



PROJECT PIPELINE

Program Overview

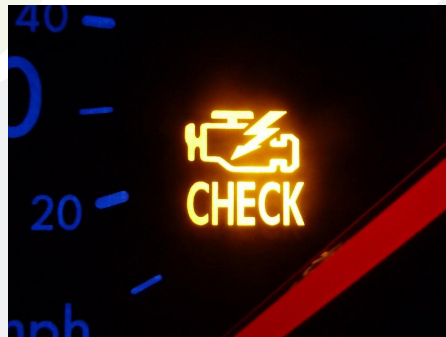


Program Purpose and Goals

- Focus on multimodal priorities established by the Commonwealth Transportation Board (CTB)
- Streamline project planning and improve project readiness
 - Ensure needs are understood before offering solutions
- Develop and refine tools that make use of powerful data and improve collaboration
- Identify investment strategies that solve more problems with limited state transportation funds and resources
- Institutionalize performance-oriented and multidisciplinary approach to project planning and development

Project Pipeline - Performance Based Planning

Going from this



New Engine



New Car



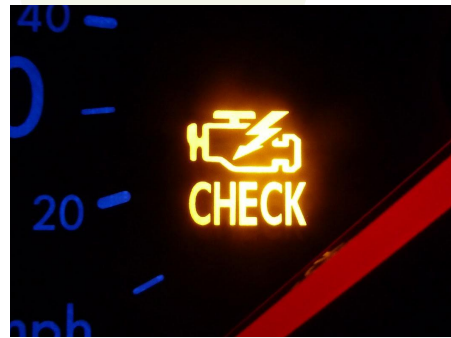
Project Pipeline - Performance Based Planning

