

VRE-MARC RUN-THROUGH SERVICE

Market Assessment and Technical Considerations

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COG Board of Directors
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Potential benefits of run-through service

1. Improve access to better jobs and education opportunities for residents
2. Expand the employee pool available to employers
3. Reduce peak congestion on highways and Metrorail (esp. at Union Station)
4. Add a travel option on an existing right-of-way and improve reliability and resiliency of all systems
5. Improve reliability and convenience for longer commutes, especially existing commuter rail riders
6. Reduce midday train storage demand at Union Station



Image source: VRE System Plan 2040



Project Objectives

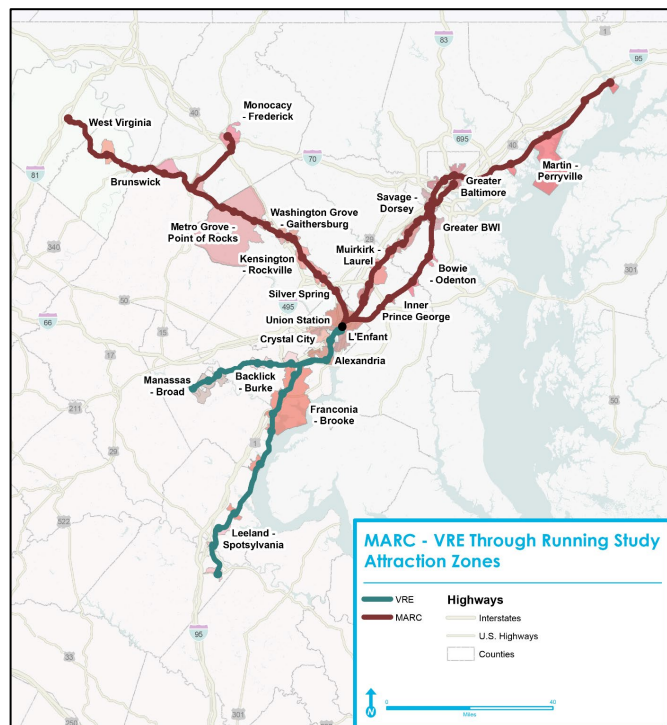
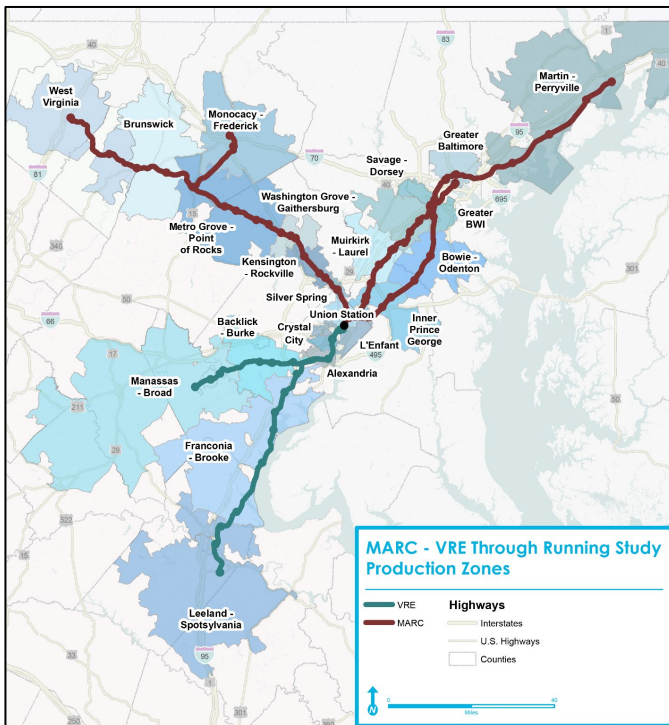
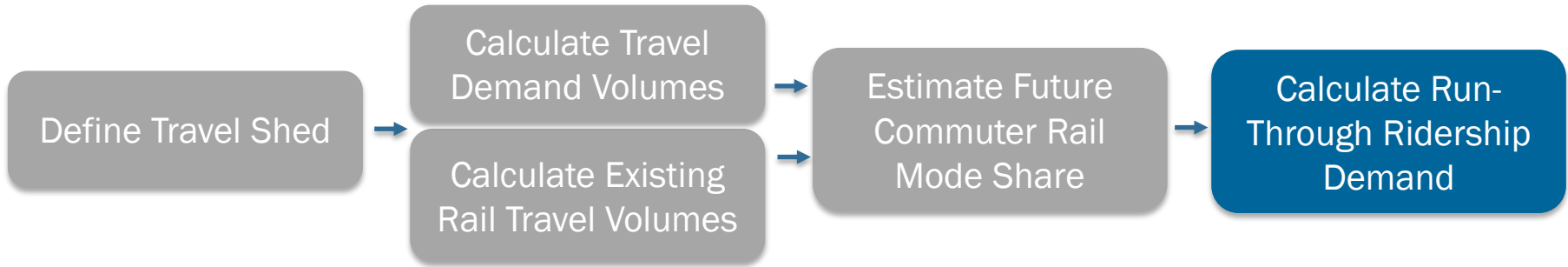
Understand the market potential for run-through service for both MARC and VRE by developing order of magnitude ridership estimates and inform next steps for future detailed analysis as appropriate.

