I-81 Rail Corridor
Project Update

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NS I-81 Crescent Corridor

Project Area
(Major Rail Choke Point)

Meridian Speedway
(Rail Corridor: Meridian to Dallas)

New Orleans

New York

NS I-81 Crescent Corridor Segment

Meridian

I-81

I-77

I-45

I-81

NS I-81 Crescent Corridor Segment

Interstate Highways

DRPT

I-81 Rail Improvements – Manassas to Front Royal

February 20, 2008
I-81 Corridor Highway Traffic
Projected Growth in Daily Truck Volume

- 66% increase from 2007 to 2020
- 157% increase from 2007 to 2035

Truck volume
I-81 Corridor Freight Rail Traffic
Projected Growth in Daily Volume

- 18% increase from 2007 to 2020
- 39% increase from 2020 to 2035

Freight rail volume
Strategy for Improvement

- Both highway and rail corridors need additional capacity to meet future demand

- Improvement strategies are underway to:
  - provide additional passenger and freight capacity for both modes
  - divert additional freight traffic to rail

- Funding constraints necessitate the phasing of improvements:
  - Short term highway improvements:
    - Final environmental impact study
    - Highway improvements (ramp extensions, truck climbing lanes, and bridges):
      - $72.7 million (underway)
      - $416 million (in SYIP)
  - Short term rail improvements:
    - I-81 Freight Rail Study
    - Manassas to Front Royal corridor improvements: $40 million
Previous Rail Study Results

- The Northeast–Southeast-Midwest Corridor Marketing Study (2003) [Reebie Associates]
  - Multi-state assessment of needs to divert freight from truck to rail
    - Long Term Capital Investment (Multi-State)
      - $7.3 billion to $7.9 billion ($1.35 billion for Virginia)
      - Truck Diversion on I-81 in VA: 28.2% to 30.3% of total trucks
    - Medium Term Capital Investment (Virginia only)
      - Cost: $492 million to $501 million for Virginia
      - Truck Diversion on I-81 in VA: 9.8% to 10.4% of total trucks

- Medium term capital rail investments (Virginia only) will provide capacity for 474,000 to 501,000 additional railcars per year

- Basis for $40M in I-81 rail improvements for the Manassas to Front Royal rail segment
I-81 Freight Rail Study

- Will determine the maximum feasible diversion of truck traffic to rail
- Conducted by the Commonwealth in cooperation with Norfolk Southern
  - extends at least 500 miles, including Tennessee, Pennsylvania and New York
  - includes analysis of roll on/roll off and other rail technologies
- Includes coordination with other states in the I-81 Corridor
- Timeframe: fall 2006 – spring 2008
Current I-81 Rail Corridor Project

- Project area conditions today:
  - The most congested portion of the rail corridor
  - Mainly one-way track
  - Limited opportunities for trains to pass each other through passing sidings
  - No signal system to control rail traffic
  - No commuter rail service in Gainesville/Haymarket area
February 20, 2008

I-81 Rail Improvements – Manassas to Front Royal

Project Location

- Marsh Run (Double Track Mainline Extension)
- Whitecut (Extend Rail Siding to 11,000 feet)
- Delaplane (New 11,000 foot Rail Siding)
- Gainesville (New 11,000 foot Rail Siding)
- Marshall (Allison Siding Extension to 11,000 feet)

PROJECT AREA (Major Rail Choke Point)
Project Description

- Four 11,000-foot rail sidings for passing trains
  - Gainesville: $6.2 million
  - Marshall: $5.3 million
  - Delaplane: $7.2 million
  - Whitecut: $12.2 million

- Rail traffic control system from Manassas to Front Royal (Riverton Junction): 50.9 miles, $18.5 million

- Marsh run extension: new mainline combined with existing siding at Front Royal (including new signal system): 5 miles, $11.6 million

- Provides potential capacity for VRE commuter rail expansion in the Gainesville/Haymarket area

- Project completion in late 2008
Project Benefits - Truck Diversion
Daily Rail Volumes Before and After Improvements

- 2007: 9.6% market share
- 2009: 10.9% market share

**Rail Traffic**
**Truckload Equivalents**
Project Benefits- Economic Impact

- **Project Costs**
  - Commonwealth REF = $40,000,000 (70%)
  - NS matching share = $17,142,857 (30%)
  - Project total = $57,142,857

- **Public Benefits (over 15 years)**
  - Benefit/cost ratio= 1.03
  - Project will pay for itself in 15 years
Additional Benefits

- **Fuel savings**
  - Average of 4 million gallons/year
  - More than 60 million gallons over a 15-year period

- **CO₂ emissions avoided**
  - Average of 10,100 tons/year (equivalent to 2,230 vehicles)
  - 151,800 tons over 15 years (equivalent to 33,500 vehicles)

- **Employment: 9 full-time new jobs**

- **Additional rail capacity:**
  - Allows the addition of 6-10 new trains and increases capacity of train service by 60% to 100%
  - Allows the potential for VRE commuter rail service expansion
## Project Schedule

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<tr>
<td>Planning, Design and Engineering</td>
<td>January 2008</td>
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<tr>
<td>Construction</td>
<td>February 2008</td>
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<td>Completion</td>
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- Project Schedule pending environmental approvals
This project eliminates a major rail chokepoint on the I-81 rail corridor and provides the potential capacity for VRE service expansion in the Gainesville/Haymarket area.

A first step and “down-payment” for corridor-wide rail improvements

- Multi-state improvements outlined in the Reebie study estimate significantly higher diversion of trucks to rail

Next steps will be identified in the I-81 Freight Rail Study this spring.