I-95/I-395 Transit/TDM Study

CTB Project Briefing

January 2008

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Study Background

- I-95/I-395 HOT Lanes Project is consistent with I-495 HOT Lanes Project in that it supports improved transit services and operations
- I-95/I-395 HOT Lanes project scope includes significant benefits for transit
  - 3,000 new park and ride spaces in the corridor
  - 33 new entry/exit ramp facilities
  - Lorton in-line Bus Rapid Transit station
  - 28 mile extension of the existing HOV lanes
- Transit/TDM Study conducted by DRPT with the project's Technical Advisory Committee to recommend investment strategy for $195 million being committed by private sector to transit ***above and beyond*** the HOT Lanes Project scope.

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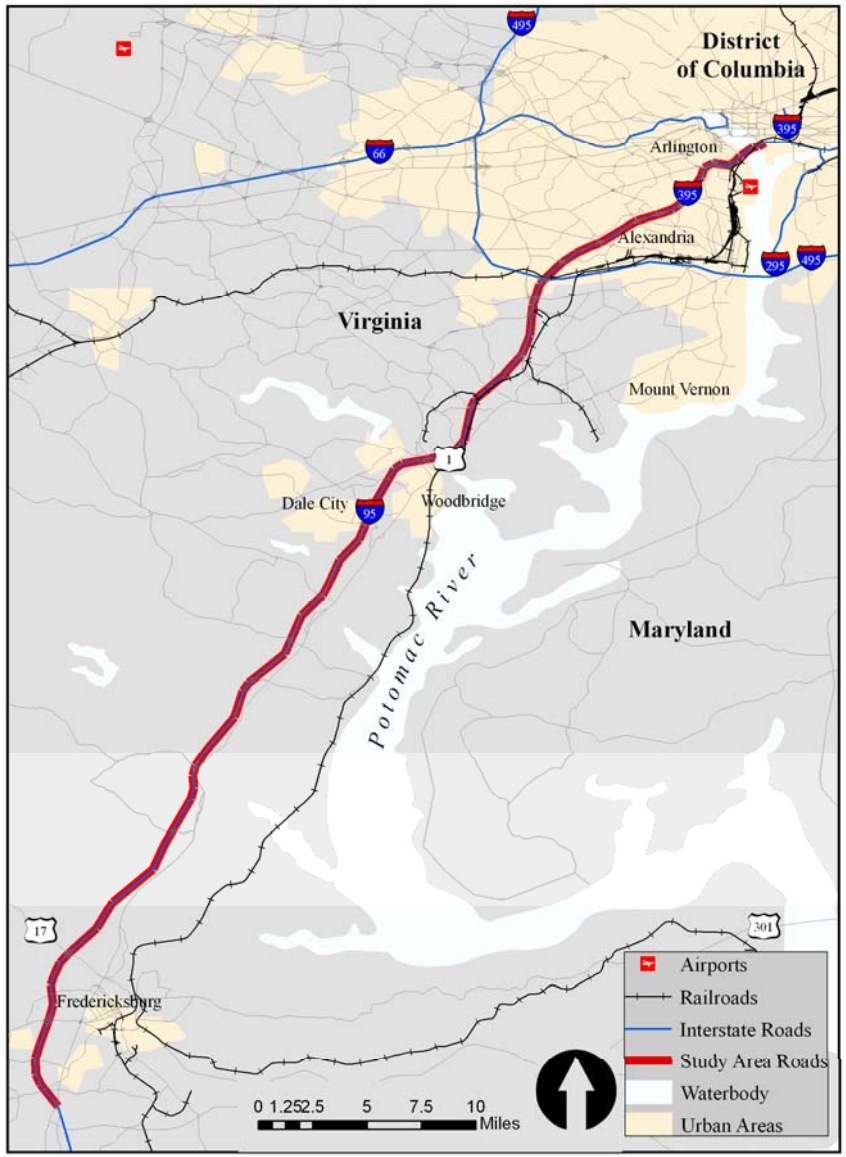
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Study Background