To this

Understand the
problem



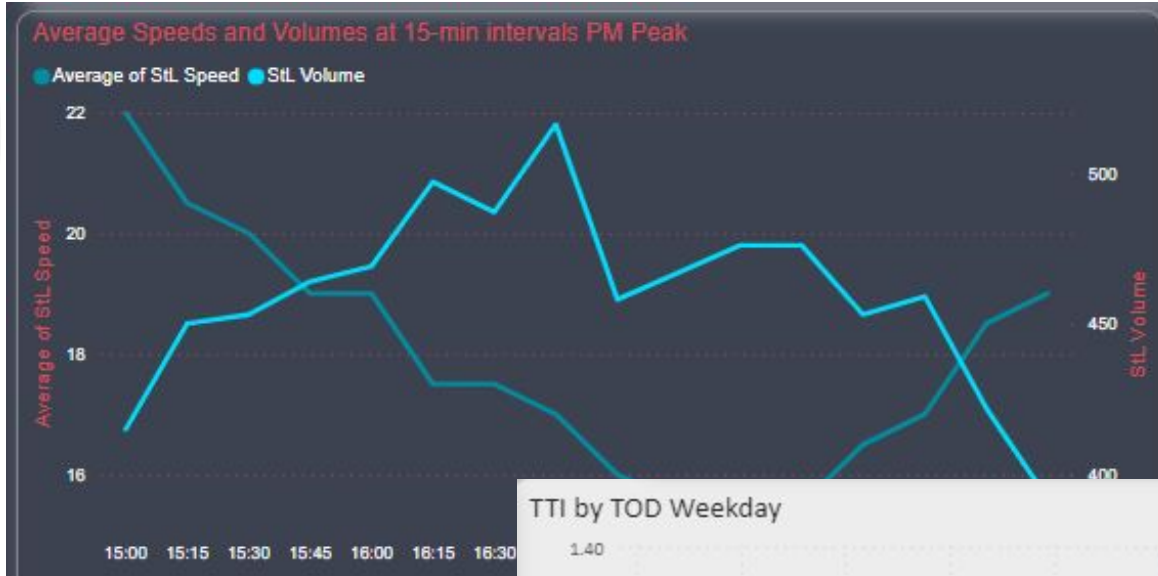
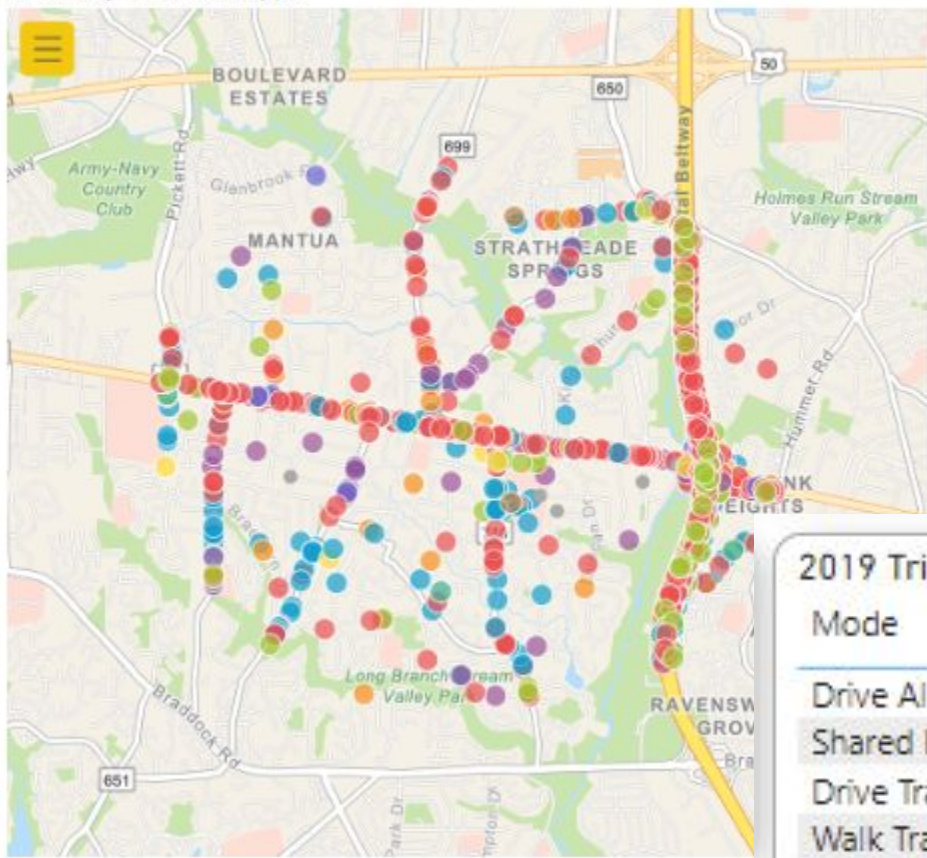
Develop/Test
Solutions



Project Pipeline - Improve Data Tools and Collaboration

Centralize data collection and leverage DASHBOARDS to streamline problem diagnosis

