Webinar:
Draft VTrans Mid-term Needs and *InteractVTrans*

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October 29, 2019
PURPOSE OF THIS WEBINAR

- VTrans Mid-term Needs Identification Process
  - Outreach and Engagement Activities
  - Activities since the Regional Workshops
  - New Measures and Categories since the Regional Workshops
  - Revised Performance Measures and Categories

- Resources to view and utilize Mid-term Needs
  - VTrans Website
  - VTrans dataset
  - Documents displaying Draft Mid-term Needs
  - InteractVTrans for accessing Draft Mid-term Needs

- Brief Q&A

Questions received

- Why is congestion identified as a need on some segments but not others?
- How are data from smaller areas treated to avoid being "overshadowed" by data from larger areas?
- Are land use criteria considered in evaluating performance?
- How will VTrans coordinate with Arterial Preservation?
- What changes are being proposed?
- How can I update the Tier status of my region’s VEDP Business Ready Sites?
- How can I view the Needs maps at a finer scale?
- How can I get a draft report for my region?
This webinar builds on previous webinars that provide overview of:
- Purpose of VTrans
- VTrans Travel Markets
- Mid-term Needs Identification Process

Please utilize the following resources for more in-depth background information:
- Recording: VTrans Needs Assessment Overview (Weblink)
- Recording: Urban Development Area Needs (Weblink)
- Overview: VTrans Mid-term Needs webpage

For additional or more detailed questions, please utilize following opportunities:
- Webinar: Friday, November 8, 10 – 11 am (registration link)
- Contact OIPI Team
VTRANS MID-TERM NEEDS IDENTIFICATION PROCESS
• What is a Mid-term Need?
VTRANS MID-TERM NEEDS IDENTIFICATION PROCESS - OVERVIEW

**STEP 1**

**VTRANS 2040**
COMPLETED IN JANUARY 2018

- CTB resolution

**STEP 2**

**VTRANS LESSONS LEARNED EXERCISE**
FEBRUARY - MAY 2018

- Interviews with numerous state agency staff
- Review of several other state and regional long-range transportation plans

**STEP 3**

**DEVELOP AN APPROACH FOR VTRANS UPDATE**
JUNE - AUGUST 2018

- CTB Briefings

- Interviews with 19 state agency staff
- Review of 15 other state and regional long-range transportation plan

**CTB Resolution**
VTRANS MID-TERM NEEDS IDENTIFICATION PROCESS - OVERVIEW

<table>
<thead>
<tr>
<th>STEP 4</th>
<th>STEP 5</th>
<th>STEP 6</th>
<th>STEP 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINE PERFORMANCE MEASURES RELATED TO THE VTRANS GOALS AND OBJECTIVES</td>
<td>COLLECT AND REVIEW DATA FOR EACH PERFORMANCE MEASURE</td>
<td>ANALYZE PERFORMANCE</td>
<td>REVIEW PERFORMANCE WITH REGIONAL STAKEHOLDERS AND RECEIVE FEEDBACK</td>
</tr>
</tbody>
</table>

**ANALYSIS**

- What transportation future is VTRANS meant to encourage?
- How should existing conditions be measured?
- What travel, infrastructure, and modes should be included?
- Do the measures identify meaningful variations in performance?

- What are the best data sources for each measure?
- How complete, precise, up-to-date, and accurate are the data?

- What are appropriate performance levels and categories?
- What are the best units of analysis and geographical scale?

- Does the performance make sense in light of local and regional knowledge?
- Are there gaps in the analysis?
- How can the measures be improved?

- Presentation to the CTB
- Presentations to MPOs in early and late spring
- Webinar—VTRANS Needs Assessment Overview
- Webinar—VTRANS Urban Development Area Needs Assessment
- Presentations during CTB Spring Transportation Meetings
- 13 Regional Workshops
VTRANS MID-TERM NEEDS IDENTIFICATION PROCESS - OVERVIEW

<table>
<thead>
<tr>
<th>STEP 8</th>
<th>STEP 9</th>
<th>STEP 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTABLISH NEEDS THRESHOLDS AND PRODUCE DRAFT NEEDS</td>
<td>VALIDATE WITH STAKEHOLDERS AND MAKE FINAL REVISIONS</td>
<td>PRESENT TO CTB FOR APPROVAL</td>
</tr>
<tr>
<td>SEPTEMBER 2019</td>
<td>OCTOBER 2019</td>
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</table>

**APPLICATION**

- What level of performance generates a “Need”?
- Would resolution of the needs help Virginia achieve the VTrans goals and objectives?
- Are Virginia’s most important transportation issues flagged as Needs?
- Are there gaps?
- The CTB takes action.