- Funding for improvements would come from a combination of HOT Lanes funding for Transit/TDM, farebox revenues, and Federal discretionary funds
- Revenue dedicated to Transit/TDM improvements is subject to final negotiation by VDOT and Fluor Transurban and ***allocation by the CTB***
- Study recommendation will be used to update the January 2008 MWCOG CLRP

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Study Corridor



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Goals of Transit/TDM Improvements

- **Goal 1** – Preserve transit and HOV ridership while implementing HOT lanes.
  - Implement improvements to help maintain current market share for transit, carpools and vanpools.
- **Goal 2** – Utilize new HOT lane features to attract new transit and HOV riders.
  - Use a corridor management approach to improve existing service and serve new markets.

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Existing Services in Corridor

- Existing Transit Services (Peak Hour/One Direction)

  Bus Service:
  - 90+ buses / hour operating in the northern portion of the corridor
  - 12 buses / hour operating in the southern portion of the corridor

  Rail Service:
  - 10 Metrorail trains / hour
  - 2 Virginia Railway Express trains / hour
  - 1 Amtrak train / hour

- Existing TDM Programs and Services
  - 500 Vanpools (10,000 daily passenger trips)
  - 21 Park-and-Ride Lots
  - 19 Slug Locations
  - 5 Rideshare/Employer Services Programs
  - VanStart/VanSave

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Tiered Transit/TDM Alternatives

- **Three Tiers Designated:**
  - Low: Approximately $250 million
  - Medium: Approximately $500 million
  - High: Unconstrained cost
- **Low Alternative ($250 million)**

100% increase in existing bus service, expanded VRE capacity

Definition - Baseline plus:

  - Bus service modifications (frequency, routes)
  - New Express Bus Routes
  - VRE service improvements (eight car trains in the peak, expand four station platforms)
  - Improved Shuttle Services, Transit Centers, Stations and Park-n-Ride Facilities
  - TDM Program Improvements (marketing, signage, carpool/vanpool incentives, rideshare operational support)
  - Park-n-Ride Improvements

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Tiered Transit/TDM Alternatives

- **Medium Alternative ($500 million)**

  145% increase in existing bus service, Bus Rapid Transit (BRT) system and 45% increase in VRE service

  Definition - Baseline and Low Alternative plus:

  - BRT System (including 5 in-line stations)
  - Increase VRE/Amtrak Fredericksburg Line trains from 14 to 20 trains and increase storage
  - Three new transit centers
  - TDM Improvements (vanpool/telework financial assistance, rideshare program operational support)
  - Park-n-Ride Improvements

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Tiered Transit/TDM Alternatives

- **High Alternative (unconstrained)**

  145% increase in existing bus service, 130% increase in VRE service and Metrorail extension

  Definition - Baseline, Low and Medium Alternatives plus:

  - Metrorail extension (Franconia-Springfield to Potomac Mills Mall)
  - Increase VRE/Amtrak Fredericksburg Line trains from 20-32 trains, 2 new stations and storage
  - New BRT Route
  - TDM Improvements (vanpool financial assistance, statewide Guaranteed Ride Home program, pilot facilitated rideshare
  - Park-n-Ride Improvements

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Snapshot of Baseline and Tiered Enhancements

at I-95 Cut-Line South of Springfield Area

Alternative	Bus	VRE	Metrorail
Existing	40/hour	14/day	---
CLRP	66/hour	14/day*	---
Low	82/hour	14/day** (+6 cars)	---
Medium	97/hour	20/day	---
High	98/hour	32/day	10/day***

* CLRP indicates a non-specific increase in service.