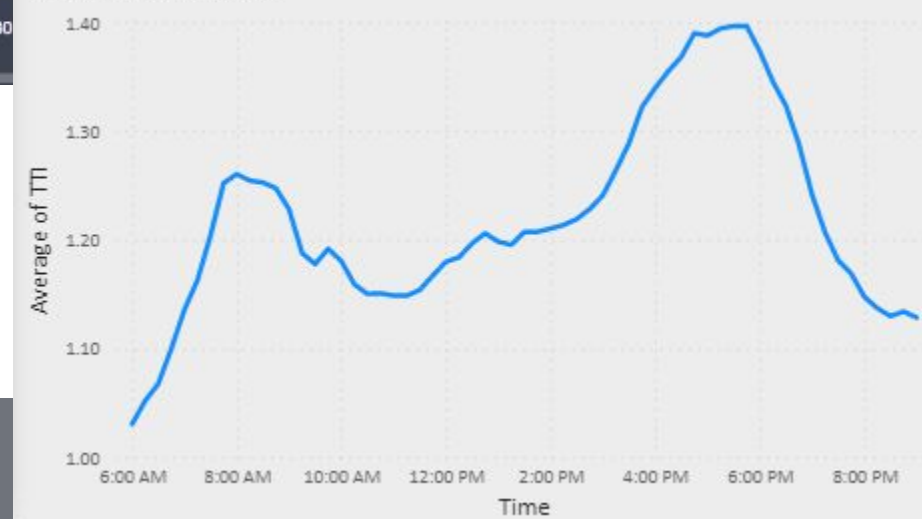
Crash by Collision Type



2019 Trip Productions by Mode

Mode	Trips	% Share
Drive Alone	17,343	78.8%
Shared Ride	2,569	11.7%
Drive Transit	1,216	5.5%
Walk Transit	884	4.0%
Total	22,012	100.0%

TTI by TOD Weekday



DIAGNOSIS AND PROBLEM IDENTIFICATION • TEAM 1 - TRAFFIC OPERATION AND ACCESSIBILITY ISSUES

Overall Level of Service (LOS)

LOS C or better		LOS C or better
LOS C or better		LOS D
AM		PM



Study Purpose, Goals, and Objectives

- Investigate mid-term (10-25 year) solutions to address operational and safety needs.
- Consider opportunities to improve pedestrian/bike accessibility. This location has a High TDM need in VTrans.

