



COMMONWEALTH *of* VIRGINIA
Office of the
SECRETARY *of* TRANSPORTATION

VTrans Mid-Term Needs and InteractVTrans Demo

Lynchburg District - SMART SCALE Round 4
Regional Workshop

Chris Wichman
Office of Intermodal Planning and Investment

March 3, 2020



PRESENTATION TODAY

Agenda

- VTrans Mid-term Needs - Noteworthy Items
- Available Tools
 - InteractVTrans Demonstration
 - Connection to SMART Portal

PRESENTATION TODAY | FOCUS ON VTRANS NEEDS SCREENING

SMART SCALE Screening:

Eligibility

Is the proposed project a capacity or operational improvement for highway, transit, bicycle, pedestrian, or transportation demand management?

Is the applicant an eligible entity?

Readiness

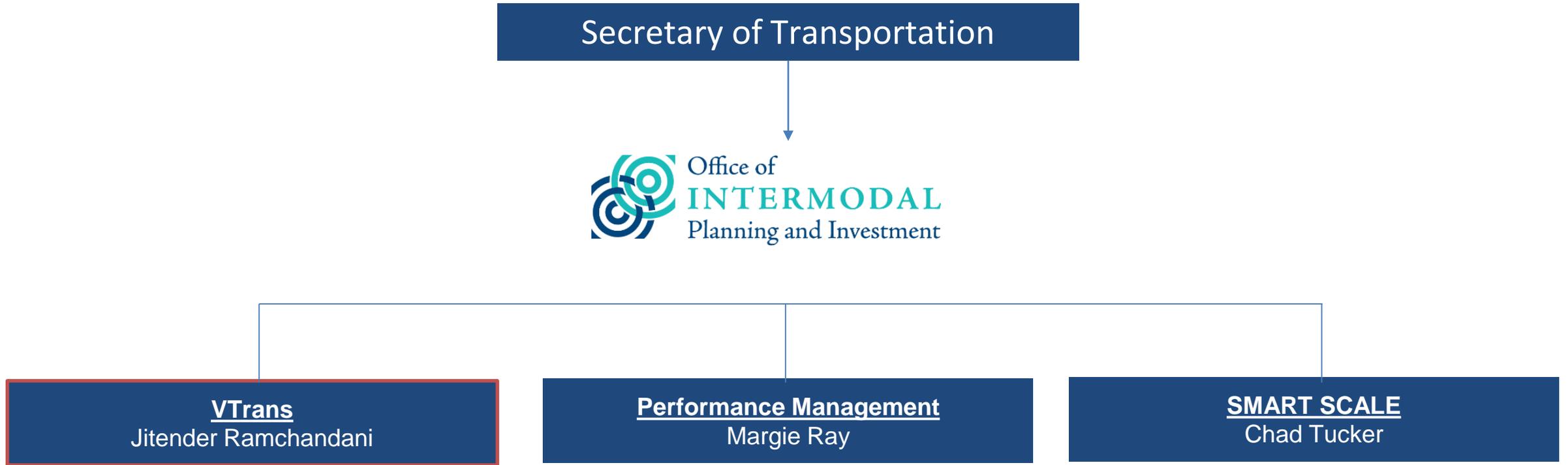
Does the proposed project meet required level of planning and supporting documentation needed for projects to be considered and evaluated for SMART SCALE funding?

VTrans Needs

Is the proposed project or strategy consistent with the assessment of capacity needs for Corridors of Statewide Significance, Regional Networks, Urban Development Areas, and Safety undertaken in VTrans?

