Tier 1 Draft Environmental Impact Statement

Interstate 66 – Outside the Beltway

U.S. Route 15 to I-495 - Prince William and Fairfax Counties

State Project No. 0066-96A-106, P101

Commonwealth Transportation Board Status Briefing

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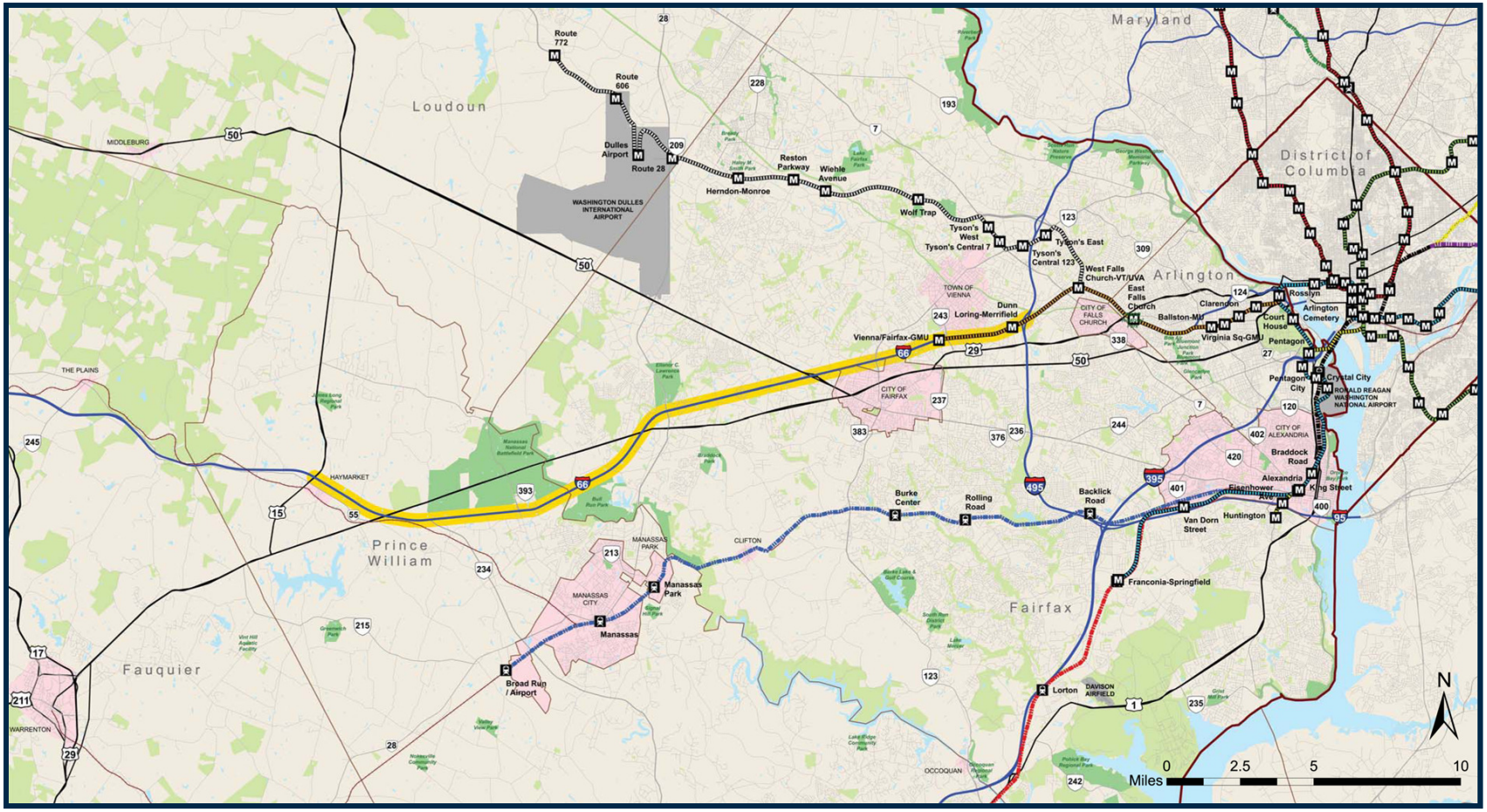
PROJECT CORRIDOR

