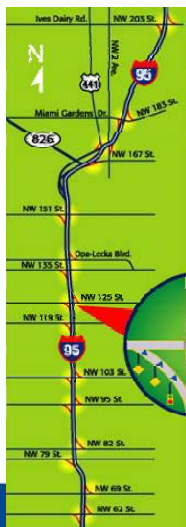
## Ramp Signaling

- Red/Green Signals at Selected On-Ramps
- Regulates the Rate Vehicles Merge onto the Expressway
- Benefits Include
  - Reduced Congestion and Travel Time
  - Maintain Consistent Traffic Flow
  - Improved Trip Predictability
  - Reduced Rear-end and Side-swipe Accidents



## Ramp Signal Locations

- 10 Northbound, 12 Southbound
  - NW 62 Street
  - NW 69 Street (NB)
  - NW 79 Street
  - NW 95 Street
  - NW 103 Street
  - NW 119 Street (SB)
  - NW 125 Street
  - NW 135 Street
  - Golden Glades Interchange
  - Miami Gardens Drive
  - Ives Dairy Road (SB)





## 95 EXPRESS

### A Multimodal Approach to Congestion Relief

- Better Alternative to Traditional Widening
- New and Better Travel Choices
- Improved Operations Through Travel Demand Management
- Reliability and Travel Time Savings



## Questions

