

VTrans:
Virginia's Statewide Multimodal Transportation Plan

Kick-off: VTrans Update

Southwest VA MPO/PDC Meeting
Tuesday, December 4, 2018

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OUTLINE

- What is VTrans?
- Review of VTrans2040
- Kick-off of VTrans Update
 - Major components
 - Key modifications from VTrans2040
 - Expected outcomes
 - Tentative timeline
- Stakeholder Involvement





WHAT IS VTRANS?

- *VTrans* is Virginia's Multimodal Transportation Plan
 - Provides a backdrop for consistent and coordinated performance-based transportation planning between federal, state, regional, and local agencies.
 - Performance-based, multimodal, long-range plan that is coordinated with MPO's and other stakeholders.
 - Includes a Needs Assessment
 - Updated at least every four years
 - *VTrans* has a statewide perspective and is not a compilation of local or regional plans



WHAT IS VTRANS?

Sample of Federal Requirements ([23 U.S.C § 135](#))

- Have a minimum **20-year** forecast period
- Be **multimodal**
- Include **coordination with MPO's and other regional organizations**
- Take consideration of USDOT's **ten planning factors**
- Use a **performance-based approach** (including the use of performance targets)



WHAT IS VTRANS?

Sample of State Requirements ([Va. Code Ann. § 33.2-353](#))

- **Incorporate the measures and goals** of the approved long-range plans developed by the applicable regional organizations
- Shall be updated as needed but **no less than once every four years**
- The plan shall promote economic development and all transportation modes, intermodal connectivity, environmental quality, accessibility for people and freight, and transportation safety



WHAT IS VTRANS?

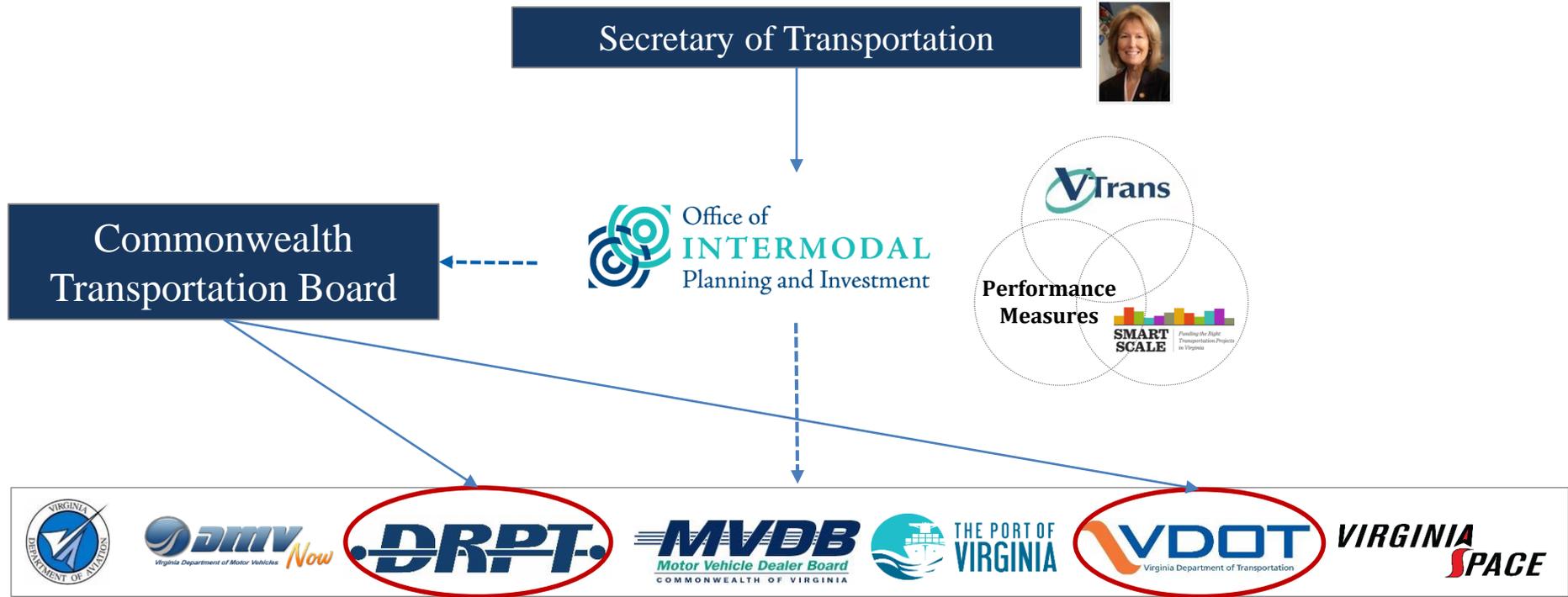
Sample of State Requirements ([Va. Code Ann. § 33.2-353](#))

- Include a Statewide transportation needs assessment, setting forth capacity needs for all
 - **corridors of statewide significance,**
 - **regional networks,**
 - and improvements to promote **urban development areas,**

and shall consider **all modes of transportation**



OIPI's ROLE in VTRANS



OIPI assists the Commonwealth Transportation Board in the Development of VTrans.

Review of VTrans2040



REVIEW OF VTRANS2040

- Vision, Goals, Objectives and Guiding Principles were approved by CTB in December 2015
 - Needs approved by CTB in December, 2015
 - Recommendations approved by CTB in January, 2018
- Implementation Plan went to CTB for review in November, 2018





VTRANS2040 Vision

“Virginia’s multimodal transportation system will be ***Good for Business, Good for Communities,*** and ***Good to Go.*** Virginians will benefit from a sustainable, reliable transportation system that advances Virginia businesses, attracts a 21st century workforce, and promotes healthy communities where Virginians of all ages and abilities can thrive.”