Three key objectives:

1. Identify the potential market area for through service
2. Identify the potential ridership of through service
3. Acknowledge some of the critical elements for consideration when planning for run-through service



Methodology Overview



Travel Demand Results

Observed Data: Travel Sheds

- 4.9 million people in Production Zones
- 1.4 million jobs in Attraction Zones

Observed Data: Existing Run-Through Equivalent Trips

- Trips on MARC or VRE that cross between each railroads service area.
Example: Penn Station to Union Station on MARC; and then Union Station to Pentagon City on Metrorail.
- 13,900 weekday trips (~27 percent of weekday ridership).

Forecast: Run-Through Market on All Modes

- Total daily volume of trips between Production and Attraction (PA) Zones within the MARC and VRE service areas.
- 440,000 weekday trips in 2030 and 476,000 in 2040.

Forecast: Run-Through Rail Ridership

- Estimated ridership on run-through service in 2030 and 2040 model years.
- 16,200 weekday trips by 2030
- 17,500 weekday trips by 2040



Conclusion: There is a market for run-through service

The data suggests:

- There is demand for run-through service between Baltimore and Alexandria as well as between Frederick and Alexandria.
- The top trip attractor for run-through trips is L'Enfant, followed by Alexandria, Crystal City, Silver Spring and Rockville.

Since the preliminary assessment identified a market for run-through service, a detailed demand study should be undertaken to more clearly define, quantify, and understand the nature and potential for commuter rail run-through service in the region.

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Metropolitan Washington
Council of Governments

Capital Region Rail Vision

MWCOG Board of Directors

October 14, 2020



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RAIL VISION PURPOSE, NEED AND APPROACH

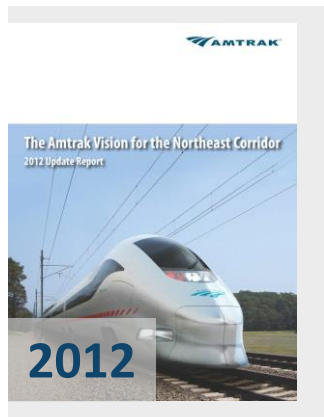
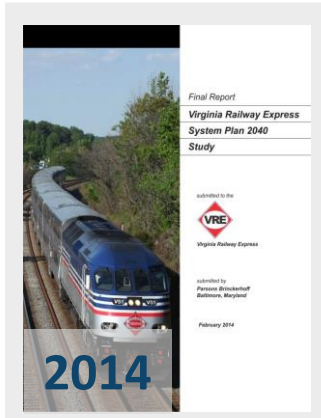
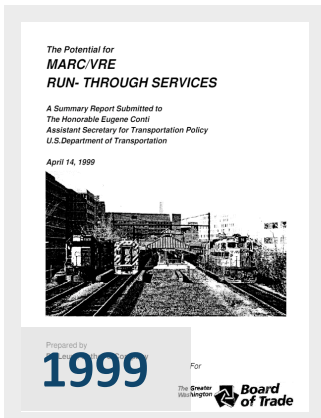