←
Focus of
today's
presentation

OIPI'S ROLE IN VTRANS



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



MID-TERM NEEDS | NOTEWORTHY ITEMS

VTRANS MID-TERM NEEDS | NOTEWORTHY ITEMS

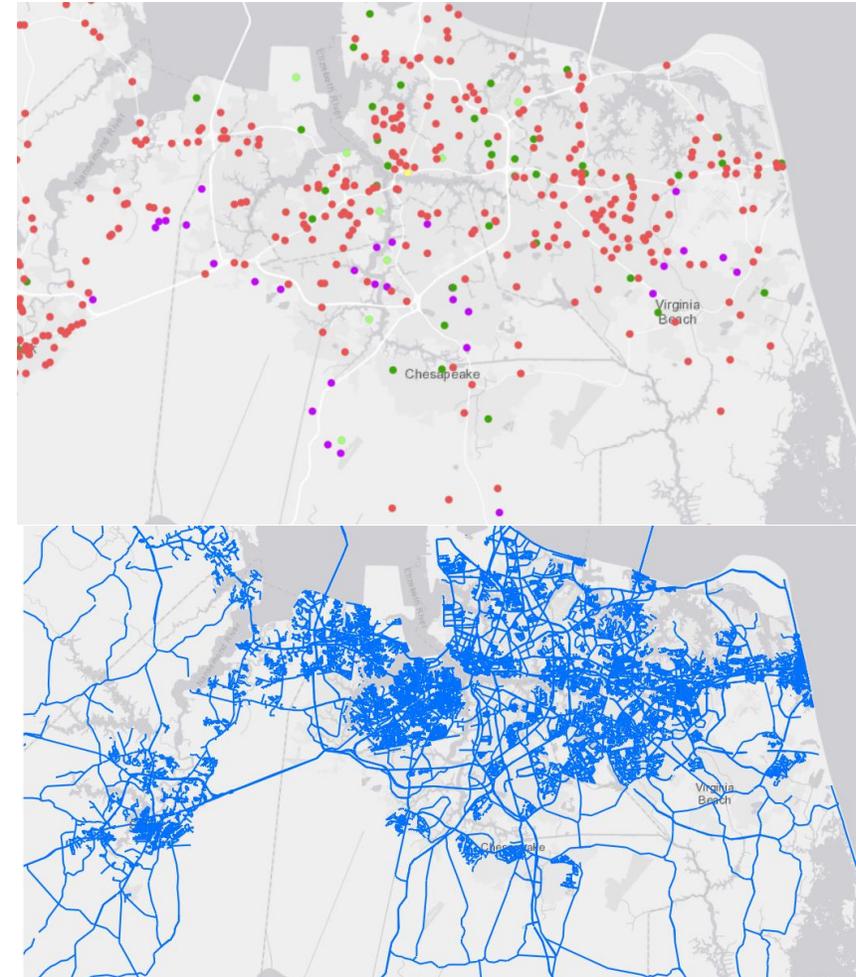
1. CTB approves Methodology and accepts 2019 VTrans Mid-term Needs
 - Through data-driven Needs assessment over 80 million data points were processed
 - If a data point is found to be inconsistent with the Commonwealth Transportation Board's (CTB) approved 2019 Mid-term Needs Identification Methodology, the **approved methodology takes precedent.**



VTRANS MID-TERM NEEDS | NOTEWORTHY ITEMS

2. 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.



VTRANS MID-TERM NEEDS | NOTEWORTHY ITEMS

3. 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.**
 - Example: Identify segments that have both a Need for Safety Improvement **AND** a Need for Bicycle Access
 - Example: Identify segments that have both a Need for Transit Accessibility Improvement for Equity Emphasis Areas **AND** a Need for Sidewalks