VTRANS2040 Guiding Principles

- *Optimize Return on Investments*
- *Ensure Safety, Security, and Resiliency*
- *Efficiently Deliver Programs*
- *Consider Operational Improvements and Demand Management First*
- *Ensure Transparency and Accountability, and Promote Performance Management*
- *Improve Coordination between Transportation and Land Use*
- *Ensure Efficient Intermodal Connections*





VTRANS2040 Goals & Objectives

Goal A – **Economic Competitiveness and Prosperity:**

Invest in a transportation system that supports a robust, diverse, and competitive economy.

- A.1. Reduce the amount of travel that takes place in severe congestion.
- A.2. Reduce the number and severity of freight bottlenecks.
- A.3. Improve reliability on key corridors for all modes.

Goal B – **Accessible and Connected Places:**

Increase the opportunities for people and businesses to efficiently access jobs, services, activity centers, and distribution hubs.

- B.1. Reduce average peak-period travel times in metropolitan areas
- B.2. Reduce average daily trip lengths in metropolitan areas.
- B.3. Increase the accessibility to jobs via transit, walking and driving in metropolitan areas.





VTRANS2040 Goals & Objectives

Goal C – **Safety for All Users:**

Provide a safe and secure transportation system for passengers and goods on all travel modes.

- C.1. Reduce the number and rate of motorized fatalities and severe injuries.
- C.2. Reduce the number of non-motorized fatalities and severe injuries.

Goal D – **Proactive System Management:**

Maintain the transportation system in good condition and leverage technology to optimize existing and new infrastructure.

- D.1. Improve the condition of all bridges based on deck area.
- D.2. Increase the lane miles of pavement in good or fair condition.
- D.3. Increase percent of transit vehicles and facilities in good or fair condition.





VTRANS2040 Goals & Objectives

Goal E – **Healthy Communities and Sustainable Transportation Communities:**

Support a variety of community types promoting local economies and healthy lifestyles that provide travel options, while preserving agricultural, natural, historic and cultural resources.

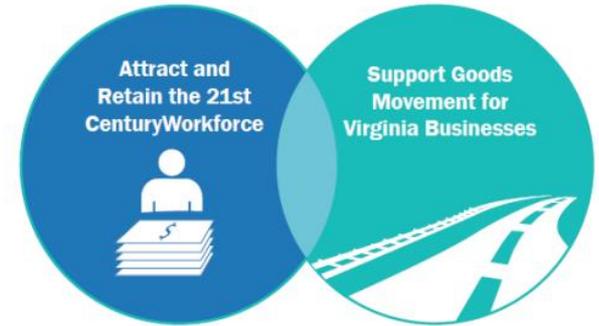
- E.1. Reduce per-capita vehicle miles traveled.
- E.2. Reduce transportation-related localized air pollution - O₃, Nox, VOC, CO
- E.3. Increase the number of trips traveled by active transportation (bicycling and walking).





REVIEW OF VTRANS2040

- Needs Assessment
 - Used a ten-year horizon
 - Identified needs by Travel Market:
 - Corridors of Statewide Significance
 - Regional Networks
 - Urban Development Areas (UDA's)
 - Safety (PSI's)
- Recommendations
 - Needs from the above categories were consolidated into one set of needs
 - Projects and studies were identified that could address those needs, and they were tiered (prioritized) based on analysis and local input

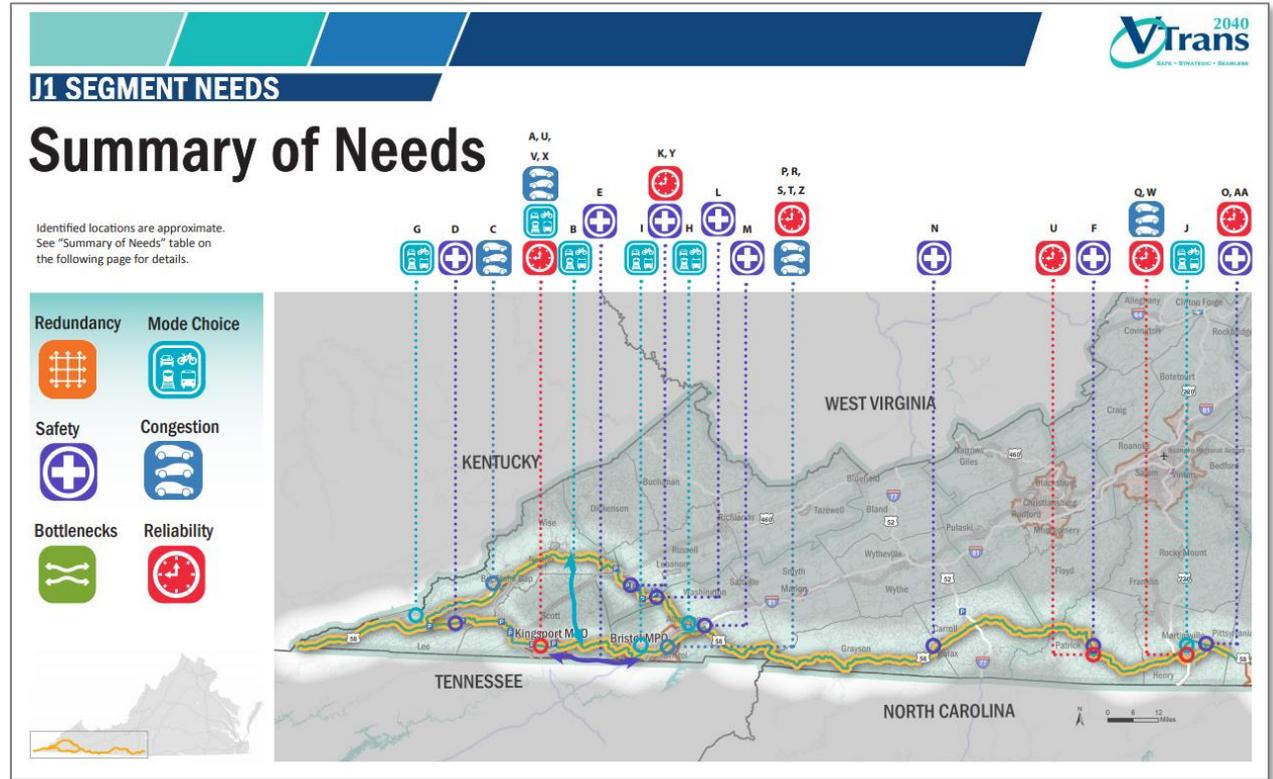




REVIEW OF VTRANS2040 (COSS Needs)