**WE ARE HERE**

- Documentation of changes to Mid-term Needs Identification Methodology and thresholds
- CTB Briefings
- Webinar—Draft VTrans Mid-term Needs
VTrans Outreach and Engagement Activities*

9 VTrans Steering Committee Meetings
1500 Subscribed to VTrans Newsletter
9,600 Visitors to the VTrans Website
38 Meetings and Webinars for MPOs, PDCs, and Localities

13 Regional Workshops Attended by
- 83 Cities and Counties
- 30 Towns
- 15 MPOs
- 16 PDCs
- 16 Transit Agencies
- 4 TDM Agencies
- 4 Airports
- 3 Universities
- Various Other State and Regional Stakeholders

9 Public Open Houses
3 Presentations at CTB Workshops
1000+ Comments (in person or on website)

*As of August 2019
VTrans Regional Workshops
- Conducted between July 29 and August 22, 2019
- All MPOs, PDCs, towns, cities, counties, and several other agencies were invited
• VTrans Regional Workshops
  – Attended by:
    o 83 Cities and Counties
    o 30 Towns
    o 15 MPO’s
    o 16 PDC’s
    o 16 Transit Agencies (several transit departments that are part of cities and counties)
    o 4 TDM agencies
    o 4 airports
    o 3 universities
    o Various other state and regional stakeholders (Port of Virginia, VA Department to Aviation, TMPD, TED, VDOT residencies, etc.)
  – Detailed meeting summaries were prepared and reviewed by those in attendance (Weblink)
We received two types of comments:

1. Location-based comments
2. On methods and thresholds (captured in Workshop Summary - Synthesis of Comments)

Over 900 comments entered in InteractVTrans
Changes based on Regional Workshops

- Made over 30 changes to the VTrans measures and thresholds.
- There were several other suggestions that require more time for implementation.
- For a complete list, please refer to [this document](#).

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### Example

<table>
<thead>
<tr>
<th>ID</th>
<th>Measure</th>
<th>Method or Threshold Shared at Regional Workshop</th>
<th>Comment Received</th>
<th>Comment Reference</th>
<th>Action taken</th>
<th>Change made for Needs Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Percent of Person-Miles Traveled in Excessively Congested Conditions (PECC)</td>
<td>Option for PECC Thresholds - 60%, 75%, and 90% of Posted Speed Limited</td>
<td>Support for speed threshold of 75% of posted speed limited</td>
<td>CSPDC #2</td>
<td>Yes</td>
<td>Draft VTrans Needs are based on speed threshold of 75% of posted speed limited.</td>
</tr>
<tr>
<td>2</td>
<td>Time period - weekday 6 am to 8 pm.</td>
<td>Ensure that weekend travel is captured</td>
<td>Bristol #1, 33, Fredericksburg #4, 5, Hampton Roads #8, Richmond # 3</td>
<td>Yes</td>
<td>Yes</td>
<td>Threshold is based on weighted average of weekday and weekend.</td>
</tr>
<tr>
<td>3</td>
<td>Time period - weekday 6 am to 8 pm.</td>
<td>Ensure that the measure captures seasonality</td>
<td>Roanoke Valley #10, Hampton Roads #8, Bristol #1</td>
<td>Yes and requires more work</td>
<td>Yes</td>
<td>We confirmed that the method takes into account seasonal variations. We will need more time to develop a method to reflect large variations between seasonal and non-seasonal traffic and their impact on the need identification method.</td>
</tr>
<tr>
<td>4</td>
<td>Applied to Interstates and Select Limited Access Facilities</td>
<td>Request to clarify criteria for selecting facilities as limited-access.</td>
<td>Lynchburg #1, NOVA #12, Culpeper #4</td>
<td>Yes</td>
<td>Updated LAF list to include more segments (used a logic that allowed shorter segments of less than 10 miles if they connected to another LAF)</td>
<td></td>
</tr>
</tbody>
</table>
**Virginia Economic Development Partnership (VEDP) Business Ready Sites**

**Tier 5**

“Shovel Ready” All permits are in place and the site is ready for a site disturbance permit from the locality in which the site is located.

**Certified as “infrastructure ready”** All infrastructure is in place or will be deliverable within 12 months. All permit issues have been identified and quantified.

**Tier 4**

**Zoned industrial/commercial**, due diligence complete, but site has minimal or no infrastructure.

**Tier 3**

Controlled and marketed for development. **Comprehensive Plan reflects** site intended for industrial or commercial development and use, but site is not zoned as such and a rezoning hearing needs to be scheduled. Site has minimal or no infrastructure. Minimal or no due diligence has been performed.

**Tier 2**

Under (a) public ownership, (b) public/private ownership, or (c) private ownership with such private owner(s) agreeable to marketing the site for economic development purposes and to allowing access to the property for site assessment and marketing purposes. Comprehensive plan reflects site as appropriate for industrial or commercial development and use, but site is not zoned as such. Site has minimal or no infrastructure. Minimal or no due diligence has been performed.