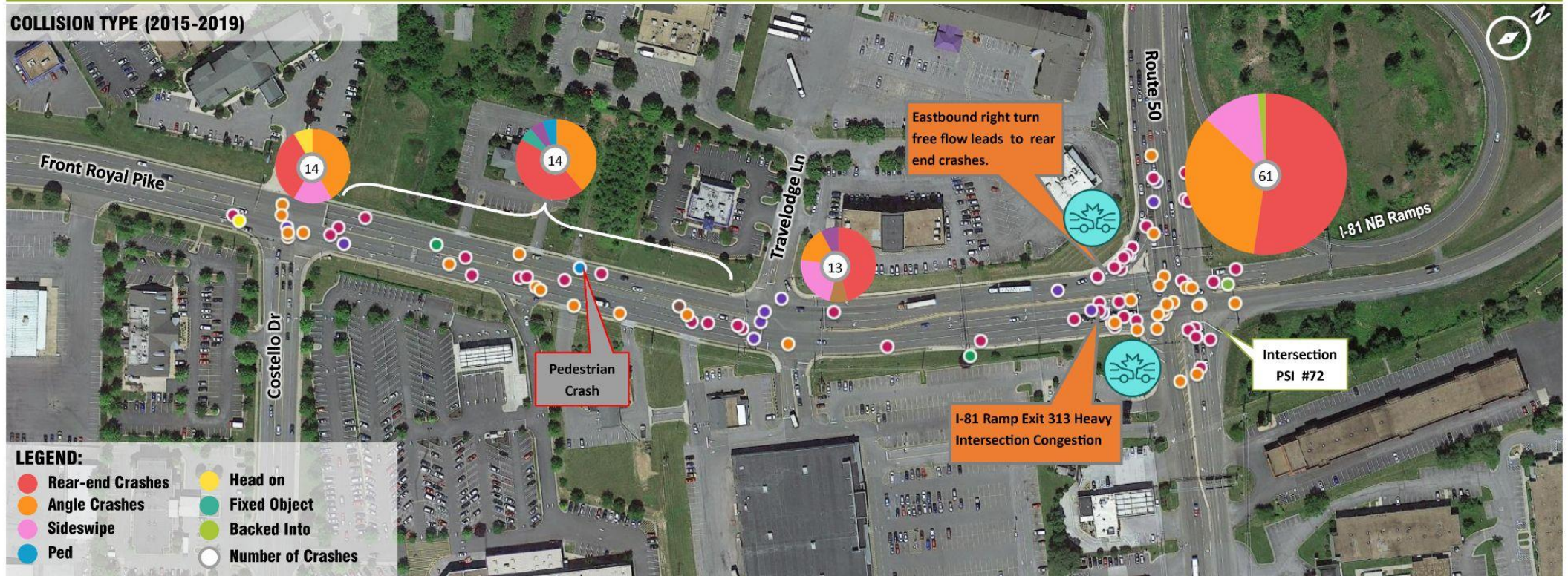
Existing Issues and Needs

- US 522 - Front Royal Pike corridor has a sidewalk on both sides, however, many locations are not ADA compliant. US 50 - Millwood Pike lacks a sidewalk on both sides. The planned bridge replacement project will add sidewalk in the intersection area, but it will not extend beyond the current project limits.
- The US 522 at Costello Drive southbound left-turn has a very high demand, especially during the PM Peak hour, with traffic destined for Costco. Future developments are expected to increase this traffic movement as well.



DIAGNOSIS AND PROBLEM IDENTIFICATION • TEAM 2 - TRAFFIC SAFETY AND RELIABILITY NEEDS

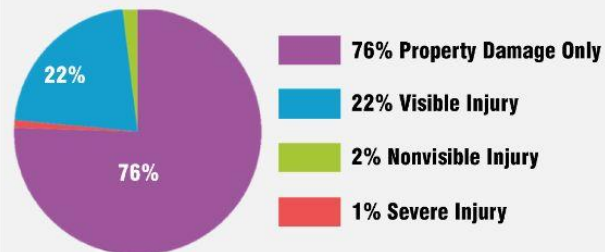
COLLISION TYPE (2015-2019)



LEGEND:

- Rear-end Crashes
- Angle Crashes
- Sideswipe
- Ped
- Head on
- Fixed Object
- Backed Into
- Number of Crashes

CRASH SEVERITY



	2015	2016	2017	2018	2019
A. Severe Injury	0	0	0	1	0
B. Visible Injury	6	3	5	1	7
C. Nonvisible Injury	0	0	1	1	0
PDO. Property Damage Only	11	21	19	12	14
Total	17	24	25	15	21



Rear-end crashes are the primary crash type along the corridor. Significant patterns include the right-turn from US-50 EB to US-522 SB. Additionally, many crashes occurred along the segments between signals, indicating access management needs.

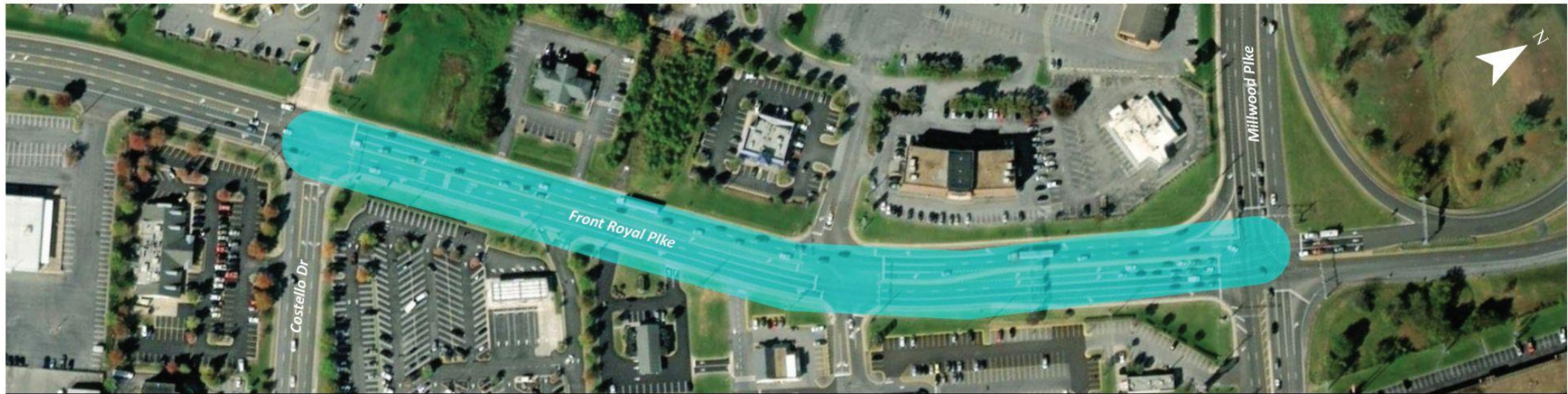


There are six access points on the segment between Travelodge Ln and Costello Dr. Intersections that generally do not meet Access Management Standards. And multiple entrances on Route 50 within functional area of the intersection.