“Southside Corridor”

- US 58
- US 58 Business
- US 58 Alt
- US 58 Bypass
- CSX National Gateway Corridor
- Intercity bus service





REVIEW OF VTRANS2040 (COSS Needs)

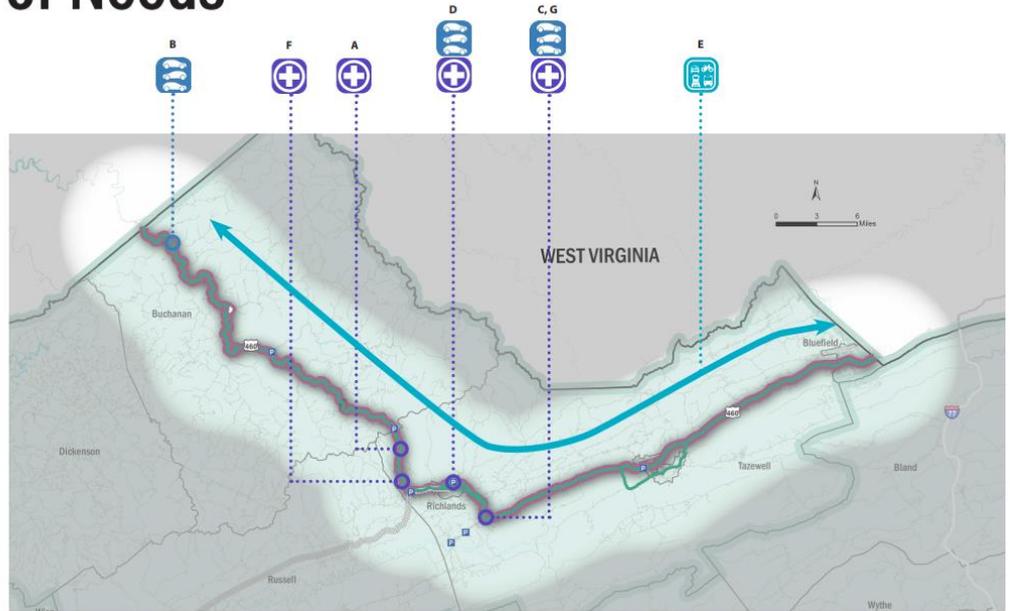


E1 SEGMENT NEEDS

Summary of Needs

Identified locations are approximate. See "Summary of Needs" table on the following page for details.

- | | |
|--------------------|--------------------|
| Redundancy | Mode Choice |
| | |
| Safety | Congestion |
| | |
| Bottlenecks | Reliability |
| | |



“Heartland Corridor”

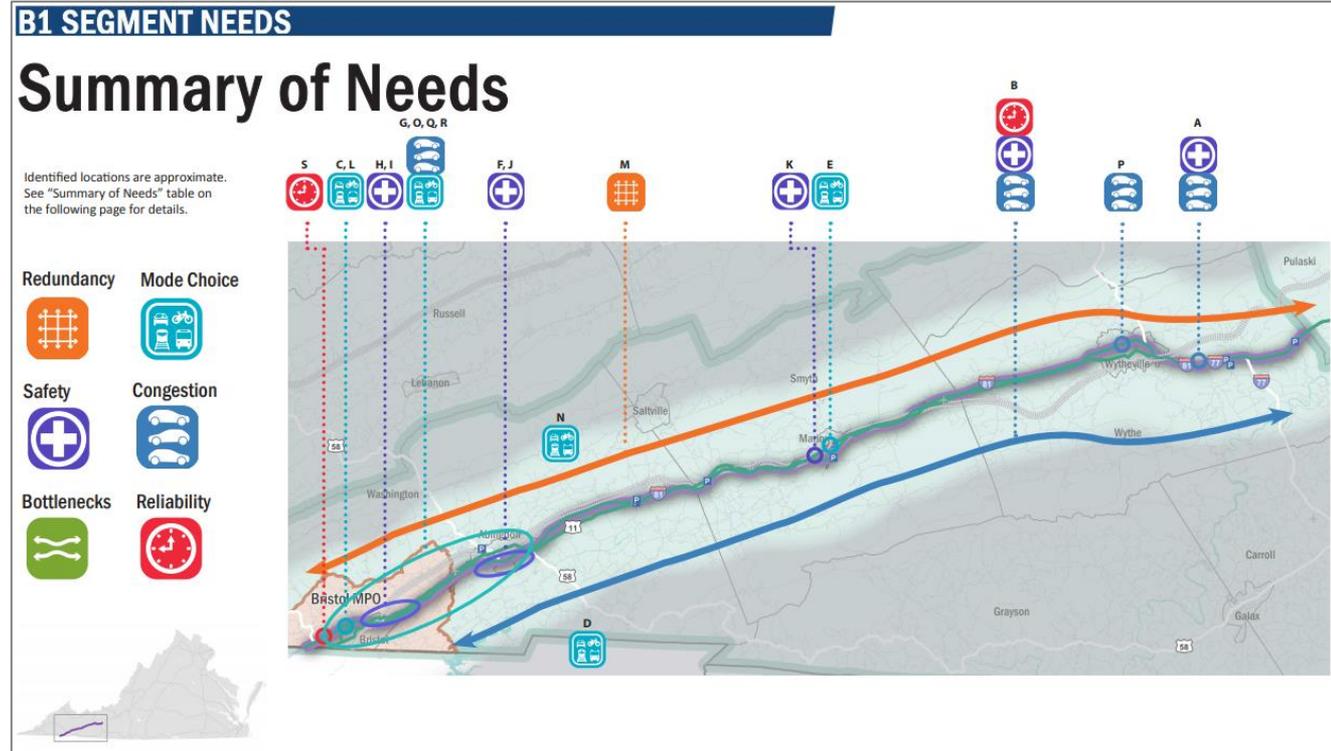
- U.S. 460
- U.S. 121 (Coalfields Expressway)
- Norfolk Southern Heartland Corridor