**Tier 1**

Source: [https://www.vedp.org/vbrsp](https://www.vedp.org/vbrsp)
Access to Industrial and Economic Development Areas

- For Sites with Readiness Status 3 or higher, access from the nearest CoSS (highway, rail, port, etc.)

- “Need to connect or improve access to and from the nearest CoSS for sites that have achieved readiness status of Tier 3 or higher in VEDP’s Business Ready Site Program.”
• Pedestrian Safety Improvement Corridors
  – Based on VDOT’s Pedestrian Safety Action Plan
Method for Identification of Need for Safety Improvements at Segments and Intersections
  - For each Construction District, the VDOT Top 100 Potential for Safety Improvement (PSI) Intersections and Segments
  - Intersections and Segments meeting the following criteria:
    - Locations on PSI List 2+ years out of last five years
    - and, on Fatal/Injury PSI List 2+ years out of last five years
    - and, with at least 3+ Fatal or Injury crashes at the intersection or segment over the last five years
• Capacity Preservation: For Corridor of Statewide Significance (CoSS) and Regional Networks (RN):
  – “Preserve and enhance capacity by improving access management, reducing signals or signal phases, and implementing innovative intersection configurations.”
• Transportation Demand Management
  – Limited-Access Corridor of Statewide Significance (CoSS) and other Limited-access Facilities within Regional Networks (RN):
    – “Need for new or expanded park and ride facilities, rail and public transportation services and facilities, and commuter assistance programs.”
  – Non-limited Access CoSS outside of RNs:
    – “Need for new or expanded park and ride facilities, rail and public transit services and facilities, bicycle and pedestrian facilities, and commuter assistance programs.”
  – Within RN, non-interstate CoSS, non-limited access CoSS, all remaining non-local streets:
    – “Need for new or expanded public transit services and facilities, rail and public transit services and facilities, bicycle and pedestrian facilities, commuter assistance programs, and emerging technologies such as travel apps and shared-mobility that help reduce Vehicle Miles Travel (VMT).”
<table>
<thead>
<tr>
<th>VTrans Goal</th>
<th>Mid-Term Needs Measures and Categories</th>
<th>CoSS</th>
<th>Regional Network</th>
<th>UDA</th>
<th>State-wide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Competitiveness</td>
<td>Congestion: Percent Person Miles Traveled in Excessively Congested Conditions (PECC)*</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Congestion: Travel Time Index (TTI)**</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Reliability: Level of Travel Time Reliability (LOTTR)</td>
<td>✔</td>
<td>✔</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Reliability: Passenger and Intercity Rail On-time Performance</td>
<td>✔</td>
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</tbody>
</table>

* Interstates and select limited access facilities within Regional Networks

** All of non-limited access CoSS, plus all other facilities within Regional Networks
## Mid-Term Needs Assessment | Revised Measures and Categories

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<th>UDA</th>
<th>State-wide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessible Places</td>
<td>Competitiveness of Transit Accessibility to Activity Centers for Workers</td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Motorized Access to Activity Centers for Workers</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transit Access for Equity Emphasis Areas</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Access to Industrial and Economic Development Areas (locally-determined)*</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UDA Area Needs (locally-determined)**</td>
<td></td>
<td></td>
<td>✔</td>
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</table>

* Locations included in Virginia Economic Development Partnership’s Business-Ready Site Program
** Includes improvements such as bicycle and pedestrian infrastructure, circulation and access, safety, transit enhancements and access, etc.
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<th>State-wide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>Locations with high number of crashes and high crash severity</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Pedestrian Safety Improvement Locations</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proactive System Management</td>
<td>Capacity Preservation</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Healthy, Sustainable Communities</td>
<td>Transportation Demand Management</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>
DRAFT NEEDS
1. Method Rooted in Performance-based Planning
   - “Connecting performance measures to goals and objectives through target setting provides a basis for understanding and sharing information with stakeholders and the public.”
   - We presented results of initial data analysis at the Regional Workshops; and,
   - Modified methods, performance measures, and targets based on the feedback received.

Source: FHWA (https://ops.fhwa.dot.gov/plan4ops/performance_based.htm)
2. Inclusion of Industrial and Economic Development Areas (IEDA)
   - Based on Virginia Economic Development Partnership’s (VEDP) Business-Ready Site Program
     o Established pursuant to § 2.2-2238 C. of the Code of Virginia of 1950, as amended (the Code), to identify and assess the readiness of potential industrial or commercial sites in the Commonwealth of Virginia (the Commonwealth) for marketing for industrial or commercial economic development purposes, thereby enhancing the Commonwealth’s infrastructure and promoting the Commonwealth’s competitive business environment.
   - Presented a tentative idea at the Regional Workshops and supported by those in attendance
3. Method of Analysis and Presentation
   - Needs are more specific and assigned to:
     - **Nodes:** Intersections, Rail Stations, Activity Center Centroid, Industrial and Economic Development Area.
     - **Segments:** Congestion, Reliability, Transit Access, Non-motorized Access, etc.
3. Method of Analysis and Presentation