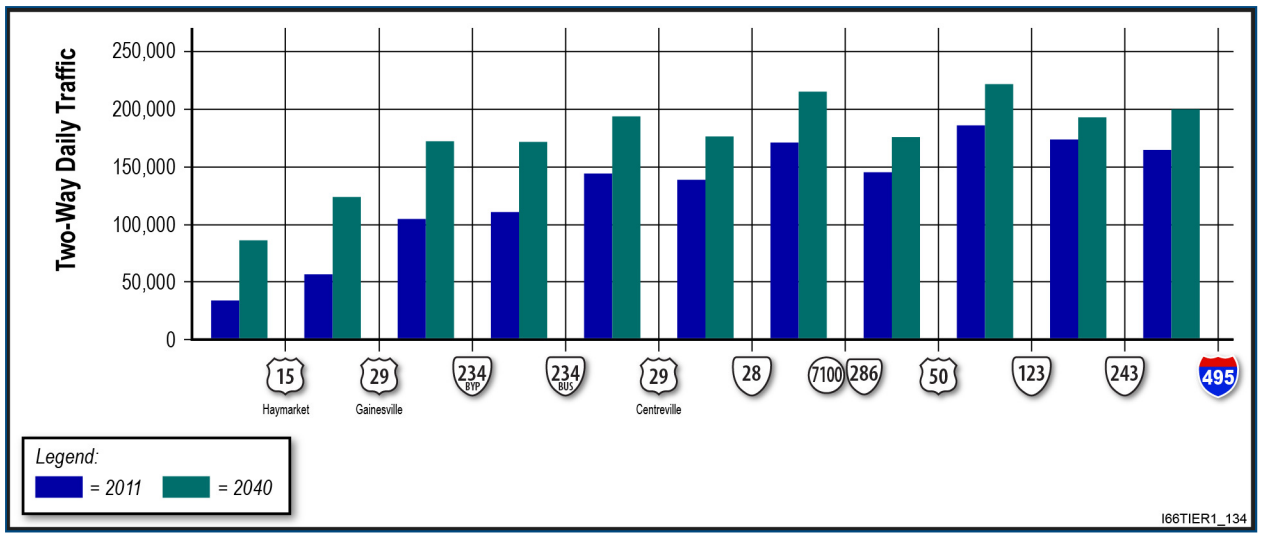


MULTIMODAL ELEMENTS OF CORRIDOR

- 25-mile interstate corridor extending from Route 15 in Prince William County to I-495 (Capital Beltway) in Fairfax County
- Metrorail Orange Line at eastern end of corridor
- Virginia Railway Express service (Manassas Line) to Broad Run (Manassas)
- Existing commuter and local bus throughout the corridor
- Peak hour HOV 2 lane from US 29 to I-495