REVIEW OF VTRANS2040 (COSS Needs)

“Crescent Corridor”

- I-81
- U.S. 11
- I-381
- Norfolk Southern Crescent Corridor
- Short Line Railroads

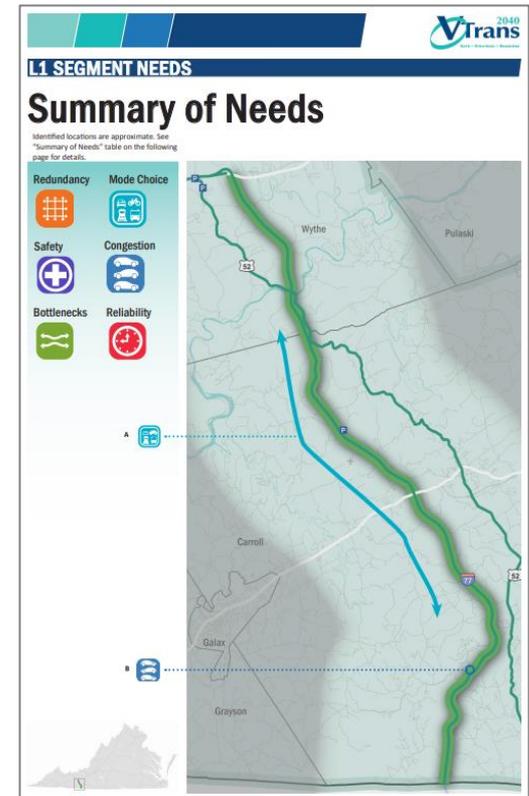
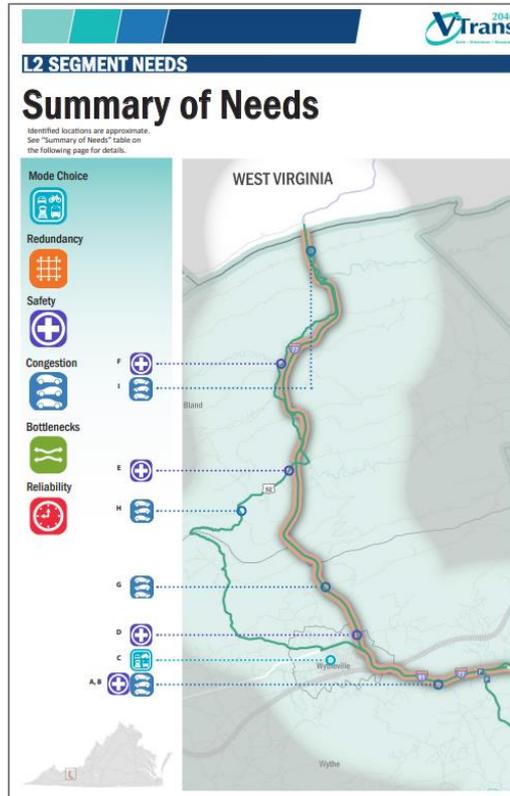




REVIEW OF VTRANS2040 (COSS Needs)

“Western Mountain Corridor”

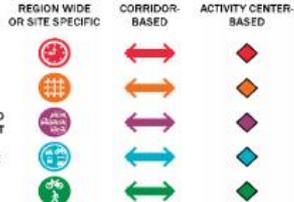
- I-77
- U.S. 52
- U.S. 11





REVIEW OF VTRANS2040 (Regional Network Needs)

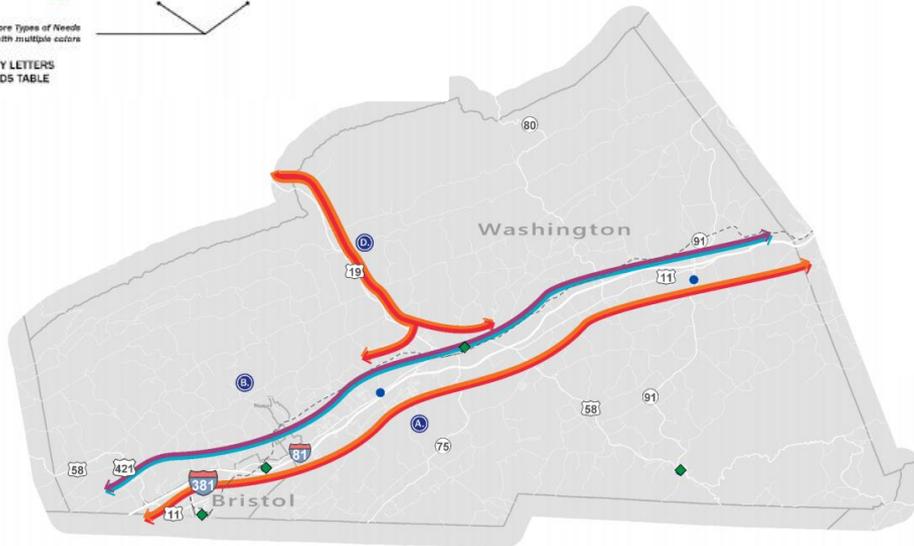
TYPES OF NEEDS



Note that 2 or more Types of Needs are shown with multiple colors

(A) NEEDS INDICATED BY LETTERS DESCRIBED IN NEEDS TABLE

Bristol Area



Needs Table

A. I-81/US 11 Corridor Reliability

The Interstate 81/US 11 corridor serves as a major artery for the region. The corridor handles significant commute, thru, and freight traffic; serving multiple activity centers throughout the region. The corridor currently lacks alternative and/or parallel network connectivity and passenger reliability at major interchanges.