VTRANS MID-TERM NEEDS | NOTEWORTHY ITEMS

4. Needs are not solutions

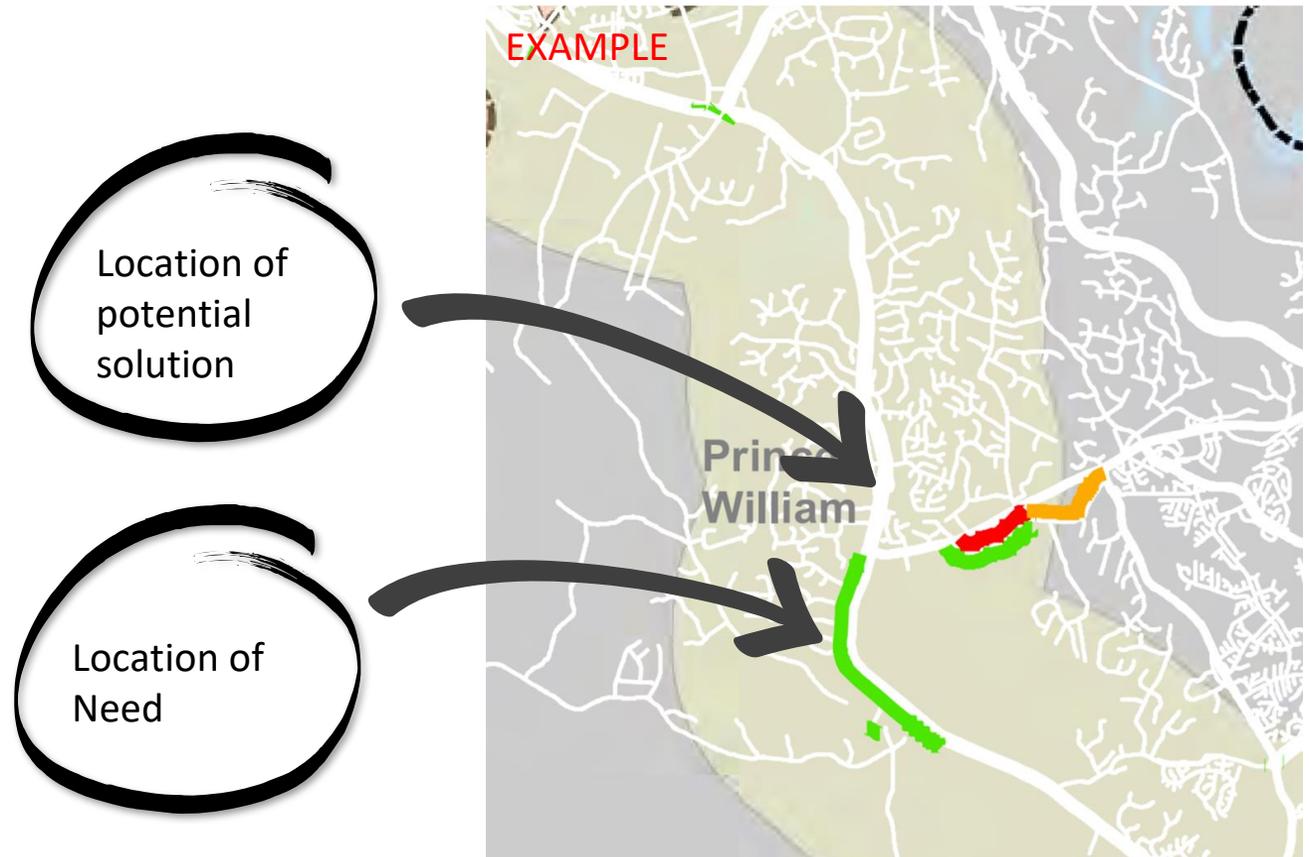
- A highway Congestion or Reliability Need may also be addressed by rail or transit



Source: [Potomac Local](#)

VTRANS MID-TERM NEEDS | NOTEWORTHY ITEMS

5. 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



VTRANS MID-TERM NEEDS | NOTEWORTHY ITEMS

6. VTrans Safety Needs include more than the “Top 100”
 - Based on a combination of the Potential for Safety Improvement (PSI) and Fatal/Injury Crash Frequency locations
 - Method
 - VDOT Top 100 Potential for Safety Improvement (PSI) Intersections and Segments for each Construction District, *PLUS*:
 - Intersections and Segments meeting any of the following criteria:
 - Locations on PSI List 2+ years out of last five years, OR
 - Locations on Fatal/Injury PSI List 2+ years out of last five years, OR
 - Locations with at least 3+ Fatal or Injury crashes at the intersection or segment over the last five years

VTRANS MID-TERM NEEDS | ITEMS INCLUDED IN CTB ACTION

- The CTB resolved that for SMART SCALE, the identified Safety Needs on CoSS roadways shall also be considered CoSS Needs
- Similar to Round 3, localities can submit safety studies to get project funding applications screened in for the Safety travel market.