STUDIES TO DATE

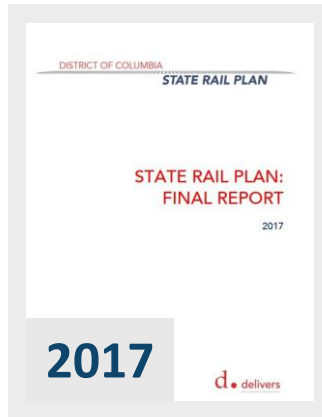
The regional rail discussion has a long history. For almost a half-century¹, numerous plans and studies have planned for greatly enhanced service on all lines and discussed the potential for run-through service in the Capital Region, particularly between Maryland’s MARC and Virginia’s VRE systems.

The below represent only a sample of all studies and plans:



“The run-through market could be as many as **100,000 weekday trips by 2040**, depending on the services provided, a third of which could be work-related.

Extension of VRE trains into MARC territory or vice versa could attract a share of these trips.”



“The potential benefits to run-through service include :

- **Direct, one-seat ride to employment centers** in Northern Virginia from Maryland
- **Alleviate congestion** on the Red Line at Union Station
- Provide **direct access to the L’Enfant Plaza** rail hub
- Potential increase in **mid-day storage capacity**”



¹ The Washington Metropolitan Area Rail Commuter Feasibility Study (May 1971) first referenced run-through service.



THE CASE FOR AN INTEGRATED RAIL NETWORK

Why discuss an integrated rail network now? 2020 is an opportune moment to make tangible progress towards a regional network for several reasons:



Planned alleviation of several **critical infrastructure constraints**

Long Bridge Expansion – Additional capacity for passenger rail at the new Long Bridge crossing will ameliorate the service bottleneck at the Potomac crossing, a major step towards MD/VA run-through service

Transforming Rail in Virginia agreement – In addition to the Long Bridge expansion, this agreement will bring significantly expanded passenger rail capacity across Northern Virginia

Washington Union Station and B&P Expansion – Track and platform improvements at Union Station can allow for more regional trains to run through the station, rather than requiring transfers from stub-end tracks, and with B&P expansion more trains can connect to Baltimore



Continuing **business and equity cases**

New regional destinations – Expansion of employment centers (most notably Amazon’s planned H2Q in Crystal City) as well as growing transit-oriented nodes throughout the region have created new drivers for regional transportation demand

Congestion relief – Addressing intense congestion facing commuters and other travelers in the Capital Region remains a regional priority

Equitable access to opportunity – Proactive inclusion of all of the region’s communities remains a critical need



Momentum of the regional conversation

Political momentum – Legislative bodies in both Maryland and Virginia have considered bills related that would support run-through service

Ongoing analysis – MARC & VRE plan for greatly enhanced service, Metropolitan Washington Council of Governments is completing a *MARC-VRE Through-Service Study* in summer 2020

An integrated rail network for the Capital Region has been discussed for decades – but the current moment is a unique window of opportunity. Action now can keep a “critical path” to future integration open.



WORKING PROBLEM STATEMENT

Without improved integration of the regional rail network, the Capital Region will not reach its full potential and will continue to face several challenges:



Fragmented rider experience

- Unwieldy, multi-step **cross-system rider experience** with transfer required at Union Station
- **Additional cost** of inter-system transfers
- Several **pain points** for current riders (no-reverse peak/weekend service, different fare/pass systems, planning burden, missed connections)
- **Latent potential ridership** unrealized due to sub-par rider experience



Lower revenues & operational inefficiencies

- **Limited ridership pools** due to fewer conveniently reachable destinations
- **Cap on potential farebox revenue** due to limited ridership pool growth
- **Cost-saving operational efficiencies** unrealized (i.e. shared storage, joint procurement)
- **Additional planned infrastructure capacity** may not be efficiently allocated