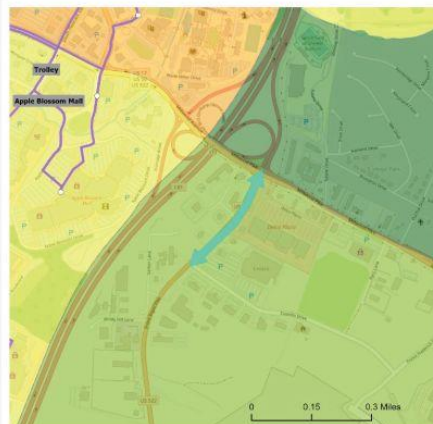
Reliability is measured by variability in travel time along a corridor and the data shows the travel time variability is low.

DIAGNOSIS AND PROBLEM IDENTIFICATION • TEAM 3 - RELIABILITY (RAIL), TRANSIT, TDM NEEDS

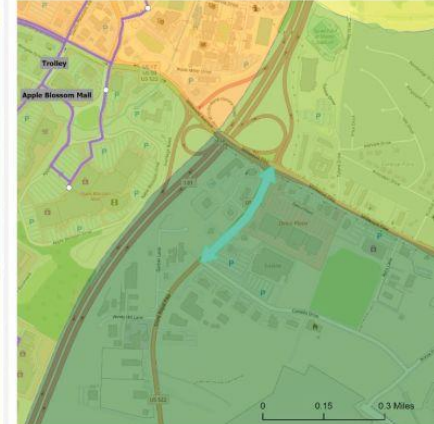


Existing Conditions

-  No rail infrastructure
-  Northern Shenandoah Valley RC's RideSmart
-  No park and rides in area
-  No bikesharing or scooter programs
-  No transit in corridor
-  No transit infrastructure in corridor



Transportation Infrastructure All-Day Service Index
 The All-Day Service Index identifies locations suitable for all-day transit service by combining the results of the Transit-Oriented Population and New-Work Indices. At both peak and off-peak hours, locations with significant transit-oriented populations are presumed to require connections to and from jobs or non-work-related trip destinations. This results in a propensity index that identifies major origins or destinations for transit trips that would occur throughout the day.



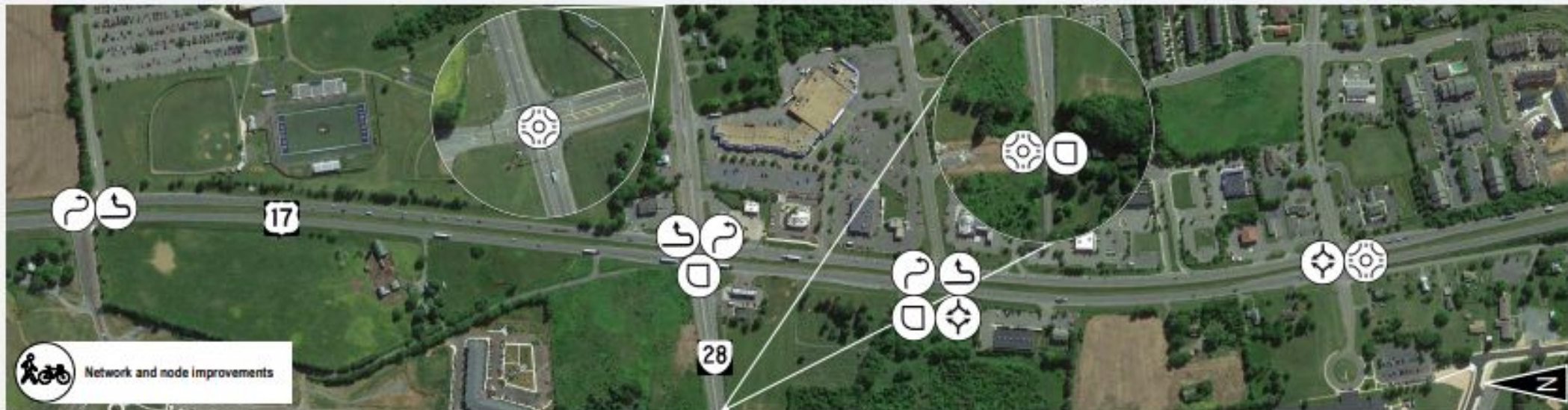
Transportation Infrastructure Peak Commuter Index
 The Peak Index identifies locations suitable for peak-hour service by combining results from the Commuter and Workplace Indices. Locations with significant numbers and densities of commuters are presumed to require connections to and from locations with significant numbers and densities of jobs, especially at peak hours. This results in a propensity index that identifies major origins or destinations for transit trips that would occur during peak hours.