Note: VTrans Travel Markets determine funding eligibility (HPP or DGP) and eligible applicants (Regional Entities, Locality, Transit Agency) per the SMART SCALE policy guide

VTRANS MID-TERM NEEDS | ITEMS INCLUDED IN CTB ACTION

- InteractVTrans changes for CoSS-eligible Safety Needs:

Find
Layers
Comment

Locations

Limit results to specific areas (optional)

Select a Location Type v

Items: 0

Search Criteria

Find features in up to three layers

1. Feature Type to Search For (Required)

2019 VTrans Mid-Term Needs (Segments) x v

Criteria

Need - Safety Improvement v

Select a Filter v

2 NO

YES

3 YES (CoSS) ←

Select a Search Criteria Layer v

Clear
Find



2019 VTrans Mid-Term Needs (Segments) - I-81N

Need - Transit capacity (UDA)	NO
Need - Transit facilities (UDA)	NO
Need - Street Grid (UDA)	NO
Need - Bicycle Infrastructure (UDA)	NO
Need - Pedestrian Infrastructure (UDA)	NO
Need - Complete Streets (UDA)	NO
Need - Safety features (UDA)	NO
Need - On-street parking (UDA)	NO
Need - Off-street parking (UDA)	NO
Need - Intersection design (UDA)	NO
Need - Signage/wayfinding (UDA)	NO
Need -Traffic calming (UDA)	NO
Need - Environment (UDA)	NO
Need - Sidewalks (UDA)	NO
Need - Safety Improvement	YES (CoSS) ←
Need - Pedestrian Safety	NO

*The Two categories [Yes, Yes (COSS)] are mutually exclusive!

MID-TERM NEEDS | METHODS TO ACCESS NEEDS

	PRINT-READY DOCUMENTS	INTERACTVTRANS	DATABASE – ARCMAP PACKAGE
OPTION	<p>Executive Summary and maps showing Mid-term Needs</p> <p>Methodology Report</p>	<p>InteractVTrans</p> <ul style="list-style-type: none"> • Find / download Needs by geography • Overlay additional layers, such as crashes • Locate where multiple Needs exist on a Segment • Identify Segment and Node IDs for use in Smart Portal 	<p>Download</p>
TARGET AUDIENCE	<ul style="list-style-type: none"> • Policy makers, MPO and PDC Directors, Administrators, etc. 	<ul style="list-style-type: none"> • Planners and engineers 	<ul style="list-style-type: none"> • Power users / analysts with access to ArcGIS and a need to query and customize information

Interact **VTRANS**

VIRGINIA'S
TRANSPORTATION PLAN



at your fingertips

[InteractVTrans](#)

MID-TERM NEEDS | AVAILABLE TOOLS



SEGMENT IDs RANGE: 100,001-355,503



NODE IDs RANGE: 400,001-404,670



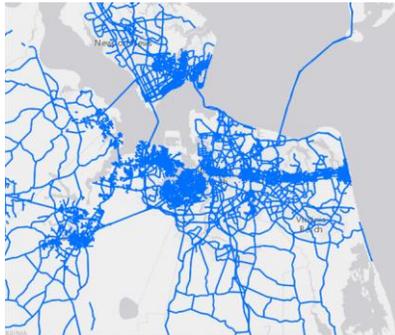
INTENDED PURPOSE – VIEW AND SEARCH NEEDS AND CONTEXT

1. View and search for locations with Needs
2. Identify context for a proposed improvement by identifying presence of transit, rail, and other features
3. Select locations that have multiple overlapping Needs

INTENDED PURPOSE – APPLICATION INTAKE

1. With established Need and location, utilize SMART Portal to start developing funding application

MID-TERM NEEDS | CONVERSION FOR SMART PORTAL - SEGMENTS



VTrans Mid-Term Needs (Segments)