Missed opportunities for regional growth

- Lack of regional access to **affordable housing** and limited connections to **employment centers**
- **Inequitable access to economic opportunity** for underserved areas
- **Congested regional transportation network**
- **Constraint on long-term regional growth** due to limited connectivity between cross-border origins and destinations



SCOPE OF ANALYSIS FOR VISION/TECHNICAL DELIVERABLES

	Economic Analysis	Financial Analysis	Technical Analysis
Phase I: Vision Report (Before EOY)	High-level benefits analysis	High-level presentation of capital and operating costs , and efficiency savings	High-level technical analysis of proposed vision scope, incl. all existing long-range rail plans
	High-level estimate of ridership given improved connectivity / increased frequency of service		Identification of key missing links as well as key barriers to implementation
Phase II: Technical Report (Q1 2021)			Identification of reasonable capital improvements schedule
	Ridership analysis based on price points, timing and extent of implementation, scheduling enhancements, interoperability scenarios, etc.	Granular capital cost estimates and construction cost timeline	In-depth technical analysis of proposed vision scope
	Congestion relief impact estimate	Refined revenue estimates based on updated projected ridership	Identification of key changes relative to business-as-usual planning projections
	Regional economic impact analysis	Refined operating cost estimates based on technical analysis, including estimated economies of scale or operational efficiency savings	Identification of key decision points along the “critical path” for technical implementation
		Analysis of potential funding and financing sources	Estimate feasible system capacity for increased frequency of service



ADVISORY COMMITTEE MEMBERS

Amazon	Brian Kenner	Metropolitan Washington Council of Governments	Chuck Bean
Baltimore Metropolitan Council	Don Halligan	Maryland General Assembly	Hon. Jared Solomon
Brotherhood of Locomotive Engineers and Trainmen	Herbert Harris Jr.	Northern Virginia Chamber of Commerce	Clayton Medford
BWI Business Partnership	Gina Stewart	Northern Virginia Transportation Authority	Monica Backmon
City of Alexandria	Hon. Elizabeth Bennett-Parker	Northern Virginia Transportation Commission	Kate Mattice
Coalition for Smarter Growth	Stewart Schwartz	Potomac and Rappahannock Transportation Commission	Bob Schneider
Federal City Council	Maura Brophy	Prince George's County	Hon. Dannielle Glaros
Greater Baltimore Committee	Don Fry	Virginians for High Speed Rail	Danny Plaughter
Greater Washington Board of Trade	Jack McDougle	Virginia Passenger Rail Authority	Hon. Sharon Bulova
JBG SMITH	Jay Corbalis	Washington Union Station Redevelopment Corporation	Beverley Swaim-Staley
Johns Hopkins University	Kylie Patterson	WMATA	Allison Davis



TECHNICAL COMMITTEE MEMBERS & PROJECT TEAMS

Technical Committee

Amtrak	Jeffrey Ensor <i>Sen. Director of Portfolio Management - NEC South End</i>	
District Department of Transportation (DDOT)	Jeffrey Bennett <i>Associate Director, Transit Delivery Division</i>	
Virginia Department of Rail and Public Transportation (DRPT)	Jennifer Mitchell <i>Director</i>	Michael McLaughlin <i>Chief of Rail Transportation</i>
	Katherine Youngbluth <i>Manager of Rail Projects in Northern VA</i>	
Maryland Transit Administration (MTA) / Maryland Area Regional Commuter (MARC)	Dean Del Peschio <i>Director - MARC Train Service</i>	Jade Clayton <i>Senior Planner and Project Manager</i>
Virginia Railway Express (VRE)	Rich Dalton <i>CEO</i>	