B. Regional Transit Access

The region is served by Bristol Transit, which provides service in Bristol, and District Three Transit, which provides service in Abingdon. These services provide access to multiple activity centers, but provide limited regional access. There is a need to provide connector transit services and TDM programs between these existing services to provide greater connectivity to multiple activity centers and increase modal choices on the I-81/US 11 corridor.

C. Bikeable/Walkable Places

The Bristol region is largely autocentric and is generally underserved by alternative modes of transportation. However, the Creeper Trail and Downtown Bristol and Abingdon have proven to be major generators of bike and pedestrian travel. Improvements are needed to ensure connectivity and safe access for active transportation traveling to and within these activity centers.

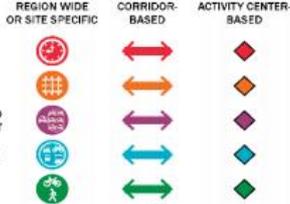
D. Western Freight Connectivity

Route 19 is the only access point to the coal fields to the west and is a critical link for freight related traffic. There is a need to improve freight reliability to alleviate access issues.



REVIEW OF VTRANS2040 (Regional Network Needs)

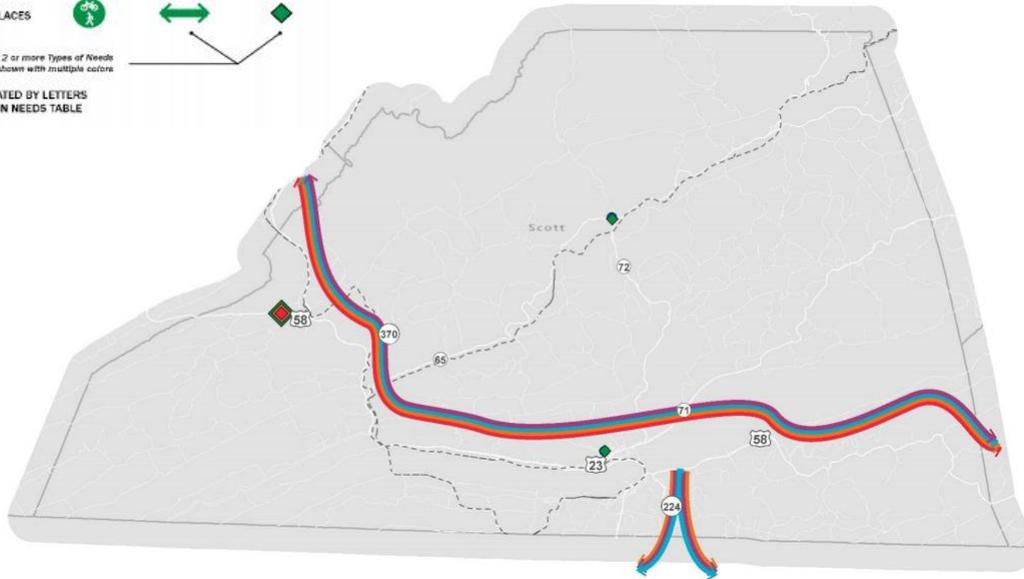
TYPES OF NEEDS



Note that 2 or more Types of Needs are shown with multiple colors

A. NEEDS INDICATED BY LETTERS DESCRIBED IN NEEDS TABLE

Kingsport Area



Needs Table

A. US 58/23 Corridor Reliability

The US 58 and 23 serve as major thru-corridors in the region. These corridors handle significant freight and commuter traffic, serving multiple activity centers. There are currently limited alternative choices to driving single occupancy vehicles on these corridors. Redundancy in choice and network connections are needed.

B. Network Connectivity and Mode Choice to Kingsport

The most significant commuter movement in the region is across the state line, including both in-flow and out-flow from Scott County. With high volumes, access management issues, and various bottlenecks, passenger reliability is key to the economic vitality of the region.

C. Duffield Freight Connectivity

The Duffield activity center has the highest concentration of freight related industries and employment. Freight access is key to the economic vitality of this activity center.

D. Walkable/Bikeable Places

The Kingsport region is largely autocentric and is generally underserved by alternative modes of transportation. A lack of active transportation infrastructure creates safety concerns and reinforces reliance on vehicular travel.



REVIEW OF VTRANS2040 (UDA Needs)

Town of Wise
designated a UDA in 2015

99

Urban Development Areas – Town of Wise

UDA Needs Profile

The Town of Wise designated one UDA in 2015, just east of US 23 and north of Norton Road. The area is currently undeveloped, and is zoned for future planned growth.

Location Characteristics

PDC - Lenowisco Planning District Commission
UDA Size - 0.10 square miles
Year Designated - 2015
Comprehensive Plan Detail - The Town of Wise designated a growth area pursuant to Code of Virginia Section §15.2-2223.1. The Planning Commission recommends that the Town Council of the Town of Wise, Virginia amend the 2015 Comprehensive Plan for the Town of Wise, Virginia along with the corresponding future land use and transportation mapping to include a designated growth area along Norton Road (US 23 Business) from Cherry Street to Hamilton Street.