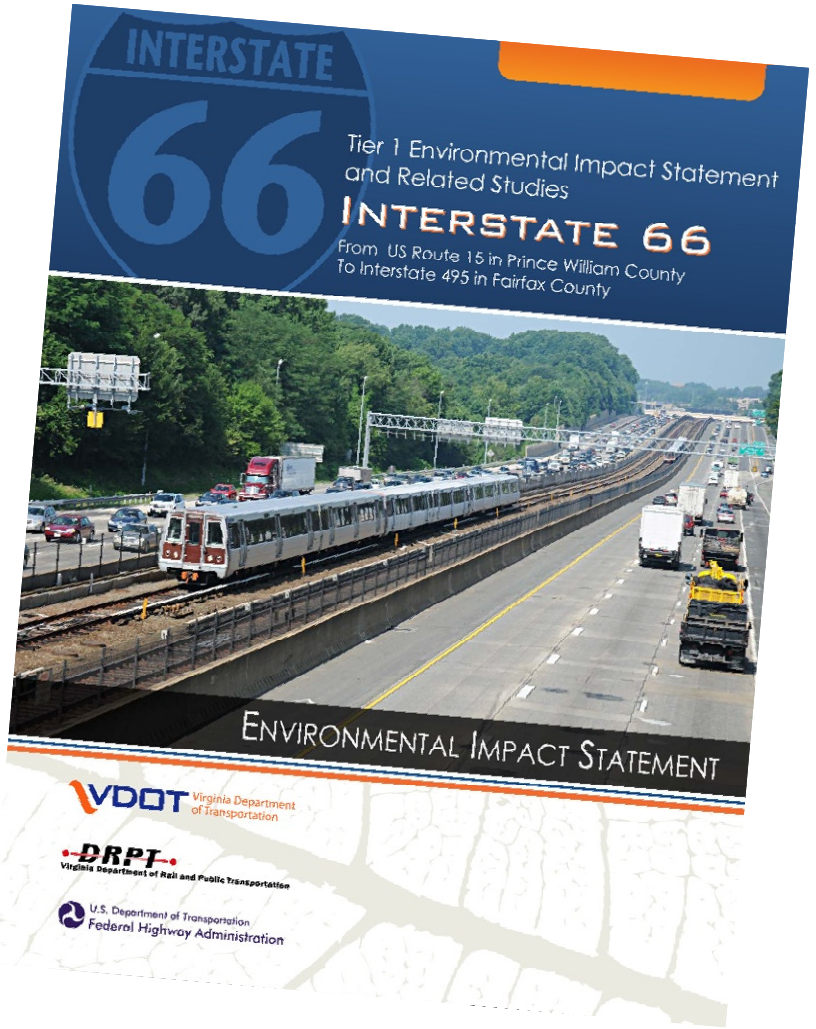
OVERVIEW OF CORRIDOR CONDITIONS

- Steady population growth
- Employment growth in activity centers
- Congestion and mobility demands
- Safety concerns



STUDY PROCESS / TIERING APPROACH

- **Tier 1 EIS focuses on broad issues**
  - Purpose and need
  - General location of proposed improvements
  - Mode / Technology choice
- **Tier 2 analysis will focus on site-specific details**
  - Impacts
  - Costs
  - Mitigation



THE BENEFITS OF A TIERED STUDY

- A tiered study allows focus on issues that are ripe for decision.
- Tiering allows for the integrated consideration of multimodal solutions to meet the purpose and need.
- After Tier 1, funding specific to each mode can be identified and each improvement concept can proceed on the project development path required by the lead transportation agency.
- A tiered study does not preclude implementation of interim improvements.
- A tiered study lays the groundwork for the second tier of studies that will focus on the specific details and effects of implementing the individual projects.

Need for Improvements

Existing and future capacity deficiencies:

Travel demands in the corridor, particularly during peak commuter periods, exceed the carrying capacity of both the corridor's roadway system and the current Metrorail Orange Line Service.

Points of congestion

Traffic operations are adversely affected by constraints (chokepoints) caused by capacity or geometric issues.

Limited mode choice

Service is primarily focused on serving commuter trips to and throughout the region's inner core employment areas.

Safety deficiencies

Geometric deficiencies along the I-66 mainline include short distances between interchanges which lead to high weaving volumes and absence of shoulders in some locations

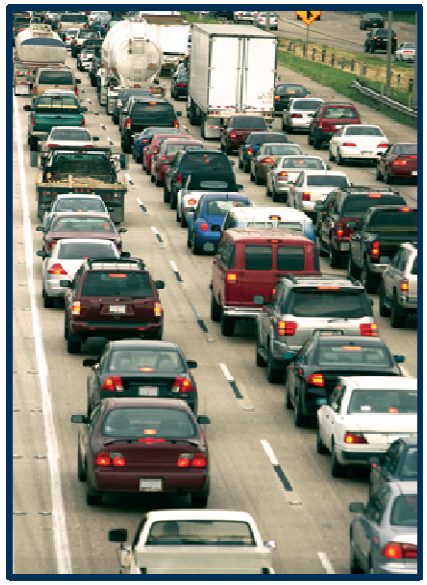
Unpredictable travel

Travelers experience highly unreliable travel times on I-66 particularly during peak periods.