- Congestion (CoSS, RN)
- Reliability (CoSS, RN)
- Capacity Preservation (CoSS, RN)
- TDM (CoSS, RN)
- Transit Access for Equity Emphasis Areas (RN)
- Bicycle and Pedestrian Access (RN)
- UDA multiple categories (RN, UDA)
- Safety Improvement (CoSS, Safety)
- Pedestrian Safety Improvement (Safety)

SEGMENT IDs RANGE:

100,001-355,503



Corridors of Statewide Significance

Segments: Congestion, Reliability, Capacity Preservation, TDM, Safety (CoSS)



Regional Networks

Segments: Congestion, Reliability, Capacity Preservation, TDM, Transit Equity, Bicycle & Pedestrian Access, various UDA Needs (UDA, RN)



Urban Development Areas

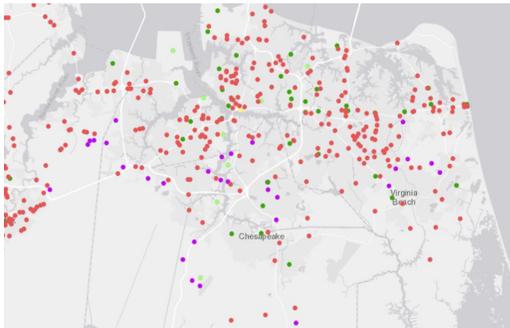
Segments: various UDA Needs (UDA Only)



Safety

Segments: Safety (*non-CoSS*), Pedestrian Safety Improvement

MID-TERM NEEDS | CONVERSION FOR SMART PORTAL - NODES



- VTrans Mid-Term Needs (Nodes)**
- Rail On-time Performance (CoSS)
 - Transit Access (RN)
 - Safety Improvement (CoSS, Safety)
 - Industrial and Economic Development Areas (RN, UDA)

NODE IDs RANGE:

400,001-404,670



Corridors of Statewide Significance
 - Nodes: Rail, Safety (CoSS)



Regional Networks
 - Nodes: IEDA (UDA, RN), Transit Access



Urban Development Areas
 - Nodes: IEDA (UDA only)



Safety
 - Nodes: Safety (*non-CoSS*)

Need Node ID	400757
Node Name	Montview
Node Type	Activity Center (Freight Dependent)
Need for Rail On-Time Performance (CoSS)	NO
Need for Transit Access (RN)	YES
Need for Safety Improvement	NO
Need for Improved Access to Industrial and Economic Development Area with Readiness Status 3 or higher	NO