Geographic Location

Socio-Economic Characteristics

UDA Characteristics: (Source: LEHD, 2010)
Total Population - 289 persons
Total Primary Jobs - 10,477 jobs

Jobs by Industry

Total Jobs by Earnings

Jobs Within a 45 Minute Drive
6,979
Working Age Population Within a 45 Minute Drive
18,710

(Source: EPA Smart Location Database (U.S. Census tract data))

Jurisdiction Characteristics:
 (Source: Weldon Cooper Center)

2010

41,452

-2.3%

2025

40,492

99

Urban Development Areas – Town of Wise

Current Place Type - Rural or Village Center

Planned Place Type - Rural or Village Center

Refer to the DRPT Multimodal System Design Guidelines, Chapter 3, for more details.

Future Transportation Needs

Internal UDA Needs	External UDA Needs
<p>High</p> <ul style="list-style-type: none"> ✓ Bicycle Infrastructure ✓ Pedestrian Infrastructure ✓ Safety Features ✓ Improvements to the Natural Environment <p>Moderate</p> <ul style="list-style-type: none"> ✓ Roadway Operations ✓ Street Grid ✓ Complete Streets ✓ Intersection Design 	<p>High</p> <ul style="list-style-type: none"> ✓ Roadway Capacity ✓ Roadway Operations ✓ Bicycle Infrastructure ✓ Pedestrian Infrastructure ✓ Complete Streets <p>Moderate</p> <ul style="list-style-type: none"> ✓ Intersection Design ✓ Safety Features ✓ Improvements to the Natural Environment

Existing Internal Needs Gap (% shortfall)

Transportation system gap by need category (represents the gap to fully promote UDA)

Highest Rated Overall Needs within UDA

Localities ranked transportation needs within their UDAs (1 being the highest need, to 4 the lowest)

- Safety for all users
- Circulation and access within the UDA
- Friendly pedestrian and bicycle environment
- Access to transportation networks beyond the UDA

22

Office of the SECRETARY of TRANSPORTATION



REVIEW OF VTRANS2040

- Current Uses
 - Vision, Goals & Objectives, and Guiding Principles
 - Overall reference for transportation planning at the state, regional, and local level
 - Needs Assessment
 - SMART SCALE (Applications for SMART SCALE must show that they address one of more VTrans Needs in order to be screened in)

VTrans Update

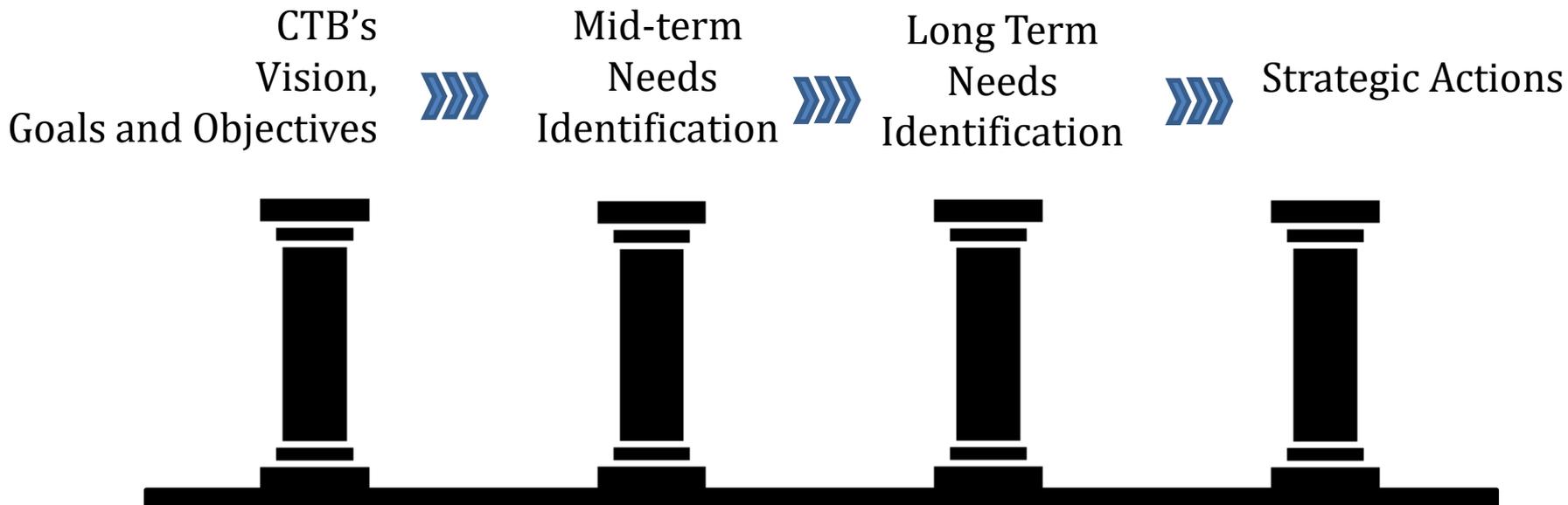


VTRANS UPDATE KICK-OFF

- Major components
- Key modifications from VTrans2040
- Expected outcomes
- Tentative timeline
- Stakeholder Involvement



MAJOR COMPONENTS





MAJOR COMPONENTS (Vision, Goals, and Objectives)