** Low alternative adds railcars but does not change number of trains.

*** Adds Metrorail service in the South.

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Key Findings from Travel Forecasting

- CLRP Baseline Alternative has significant service additions and is already a very strong performer
- Most difference among tested alternatives was in the competition among transit modes
- HOT lanes generally did not adversely impact transit or carpool mode share versus today
- The transit/TDM alternatives maintain high mode share in the corridor even with significant increases of travel in the corridor
- Many of the new proposed transit routes show strong ridership

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Key Findings from Market Research

- Awareness of HOT lanes is high. Nearly all sluggers (94%) are aware of the HOT lanes vs. 75% of SOV users.
- Sluggers are especially likely (71%) to believe that HOT lanes will discourage drivers from picking up sluggers.
- However, most transit and HOV commuters say they would not change their commute in any way when the HOT lanes are open and functional.
  - 53% of SOV
  - 81% of Carpoolers
  - 82% of Sluggers
  - 95% of Vanpoolers
  - 91% of Bus Riders
  - 86% of Train Riders
- Likelihood of using HOT lanes is highest among commuters from Spotsylvania, Stafford and Prince William
- 34% of SOVers say there is no park-and-ride lot located along their commute to catch express bus or there is a lot but it is usually full (12%). 24% say they don't know.
- Of those who do not have such a park-and-ride lot, 11% of SOVers say they would use one if it were available.

Refined Alternative

$230 million (Capital) / $417 million (Operating – 20 yrs)

- Carried forward strong performers and dropped elements that did not test well in the three tiered alternatives

- Strong performers included:
  - Service modifications to existing bus service
  - Selected new services
  - BRT concept
  - Transit centers and park-and-ride expansion

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Fiscally Constrained Alternative

Investment Strategy Objectives

- Prioritize and phase the proposed improvements from the Refined Alternative
  - Productivity and rapid impact
  - Ease of implementation
  - Long-term regional network effects
- Identify and leverage all reasonably available funding sources for the proposed improvements
- Protect and respect currently planned and programmed transit improvements and associated funding sources
- Identify services and facilities that require further design work

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Fiscally Constrained Alternative

Funding Assumptions

- Funding Assumptions:
  - $195 million HOT lanes lump sum
  - $40 million in Federal discretionary funding
  - $63 million in farebox recovery

  $298 million TOTAL
- Farebox recovery figure is derived from the actual services proposed
- Greater level of facility improvements in recommended program provides less revenue for operating than in original CLRP submission

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Fiscally-Constrained Alternative

Recommended Services/Facilities

$137 million (Capital) / $161 million (Operating – 20 yrs)

- Service Modifications
  - Bus frequency increases
  - Bus service extensions
  - Increase VRE train length to eight cars

- New Services
  - Shirlington to Rosslyn
  - Central Prince William to Downtown Alexandria
  - Kingstowne to Shirlington to Pentagon
  - Woodbridge to Lorton/Tyson's to Merrifield
  - Lake Ridge to Seminary Road Area
  - Fredericksburg to Pentagon/Crystal City
  - Fredericksburg to Washington, DC
  - Massaponax to Washington, DC
  - Lorton VRE Station to EPG/Ft. Belvoir (new shuttle)

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Fiscally-Constrained Alternative

Recommended Services/Facilities

- Facility Improvements
  - New and Improved Transit Centers:
    - Pentagon Metrorail station
    - Franconia-Springfield Metrorail station
    - Massaponax Transit Center
  - Five in-line BRT stations along HOT lane corridor
  - VRE Fredericksburg Line platform extensions at four stations
  - Increased overnight parking for VRE trains in Fredericksburg
  - Additional park-and-ride spaces and/or lots
- TDM Program Elements
  - Capital assistance for vanpools
  - Enhanced Guaranteed Ride Home program
  - Financial incentives for vanpools and carpools
  - Rideshare program operational support
  - TDM program marketing support
  - Telework program assistance

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Next Steps

- January - February 2008
  - Revise CLRP Submission
  - Final Report Issued
  - Advance necessary environmental and preliminary engineering work on Bus Rapid Transit

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