

PROJECT PIPELINE NEEDS AND EXISTING CONDITIONS SUMMARY

VA Route 42 from Gay Street to Harrisonburg City Limits VDOT District: Staunton / Locality: City of Harrisonburg

ST-25-01 Sheet 1 of 2



Study Purpose, Goals, and Objectives

To analyze the operational and safety issues identified on the segment of Virginia Avenue (VA Route 42) from Gay Street to the Harrisonburg City Limits, with a focus on safety improvements and maintaining vehicle capacity.

VTrans Needs



Capacity Preservation (Keep traffic flowing smoothly)



Safety Improvement



Pedestrian Safety Improvement



Transportation Demand Management (TDM)



Pedestrian Access



Bicycle Access



Transit Access

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- Bike and pedestrian demand driven by nearby residential developments, the Virginia Mennonite Retirement Community (VMRC), and Eastern Mennonite University.
- Significant pedestrian crash presence and patterns, especially at VA-42 and 3rd Street.
- Limited active transportation facilities discontinuous sidewalk, missing crosswalks, no bike lanes, no shared-use paths along VA-42.
- Existing shared-use path along Mt. Clinton Pike.

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Major Study Intersections

Gay St, 3rd St, Edom Rd, Mt. Clinton Pike, Acorn Dr, Harman Rd/Harmony Dr

Length of Study Area

2.6 miles

Classification

Other Principal Arterial

VA-42 2022 AADT

 $13,000 (Gay St - 5^{th} St)$ 12,000 (5th St – Mt. Clinton Pike)

(Average Annual Daily

13,000 (Mt. Clinton Pike – Sharon Ln)

Traffic)

9,600 (Sharon Ln – City Limits)

Speed Limit

45/35 mph

Summary of Needs Identified Through Public Outreach

- Survey date: May 5th May 19th, 2025
- Number of participants: 783
- 87% commute daily or weekly
- Highest ranked needs: corridor/intersection safety, reducing traffic congestion, pedestrian safety and accessibility, speeding/aggressive driving
- Mode(s) of travel: Personal vehicle (97%), walking (31%), cycling (25%)
- Speeding/aggressive driving and lack of sidewalks/missing sidewalks were identified by participants as the greatest safety issues in the study area

Transit and TDM Needs

- Harrisonburg City Bus Route 5 currently runs along VA-42, with stops at VMRC and a mobile home community near Parkwood Drive.
- Additional transit infrastructure is not planned for the study area.







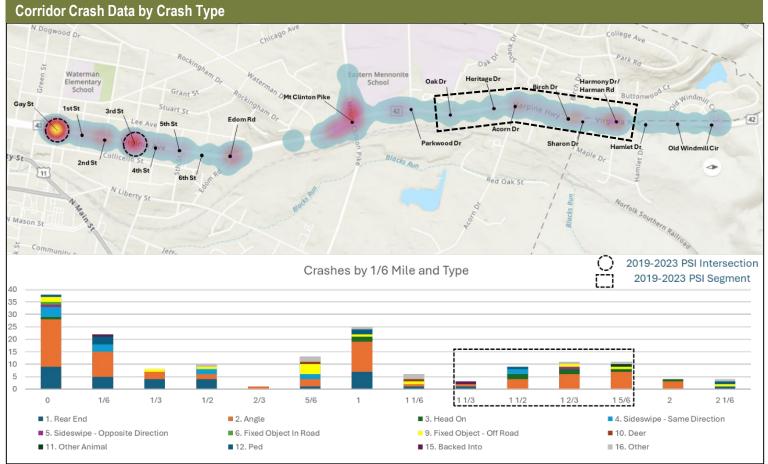




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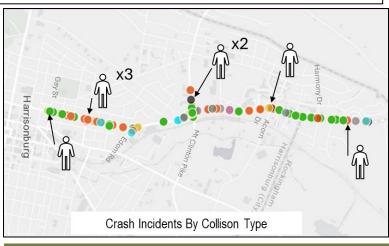
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ST-25-01 Sheet 2 of 3



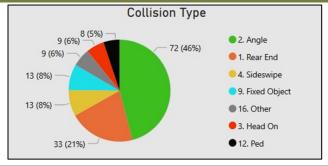
Safety Needs

- Seventy-two (72) angle crashes and thirty-three (33) rear end crashes occurred within the study corridor between 2020 and 2024.
- Two (2) fatal crashes occurred along the corridor, both involving vehicles crossing VA-42, one at the intersection with 5th Street, the other at the intersection with Sharon Lane.
- Eight (8) pedestrian crashes occurred within the study area, with three (3) occurring within the same crosswalk at the intersection of VA-42 and 3rd Street. Two (2) also occurred at a driveway near the intersection of VA-42 and Mt. Clinton Pike.



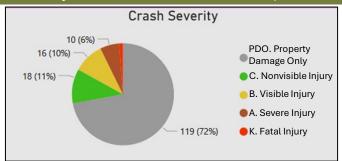
Crash Type

165 Total Crashes (2020 – 2024)



Crash Severity

165 Total Crashes (2020 - 2024)













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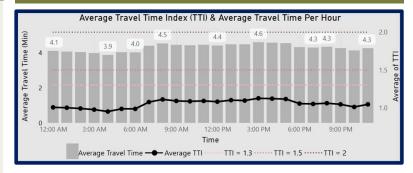
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ST-25-01 Sheet 3 of 3

Operations Summary

- Congestion was not identified as a VTrans need within the study area.
- Queues at the intersection of VA-42 and Mt. Clinton Pike extend beyond adjacent driveways, causing visibility and safety issues.
- Southbound traffic merges from two lanes to one at the intersection of VA-42 and Edom Road, causing potential safety issues and imbalanced southbound lane usage from Mt. Clinton Pike to Edom Road.

Travel Time Index*





*Travel Time Index (TTI) is the ratio of the travel time during the referenced time period to the travel time during typical conditions. For example, a TTI of 1.5 means a trip takes 50% longer than it would in free-flow conditions.

Concepts Under Consideration

- VA-42 & Gay Street
 - · Conventional intersection reconfiguration
 - Roundabout
- VA-42 & 1st Street through 4th Street
 - · Add pedestrian crossings with curb extensions at all intersections
- VA-42 & 3rd Street
 - Improve signing for side street left turns yielding to pedestrians
 - Reconfigure pavement markings and street parking to allow space for left turn lanes
- VA-42 & 5th Street
 - · Install pinch point extension as a speed reduction measure on VA-42 southbound
 - · Install planter median through the intersection to reduce speeds and prohibit left turns at the intersection
- VA-42 & Edom Road
 - Remove the Edom Road approach stop controlled left turn lane and replace with hatched pavement marking to accommodate truck movements.
 - Reconfiguration of the southbound merge from two lanes to one lane between VA-42 & Edom Road and VA-42 & Mt. Clinton Pike
- VA-42 & Mt. Clinton Pike
 - Conventional signal phasing changes and intersection reconfiguration
 - · Investigate access management near the intersection.
- VA-42 & Acorn Drive
 - Reduced Conflict Intersection (RCI)
 - Roundabout
- Segment between VA-42 & Acorn Drive and VA-42 & Harman Road/Harmony Drive
 - · Pedestrian improvements and turn lane modifications
 - · Convert the existing two way left turn lane to a concrete median
- VA-42 & Harmon Road/Harmony Drive
 - · Conventional modifications
 - Roundabout