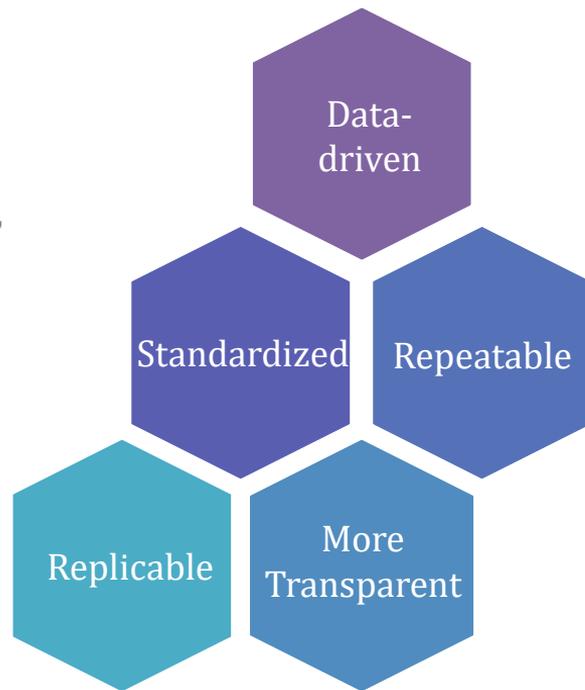
- CTB to review and reaffirm their overall direction for transportation planning & policy
- Vision to be informed by:
 - A public survey
 - Vulnerability assessment
 - Demographic and land use trends, opportunities, and challenges
 - Technology trends, opportunities, and challenges
 - Financial trends, opportunities, and challenges



MAJOR COMPONENTS (Mid-term Needs)

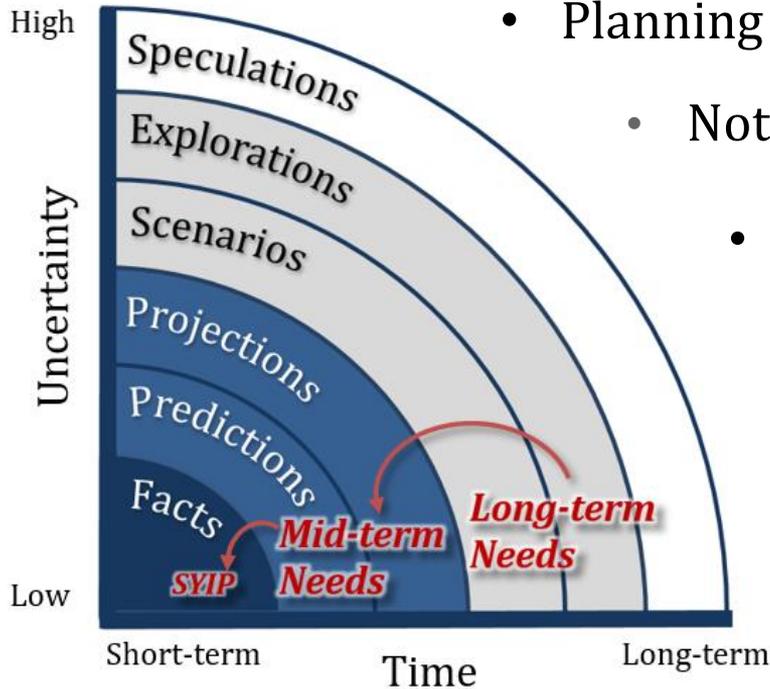
- Planning horizon: 0- 10 years
- **CTB to adopt a policy for needs identification**
 - Define “transportation need”
 - Review of VTrans need categories (e.g. CoSS, RN, UDA, Safety)
 - Utilize adopted Performance Targets, new measures or Key Performance Indicators (KPIs)
- **Adoption of the mid-term needs by December 2019**
 - Inform SMART SCALE Round 4

Ensure that methods are:





MAJOR COMPONENTS (Long-term Needs)



- Planning horizon: 10+ years
 - Not an attempt to predict, but to be prepared
 - Develop three scenarios, associated needs and revenue impacts
 - Establish connection between mid-term and long-term needs
- **Finalize by 2020**



MAJOR COMPONENTS (Strategic Actions)



- Develop strategic actions for Board's consideration:
 - Policy options and recommendations
 - Priorities for project planning activities



KEY MODIFICATIONS



- VTrans Update aims to:
 - Identify challenges and opportunities associated with trends
 - Provide a more complete picture for transportation investments
 - Convey trade-offs and opportunity cost associated with policy options
 - Relative return on investments



KEY MODIFICATIONS

- VTrans Update aims to provide compelling, easy-to-communicate snapshot of existing and envisioned transportation in Virginia.
 - Convey economic benefits associated with transportation investments
 - Identify changes in economic output and productivity
 - Identify regional connectivity needs





THEMES (Key Modifications)



Image Source: USDOT

- Resilient Transportation Infrastructure
- Smart Transportation Infrastructure
- Smarter Investments

- Increase awareness among public and local agencies



THEMES (Resilient Infrastructure)

Planning to ensure more resilient transportation infrastructure for fewer disruptions and fewer closures due to natural events

- Vulnerability Assessment
- Incorporating Asset Management Needs
- State-of-Good Repair
- Multimodal Needs



Road At Edge of Piney River Oct 11, 2018
Photo by Lee Luther Jr for *The News and Advance* (Lynchburg)



THEMES (Resilient Infrastructure)

Virginia
Traffic
Information

Download the free 511 mobile app for real-time traffic info.
 Download on the App Store ANDROID APP ON Google play

My 511 Map Views Text Views Resources Reach the Beach Northern Va. I-95/395 Contact Us Help

Weather

Traffic Alerts

Info

Legend [more info](#)

Quick Settings

Toggle Full Screen Mode

Default Preset

Overlays

- Road Conditions
- Traffic Speeds
 - 80% or ↑ 60-80%
 - 40-60% 40% or ↓
- traffic speed transparency
- Show Interstates Only
- Precipitation

Icon Layers

- Road Work
- Inactive Road Work
- Message Sign
- Travel Time Sign
- High Priority Incidents
- Other Incidents
- Rest Areas
- Open Bridges
- Special Events
- Weather Closures
- Other Weather Events
- Cameras