PURPOSE AND NEED

Improve multimodal mobility along the I-66 corridor by providing diverse travel choices in a cost-effective manner.

Enhance transportation safety and travel reliability for the public along the I-66 corridor.



BUILD IMPROVEMENT CONCEPTS

- General Purpose Lanes
- Managed Lanes
- Metrorail Extension (heavy rail)
- Light Rail Transit
- Bus Rapid Transit
- VRE Extension (commuter rail)
- Improve Spot Locations/Chokepoints
- Intermodal Connectivity
- Safety Improvements
- Transportation Communication and Technology

KEY FINDINGS

Based on the concept analysis, it was determined that:

- **Fully meeting demand may not be possible given the constraints within the corridor.**
- **A major factor in the decision is space efficiency – the ability to carry large numbers of persons within limited spaces.**
- **The No-Build concept does not satisfy the purpose and need.**
- **None of the Build Improvement Concepts, as stand-alone concepts, fully satisfy the purpose and need.**
- **Multimodal solutions would be most effective in addressing transportation needs in the corridor.**

Therefore, all 10 Build Improvement Concepts, as well as the No-Build, were evaluated in the Tier 1 Draft EIS.

POTENTIAL IMPROVEMENT CONCEPT SCENARIOS

SCENARIO	NAME		SCENARIO	NAME		SCENARIO	NAME
0	No-Build		16	ML1 + BRT		32	GP + ML2 + VRE
1	GP Only		17	ML1 + VRE		33	GP + Metrorail + VRE
2	ML1 Only		18	ML2 + Metrorail		34	ML1 + Metrorail + VRE
3	ML2 Only		19	ML2 + LRT		35	ML2 + Metrorail + VRE
4	Metrorail Only		20	ML2 + BRT		36	GP + LRT + VRE
5	LRT Only		21	ML2 + VRE		37	ML1 + LRT + VRE
6	BRT Only		22	Metrorail + VRE		38	ML2 + LRT + VRE
7	VRE Only		23	LRT + VRE		39	GP + BRT + VRE
8	GP + ML1		24	BRT + VRE		40	ML1 + BRT + VRE
9	GP + ML2		25	GP + ML1 + Metrorail		41	ML2 + BRT + VRE
10	GP + Metrorail		26	GP + ML1 + LRT		42	GP + ML1 + Metrorail + VRE
11	GP + LRT		27	GP + ML1 + BRT		43	GP + ML1 + LRT + VRE
12	GP + BRT		28	GP + ML1 + VRE		44	GP + ML1 + BRT + VRE
13	GP + VRE		29	GP + ML2 + Metrorail		45	GP + ML2 + Metrorail + VRE
14	ML1 + Metrorail		30	GP + ML2 + LRT		46	GP + ML2 + LRT + VRE
15	ML1 + LRT		31	GP + ML2 + BRT		47	GP + ML2 + BRT + VRE

Additional Details in Table 3-4

ASSESSMENT OF CAPACITY IMPROVEMENT CONCEPT SCENARIOS

Accommodate Total Demand

- #29: GP(2) + ML2 + Metrorail
- #35: ML2 + Metrorail + VRE
- #18: ML2 + Metrorail
- #31: GP(4) + ML2 + BRT
- #47: GP(4) + ML2 + BRT + VRE

Reduce SOV Share/Support TDM

- #18: ML2 + Metrorail
- #29: GP(2) + ML2 + Metrorail
- #35: ML2 + Metrorail + VRE
- #31: GP(4) + ML2 + BRT
- #47: GP(4) + ML2 + BRT + VRE