Example of how Node-based Needs are depicted on InteractVTrans



Demonstration Videos

SMART SCALE | APPLICANT WORKFLOW



SEGMENT IDs RANGE: 100,001-355,503



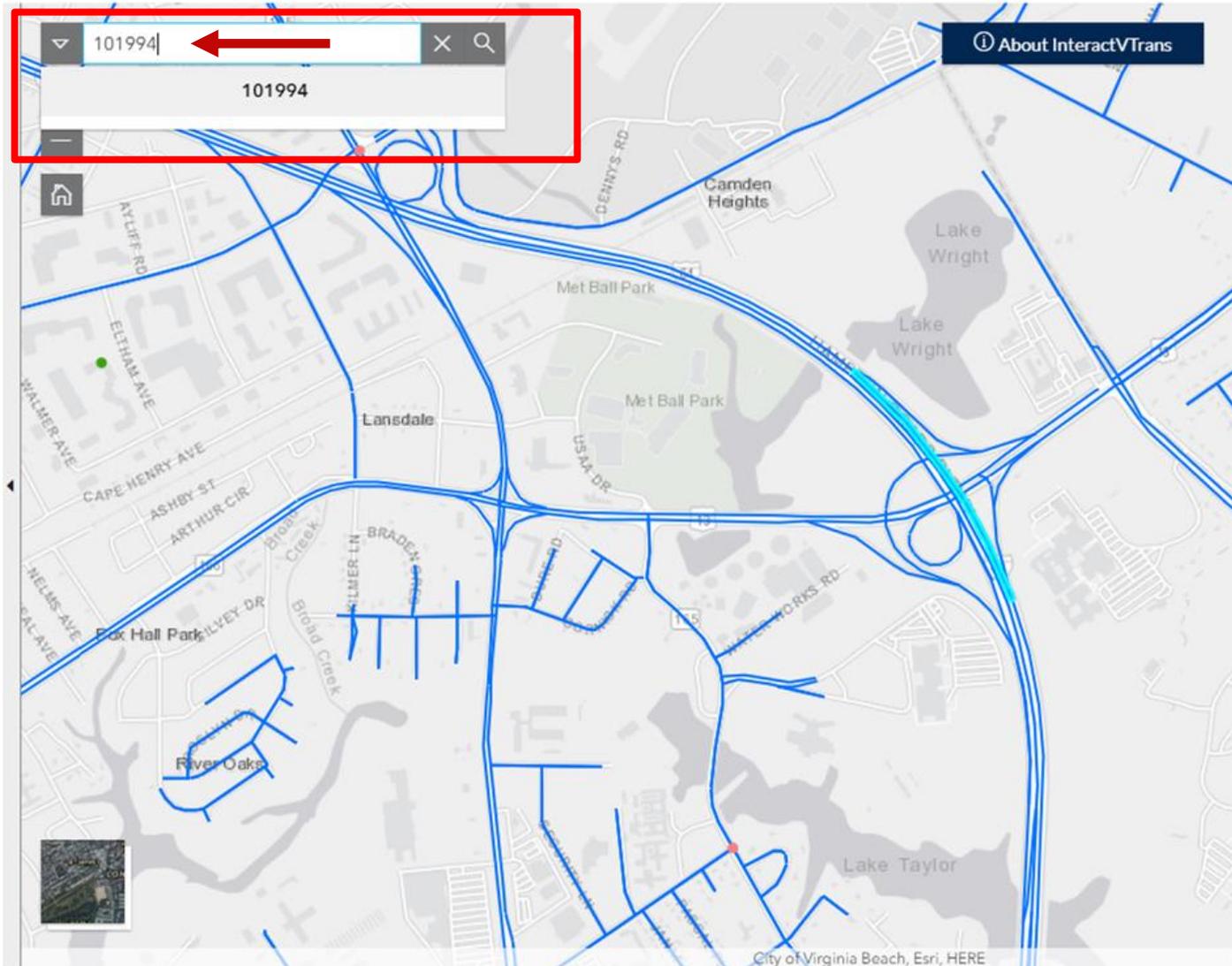
NODE IDs RANGE: 400,001-404,670



1. Identify Need location

- Utilize six-digit Node or Segment Need ID to locate the segment or node from [InteractVTrans](#)

MID-TERM NEEDS | NEED ID INTEROPERABILITY



Zoom to 1 of 4

2019 VTrans Mid-Term Needs (Segments) - I-64W

Need Segment ID	101994
AADT (bidirectional)	142,000
Street Name	
Route Common Name	I-64W
Direction	Westbound
Need - Congestion Mitigation (CoSS)	NO
Need - Improved Reliability (CoSS)	NO
Need - Capacity Preservation (CoSS)	NO
Need - Transportation Demand Management (Limited Access CoSS)	YES
Need - Transportation Demand Management (non-limited Access CoSS)	NO
Need - Congestion Mitigation (RN)	NO
Need - Improved Reliability (RN)	NO
Need - Capacity Preservation (RN)	NO
Need - Transportation Demand Management (Limited Access)	NO

MID-TERM NEEDS | NEED ID INTEROPERABILITY



Corridors of Statewide Significance

Select the affected corridors by checking the boxes in the list below or clicking on the shapes on the map.