- Needs are binary in nature to minimize need for interpretation
- Needs are prepared to be viewed holistically
  - Example: Need for Travel Time Reliability Improvement and with Need for Safety Improvement
1. Draft Mid-term Needs are subject to change based on:
   - Guidance received from the Secretary and other CTB members
   - Agency and public feedback
   - Additional quality checks
   - Further analysis to address identified limitations/weaknesses
2. Needs are not solutions
   – A highway Congestion or Reliability Need may also be addressed by rail or transit

Source: Potomac Local
3. Location of a Need may not necessarily be same as the location of the solution
   – A solution to a Need may be elsewhere on the same facility or on a parallel facility
4. Consider taking a comprehensive view of the Mid-term Needs
   - There is one document per Construction District for Mid-term Needs. It includes Needs for CoSS, RN, UDA, and Safety
   - Mid-term Needs can be **viewed across travel markets and need types**.
     o Example: Identify segments that have both, Need for Congestion Mitigation **AND** Need for Travel Time Reliability Improvements
     o Example: Identify segments that have both, Need for Travel Time Reliability Improvements **AND** Need for Safety Improvement
1. Print-ready Documents
   - Executive Summary and Maps displaying Vtrans Mid-term Needs
   - Available by Nine (9) Construction Districts on VTrans website:
     o VTrans Mid-term Needs webpage
     o VTrans Online Meetings > Fall Transportation Meetings
   - Targeted at: Users who prefer hard copies
2. Database to download
   - ArcGIS Map Package, description of fields (nodes and segments), and Guide to InteractVTrans
     - ArcGIS Map Package includes all Mid-term Needs: Congestion, Reliability, Safety, UDA, IEDA, etc.
     - Available as one zip file on VTrans website:
       ▪ VTrans Mid-term Needs webpage
       ▪ VTrans Online Meetings > Fall Transportation Meetings
   - Targeted at: Power users who have access to ArcGIS and want to build customized queries and develop maps
3. **InteractVTrans**
   - User: Like ability to zoom in and out
1. “FIND” - ability to: query, filter, and download VTrans data specific to a city, county, MPO or PDC area and other areas of geographic interest

*InteractVTrans* serves three key functions
1. “FIND” - EXAMPLE: In Salem Construction District, InteractVTrans serves three key functions

Need for Congestion Mitigation
AND
Need for Travel Time Reliability Improvement,
AND
Need for Safety Improvement
AND
Need for Corridor Preservation
1. **“FIND”** - download Mid-term Needs as a table or as a shapefile

InteractVTrans serves three key functions

Once the Board adopts Mid-term Needs, please ensure that state agency staff and localities are using the **adopted** Mid-term Needs for development of SMART SCALE applications.
2. **“LAYERS”** - turn on and off data layers of interest

*InteractVTrans* serves three key functions
3. “COMMENT” - by dropping a point on the map and noting a specific comment or idea

*InteractVTrans* serves three key functions.
Demonstration
• Please explore datasets for accuracy and completeness

• If you see something unexpected, please let VTrans Team know:
  – comment@vtrans.org

• We expect to make some changes and refinements before Commonwealth Transportation Board action is requested
<table>
<thead>
<tr>
<th>Date</th>
<th>VTrans Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 15 - November 13</td>
<td>Fall Transportation Meetings</td>
</tr>
<tr>
<td>October 29</td>
<td>Webinar: Draft Mid-term Needs and InteractVTrans</td>
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<tr>
<td>November 8</td>
<td>Webinar: Draft Mid-term Needs Related Q&amp;A</td>
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<tr>
<td>December 11</td>
<td>December CTB Meeting: Request for CTB action</td>
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<tr>
<td>Before the end of 2019</td>
<td>OIPI intends to publish final approved list of Mid-Term Needs</td>
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<tr>
<td>April 1, 2020</td>
<td>Deadline for localities to adopt new UDAs in Comprehensive Plans</td>
</tr>
<tr>
<td>Spring-Summer 2020</td>
<td>SMART SCALE Round 4 proposals screened with updated Mid-Term Needs</td>
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QUESTIONS/DISCUSSION

OIP Staff Contact Information:

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jitender Ramchandani</td>
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</tr>
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<td>804.786.2362</td>
<td><a href="mailto:Kathryn.Schwing@oipi.Virginia.gov">Kathryn.Schwing@oipi.Virginia.gov</a></td>
</tr>
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<td><a href="mailto:Chris.Wichman@oipi.Virginia.gov">Chris.Wichman@oipi.Virginia.gov</a></td>
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