Enhance Modal Choices

- #18: ML2 + Metrorail
- #29: GP(2) + ML2 + Metrorail
- #35: ML2 + Metrorail +VRE
- #20: ML2 + BRT
- #31: GP(4) + ML2 + BRT

Space Efficiency

- #18: ML2 + Metrorail
- #35: ML2 + Metrorail +VRE
- #29: GP(2) + ML2 + Metrorail
- #3 ML2 Only
- #21 ML2 + VRE

Additional Details in Draft EIS Table 3-4

HIGHEST PERFORMING CAPACITY IMPROVEMENT CONCEPT SCENARIOS

Capacity Improvement Concept Scenario	Ability to Accommodate Total Demand	Ability to Enhance Modal Choices	Ability to Reduce SOV Share & Support TDM	Space Efficiency	Cost per Incremental Person Trip Accommodated
18. ML2+ Metrorail	1.09	0.69	0.81	0.89	$4,800
29. GP2+ML2+ Metrorail	1.11	0.69	0.81	0.87	$4,900
31. GP4+ML2+ BRT	1.08	0.59	0.74	0.71	$3,600
35. ML2+ Metrorail+VRE	1.10	0.69	0.81	0.89	$4,800
47. GP4+ML2+ BRT+VRE	1.08	0.59	0.74	0.71	$3,700

"Highest performing" = top ten ranking (shaded in yellow) for all 4 P&N elements OR at least 3 P&N elements AND lowest cost

IMPACT TEMPLATES

The 10 improvement concepts were grouped into four categories ("templates") based on space requirements for implementation:

TEMPLATE	FOOTPRINT WIDTH	DESCRIPTION
Median	235 feet	Space within the median would be used by Metrorail, Light Rail Transit, or Bus Rapid Transit.
Outside		Space to the outside of existing highway would be used for either General Purpose Lanes or Managed Lanes. Widths for three possibilities of Outside widening are considered as part of the impact analysis.
Add one lane in each direction (either general purpose or managed lane)[1]	270 feet	
Add two lanes in each direction (either general purpose or managed lanes)[2]	295 feet	
Add 5 lanes in each direction (general purpose lanes)[3]	355 feet	
Interchange	Existing footprint plus 100 feet	Improvements at Spot Locations/Chokepoints would require space within or immediately adjacent to the existing interchange.
VRE	100 feet	Requirements for rights-of-way for the VRE Extension would be located off of I-66. *Shown as separate VRE Extension Corridor.*

Note: The Outside templates are indicated as: [1] *Outside (Minimum)*; [2] *Outside (Medium);* [3] *Outside (Maximum)* *in following tables.*

The Safety Improvements, Intermodal Connectivity, and Transportation Communication and Technology Improvement Concepts are anticipated to have limited need for additional rights-of-way, and are therefore not included in the above table.