Transportation Infrastructure Transit Potential
 A separate analysis entirely from Transit Propensity, Transit Potential combines population and employment densities for each Census Block Group to indicate the viability of fixed-route services in an area. In general, regions with a density of at least five jobs plus people per acre relatively may be better suited to support fixed-route transit service; areas with densities lower than five jobs plus people per acre may be better suited to support...

Preliminary Ideas Overview : Fauquier County

US 17 (Marsh Road) from Independence Avenue to Station Drive



Solutions are targeted to:

- Reduce delay along US 17
- Improve the safety along Route 28
- Mitigate risk of rear-end collisions by improving stop-and-go traffic
- Improve access and mobility by improving existing bike / pedestrian network



Thru-cuts



Reduced Conflict Intersection



Quadrant Roadway



Roundabouts



Median U-Turns (MUT)

Phase 1

- **Broad analysis** to understand problems (VTrans needs) and the causes
- Develop range of possible alternatives to improve performance

Phase 2

- Stakeholders/Public engagement and feedback
- Sketch level analysis to narrow options then detailed analysis
- Planning level estimates and identify preferred alternatives

We are here

Phase 3

- Refine investment strategy to understand risks and estimate project costs
- Finalize multimodal investment strategy/deliverables



Virginia Department of Transportation

Sponsored

Help us improve travel in your community. Provide feedback on potential transportation safety improvements along Route 11 (S. Main St.) between Pleasant Valley Rd. and Mosby Rd.

P PROJECT PIPELINE PLANNING FOR PERFORMANCE



TAKE THE SURVEY TODAY

ADMOCKUPS.COM

We want to hear from you!

Take Survey

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Comment

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Survey Overview

Shenandoah Valley Rail-Trail Survey

→ Update Project Website

⚙ Survey Settings

Demo: <http://demo.metroquestsurvey.com/p9t1f>

Project Website: <https://www.virginiadot.org/ShenValleyRailT...>

Phase 6: Analyze

What to do now:

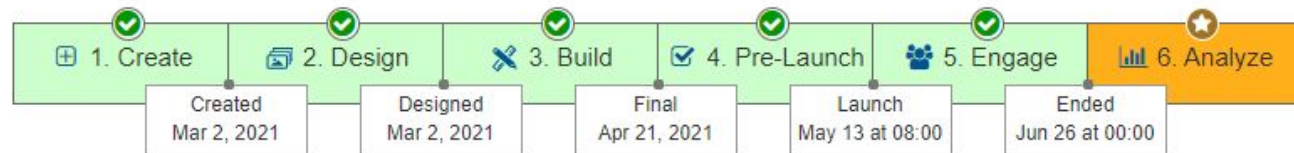
This engagement is complete.
Total participants: 9266

Over 9,000 survey participant in recent trail survey in Staunton

→ Data Center

Phase Schedule

→ Manage Schedule



Screens

View Screenshots



Welcome

Standard Survey

Priority Ranking

Map Marker

Wrap Up

Project Pipeline

For more information visit:

vaprojectpipeline.org