Need Id	Need Location	Need Categories	Distance to Project		
<input type="checkbox"/>	402119 City) Roadway Intersection: Baker Rd PR/NP (Virginia Beach City), Northampton Blvd NP (Virginia Beach City) VA-166E_US-13N	Safety Improvement CoSS	0.00		
<input checked="" type="checkbox"/>	101994 ↑ I-64W	Limited Access TDM (New or expanded park and ride facilities, rail and public transportation services and facilities, and commuter assistance programs), Roadway Safety Improvement	0.00		
<input type="checkbox"/>	102633 I-64R	Limited Access TDM (New or expanded park and ride facilities, rail and public transportation services and facilities, and commuter assistance programs)	0.00		

Finished selecting Corridors?
[Next Step](#)



Project Areas



Corridors of Statewide Significance



Regional Network



Urban Development



Safety



Summary



VIRGINIA'S
TRANSPORTATION PLAN

SMART SCALE | APPLICANT WORKFLOW

2. Include Need in Justification

- Ensure that as an applicant you not only select a segment or node (location) but also references the Need and associated project components in the project justification(s).

Need Justifications

Corridors of Statewide Significance

Need Id	Need Location	Need Categories	Justification
103603	I-64E	Congestion, Limited Access TDM (New or expanded park and ride facilities, rail and public transportation services and facilities, and commuter assistance programs)	Project will improve Congestion by extending accel/decel lanes at Exit 199

Regional Network

Need Id	Need Location	Need Categories	Justification
100424	FR-157N: N Military Hwy	Bicycle Access, Pedestrian Access, Non-limited Access TDM (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)	Includes pedestrian accommodations, crosswalk and pedestrian signals, at intersection with off-ramp at exit 199.

Urban Development

Need Id	Need Location	Need Categories	Justification
No Urban Development needs included.			

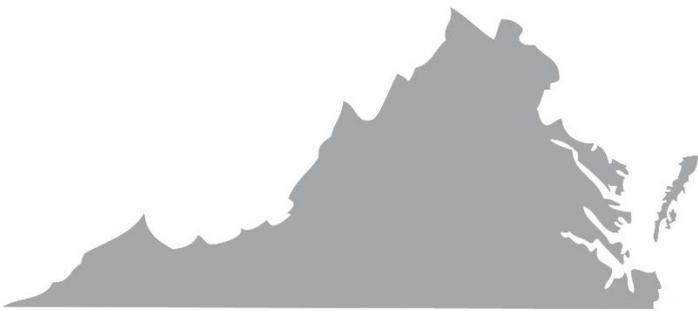
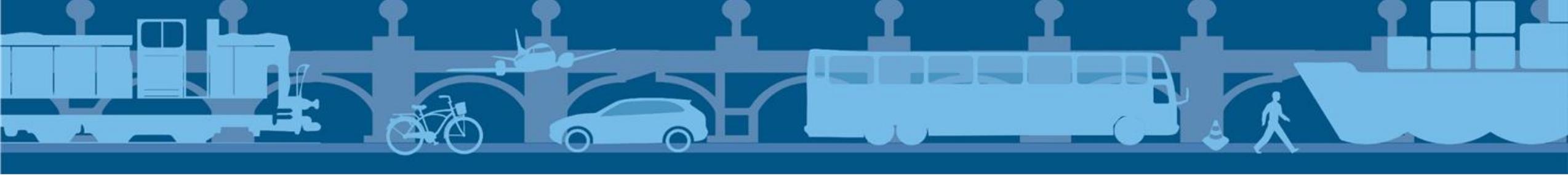
Safety

Need Id	Need Location	Need Categories	Justification
138271	US-13N: N Military Hwy	Pedestrian Safety Improvement	Includes pedestrian accommodations, crosswalks and pedestrian signals, that will improve safety at this location.

QUESTIONS/DISCUSSION

OIPI Staff Contact Information:

Name	Construction District Point of Contact	Phone	Email
Jitender Ramchandani		804.786.0868	Jitender.Ramchandani@oipi.Virginia.gov
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