Project Team

EY	VHB	WSP
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OPPORTUNITY



IMPLEMENTATION HAS GREAT BENEFIT TO REGION'S RESIDENTS, COMMUNITIES

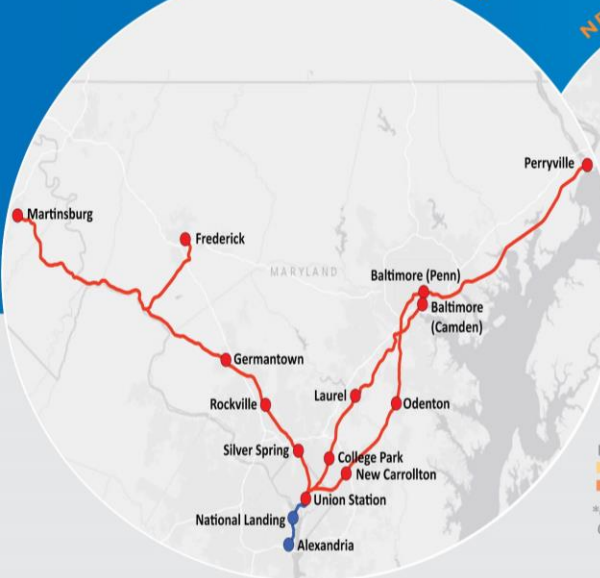


MARC-VRE THROUGH-RUNNING

CONNECTING TO OPPORTUNITY

Connecting commuter rail between Maryland and Northern Virginia would increase economic opportunity throughout the DC region by expanding access to a diverse, educated workforce, well-paid jobs and moderately priced housing. "Through-running" service would provide commuters on both sides of the river a fast and convenient one-seat ride for the first time.

MAP OF POTENTIAL SERVICE



NEW MARKETS OPENED WITH THROUGH-RUNNING*

KEY:

- Within 60 minutes by transit to National Landing in AM peak, without through-running
- Within 60 minutes by transit to National Landing in AM peak, with through-running

*Using GTFS data, commuting time is determined by current and modeled transit schedules. One hour refers to the transit plus walking time to reach a destination.

BENEFITS OF THROUGH-RUNNING



JOB ACCESS

For job-seekers...direct access to **25,000+ new jobs** in National Landing, L'Enfant Plaza, and Alexandria.



ACCESS TO QUALITY, DIVERSE TALENT

For employers...an additional **765,000 people** within commuting distance, of whom: **38% are college-educated, and 59% are people of color**



HOUSING ACCESS

For employees...access to an additional **97,000 moderately priced homes** within commuting distance.

Estimates based on GIS analysis using US Census Bureau data. Results assume all three MARC lines serve L'Enfant, Crystal City, and Alexandria stations.





NEXT STEPS





PUBLIC LAUNCH OF RAIL VISION

Launched Rail Vision on September 1, 2020 and have received positive feedback from area stakeholders

[Press Release](#), September 1, 2020

Region’s Leaders Coming Together to Establish Pioneering Capital Region Rail Vision Aimed at Creating a More Unified, Competitive, and Modern Rail Network

Supporting quotes from JBG SMITH CEO Matt Kelly, Maryland Delegate Jared Solomon, DRPT Director Jennifer Mitchell

[Washington Post](#), By Luz Lazo, September 1, 2020

Regional business group kicks off effort to unify the greater Washington region’s passenger rail network

[Virginia Mercury](#), Wyatt Gordon, September 14, 2020

Long Bridge rail project barrels forward full speed ahead

“The potential ridership is there. The technical challenges are relatively minor. The biggest issue is having slots available to cross the Long Bridge. Having Maryland trains access Virginia stations and vice versa would be a game changer for NoVA and the entire D.C. region.” – DRPT Director Jennifer Mitchell



NEXT STEPS FOR COMMITTEE PARTICIPANTS

1. **Capital Region Rail Vision – *Release expected before EOY***

2. **Technical Report – *Release expected in Q1 2021***
 - Intend to host work sessions November – January with Advisory and Technical Committee Members, and Key Stakeholders to align on technical strategies and phasing schedules to overcome barriers to implementation of the Vision and expand on economic and community benefits



THANK YOU



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