SELECTED ENVIRONMENTAL IMPACTS

RESOURCE	MEDIAN	OUTSIDE MINIMUM	OUTSIDE MEDIUM	OUTSIDE MAXIMUM	INTERCHANGE	VRE
Approximate template width:	*235 feet*	*270 feet*	*295 feet*	*355 feet*	*Existing plus 100 feet*	*100 feet*
Wetlands[5] *(acres)*	3.6	6.8	9.6	17.4	9.4	7.2
Streams *(feet)*	5,172	6,354	7,636	9,703	5,634	1,048
Floodplains *(acres)*	22.0	28.3	33.2	45.4	15.4	13.5
Residential Relocations	0	1	4	36	14	1
Water Quality	The I-66 corridor crosses four impaired water bodies. The Build Concepts have the potential to increase stormwater runoff to these impaired water bodies, and other water resources in the study area.					
Coastal Zone Management Areas	The entire study area is located within the coastal zone. The Build Improvement Concepts would be consistent with the established Virginia Coastal Zone Enforceable Policies, and with implementation of proposed mitigation measures, the Build Concepts would not impair resources protected by the Virginia Coastal Zone Enforceable Policies, including wetlands, dunes, and aquatic animals.					
Wild and Scenic Rivers	There are no designated wild and scenic rivers located within the study area. One stream is listed at a potential component of the state Scenic River Inventory; however, as the proposed crossing of the river would be at the existing crossing location, the scenic nature of the river will not be altered.					
Wildlife Habitat	No large habitat areas would be impacted nor would any wildlife corridors be further disrupted since impacts would take place along existing facilities. Therefore, the Build Improvement Concepts would have minimal effect on wildlife habitat.					
Threatened and Endangered Species	The Build Concepts would not affect any known locations of threatened or endangered species. Potential habitat may exist for two federally listed plants and one-federally listed mollusk, and suitable habitat may occur for two additional state-listed species.					
Invasive Species	While highway right-of-way is vulnerable to colonization by invasive plant species from adjacent properties, implementation of the provisions in accordance with VDOT's Road and Bridge Specifications would reduce the potential for the establishment and proliferation of invasive species within the study area.					

5: Includes wetland types: Palustrine Forested; Palustrine Scrub Shrub; and Palustrine Emergent.
6: Acreage includes potential impacts to five natural heritage locations within the study area.

PUBLIC & AGENCY COORDINATION

- Agency Coordination Plan with Prescribed Collaboration Points and Meeting Schedules
- 17 Cooperating and Participating Agencies; 42 Agencies Participated in Project Scoping Process
- Citizen Information Meetings
- Public Hearings
- Newsletters
- E-mail Blasts
- Website: www.helpfix66.com
- On-line Digital Survey Form

PUBLIC HEARING SUMMARY

- **Two Public Hearings**
  - March 13 & 14, 2013
- **Over 90 Attended and 30 Comments Received**
- **56 Additional Comments Received During Comment Period**
  - 45 Day Comment Period Ended on April 8, 2013
- **100% of Respondents Acknowledged Need for Improvements**
- **Top 3 Concepts Favored:**
  1. General Purpose Lanes
  2. Managed Lanes
  3. MetroRail Extension
- **Least Favored Concept:**
  1. No-Build

FEDERAL AND STATE AGENCY COMMENTS

FEDERAL AGENCIES

- Federal Transit Administration (forthcoming)
- US Army Corps of Engineers
- US Department of Interior
- US Environmental Protection Agency

VIRGINIA AGENCIES

- Department of Conservation and Recreation
- Department of Heath
- Department of Environmental Quality
- Marine Resources Commission
- Outdoors Foundation
- Virginia Railway Express

REGIONAL AND LOCAL AGENCY COMMENTS

REGIONAL

- Northern Virginia Transportation Authority
- Northern Virginia Regional Park Authority
- Washington Metropolitan Area Transit Authority

LOCAL AGENCIES

- City of Fairfax
- City of Manassas
- County of Fairfax
- Prince William County
- Virginia Railway Express

INTEREST GROUPS

- Coalition for Smarter Growth
- Northern Virginia Transportation Alliance
- Sierra Club

DECISIONS AT COMPLETION OF TIER 1

Decisions documented in Memorandum of Agreement between FHWA, FTA, VDOT and DRPT

- Improvement Concepts to be advanced
- General location for studying future highway and transit improvements in the Tier 2 NEPA document(s)
- Identification of projects with independent utility to be evaluated in Tier 2 NEPA document(s) and evaluated pursuant to other environmental laws
- Advancing tolling for subsequent study in Tier 2 NEPA document(s)

NEXT STEPS

- CTB Action in May 2013 on Concepts to advance in Final EIS
- Development/Issuance of Final EIS

Following FHWA's issuance of a ROD …

- Projects identified/prioritized (related to the EIS purpose & need)
- Tier 2 documents initiated as required
  - Information from Tier 1 utilized
  - Analysis focuses on site specific details