[Avoid Travel In North Carolina Due To Flooding_Get North Carolina Department of Transportation Updates >>](#)

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THEMES (Smart Transportation Infrastructure)

- Planning to leverage technology and prepare for a 5G society
- Automated & Connected
- Shared
- Electric



Governor Northam Announces Selection of EVgo to Develop Statewide Public Electric Vehicle Charging Network

The contract with EVgo Services, LLC will use approximately \$14 million in funds from Virginia's share of the Volkswagen mitigation settlement





THEMES (Smarter Investments)

- Planning to achieve a higher rate of return on the Commonwealth's transportation investments
- Financial Trends
- Revenue Scenarios
- Long-term Needs Trade-off Analysis
- Prioritized Strategic Actions



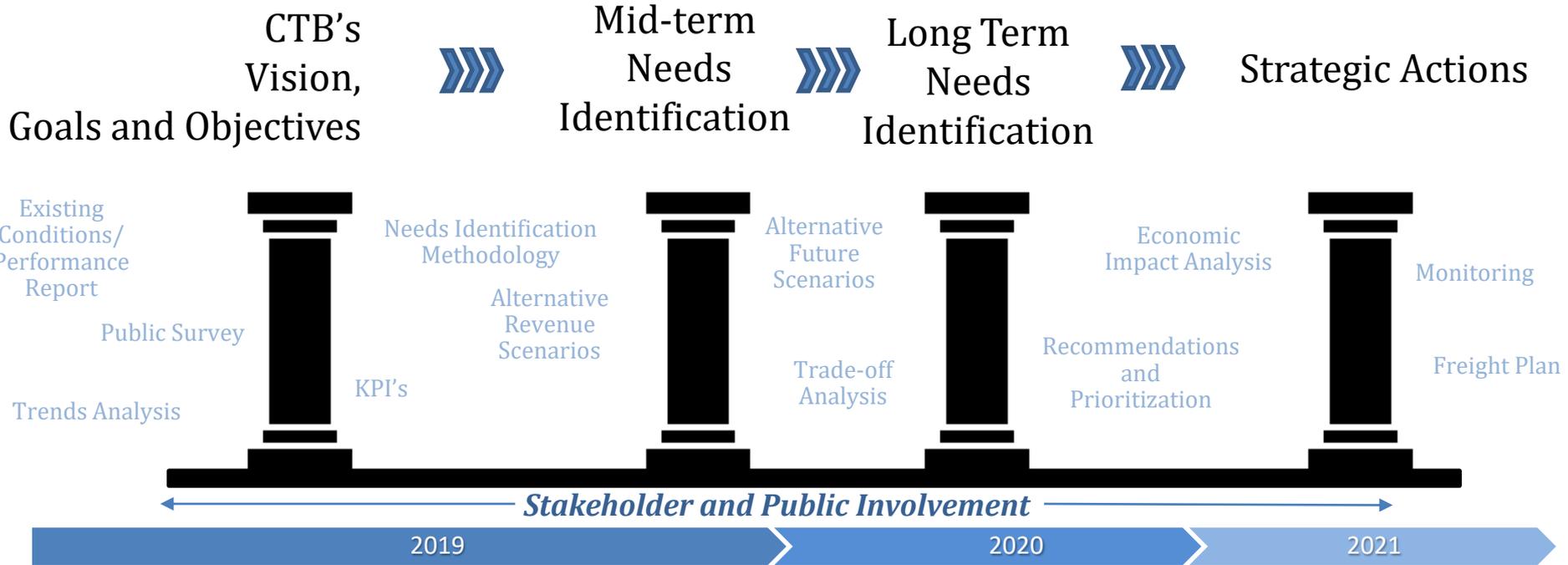


EXPECTED OUTCOMES

- Provide **policy options** for investment decisions to prepare for the future, such as:
 - Which transportation investments support desired growth and economic development
 - Opportunity costs associated with delaying or not pursuing certain investments
 - Possible technological changes and associated revenue impacts to prepare for
 - Planning considerations for making transportation infrastructure less vulnerable to extreme natural events



KEY MILESTONES





STAKEHOLDER INVOLVEMENT

- With MPO's & PDC's
 - Presentations throughout the Commonwealth
 - Fall/Winter 2018:
 - Kick-off/Approach
 - Spring 2019:
 - Discuss Needs Identification Methodology
 - Review Trends & Existing Conditions (to inform Vision)
 - Review Economic Profiles
 - Fall 2019:
 - Review Draft Mid-Term Needs
 - Informal updates and notifications
 - Regionally-initiated discussions



STAKEHOLDER INVOLVEMENT

- With the Public
 - Spring 2019:
 - Statewide Public Survey to gauge opinions, attitude, and preferences towards transportation issues
 - Public meetings in all nine CTB districts (Vision)
 - Continued involvement through Spring and Fall Transportation Meetings
 - Active online and social media presence



DISCUSSION

Needs Assessment Methodology

- Make VTrans accessibility and safety needs identification exercise more data-driven, transparent, replicable, and repeatable
- Clearer definition of a “Need”
 - Level of detail
 - Considerations included or not included
 - Geographic coverage
 - Data to review



DISCUSSION

- Review existing Goals and Objectives from VTrans2040
 - What would you change, and why?
- Review existing Needs from VTrans2040
 - What is missing?
 - What about the process would you change?



DISCUSSION

- What functions does the transportation system serve in your area?
 - What is it doing well?
 - What is it not doing well?



DISCUSSION

- Are there regional goals or measures you want incorporated into the VTrans plan process?
- Do you have suggestions for more effective public outreach in your area?
- Do you have big transportation ideas for your area but don't know where to include them in this process?



Thank you!

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