



PROJECT PIPELINE NEEDS AND EXISTING CONDITIONS SUMMARY

Railroad Avenue at US 460 and Front Street / 2nd Street
VDOT District: Bristol / Locality: Town of Richlands

BR-25-03
Sheet 1 of 4

Study Area: US 460 / Railroad Avenue / Big Creek Road Interchange



VTrans Needs

Safety Improvement

Safety Needs



Study Area:

- 12 total crashes (2020-2024)
- 10 crashes occurred from 12:00 pm to 6:00 pm
- 58% of crashes (7 crashes) involved senior (65+) drivers
- 75% of crashes (9 crashes) were angle collisions caused by a vehicle turning left from the exit ramps (6 at westbound ramps and 3 at eastbound ramps); all injury crashes from the past five years occurred from this movement

Westbound US 460 Ramps at Big Creek Road:

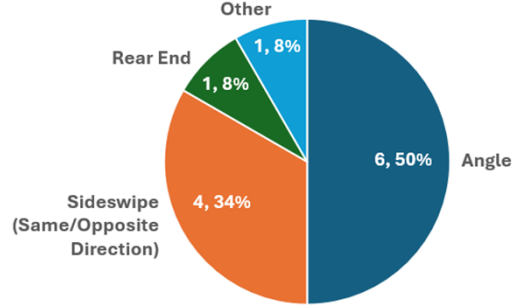
- Identified as one of the highest Potential for Safety Improvement (PSI) intersections in Bristol District; PSI rank 99
- 42% of crashes (5 crashes) are associated with southbound left, with 2 crashes resulting in a visible injury (B) and one resulting in a nonvisible injury (C)
- All intersecting approaches have medium need priority for Construction District Safety improvement

Study Purpose, Goals, and Objectives

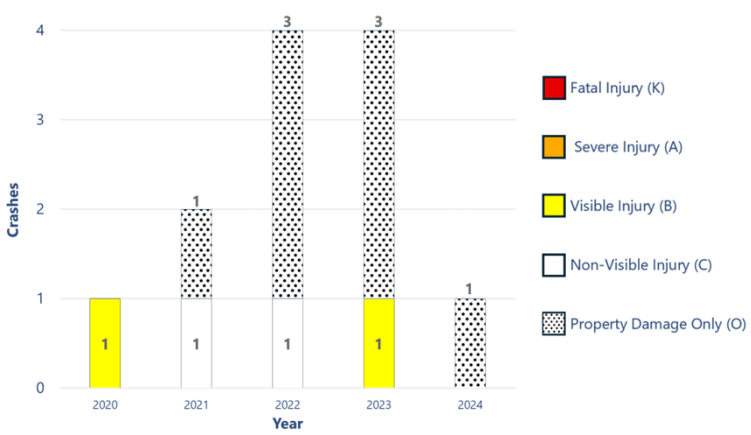
To address road safety improvement needs at the US 460 and Railroad Avenue / Big Creek Road interchange. Recommendations will be developed for SMART SCALE Round 7 funding applications.

Study Facts

Major Study Intersections	3
Length of Study Area	0.1 mile
Classification	Principal Arterial (US 460) Urban Minor Arterial (Railroad Avenue) Major Collector (Big Creek Road)
2023 AADT (Average Annual Daily Traffic)	Big Creek Road: 1,800 Railroad Avenue: 2,400 US 460 Ramps: 4,100
Speed Limits	Big Creek Road / Railroad Avenue: 25 MPH
Crash Type	12 Crashes (2020 – 2024)



Crash Severity 12 Crashes (2020 – 2024)





PROJECT PIPELINE NEEDS AND EXISTING CONDITIONS SUMMARY

Railroad Avenue at US 460 and Front Street / 2nd Street

VDOT District: Bristol / Locality: Town of Richlands

BR-25-03

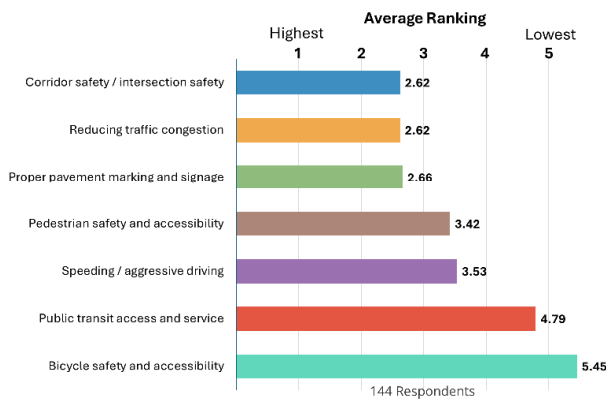
Sheet 2 of 4

Study Area: US 460 / Railroad Avenue / Big Creek Road Interchange

Summary of Needs Identified Through Public Outreach

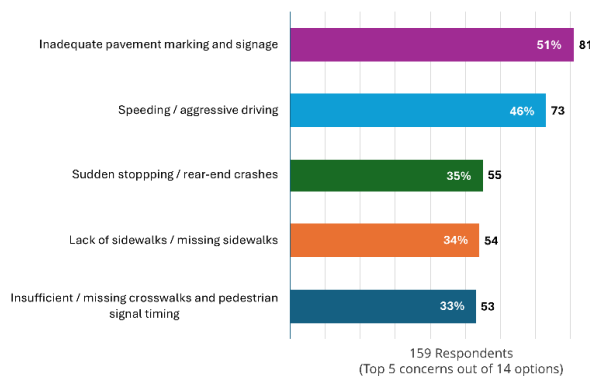
- Survey date: May 27 – June 10, 2025
- Number of participants: 250
- Mode(s) of travel: Personal vehicle (99%, 140 respondents), walking (9%, 14 respondents), truck/commercial vehicle (7%, 10 respondents)
- All survey respondents agreed that safety improvements were needed within the study area
- Highest ranked needs: corridor/intersection safety, reducing traffic congestion, and proper markings/signage

Rank the following needs in order of importance to you for the area on Route 67 at the Route 460 Exit 2 ramps.



- Inadequate pavement marking and signage was identified as the top safety concern. Respondents requested signage/markings on Railroad Avenue before 2 to 1 lane change and on US 460 before off ramp
- Speeding and aggressive driving was identified as the second highest safety concern among respondents

Which of the following safety issues concern you for the area of Route 67 at the Route 460 Exit 2 ramps? (Check all that apply)



- Survey respondents voiced concerns on roadway maintenance. They cited potholes and damage from large vehicles within the study area

Operations Summary and Congestion Needs

- Network peak hours: 7:30-8:30AM, 4:15-5:15PM
- No significant LOS/delay or queues at any intersections, longest estimated queue occurred for the westbound left-turn movement at the Westbound US 460 Ramps at Big Creek Road intersection at 71 feet in the PM peak hour
- Survey respondents shared that traffic is busy during midday and the afternoon, and during school/work hours, which corresponds with the network peak hours
- Travel time index for the study area is below the minor congestion threshold of 1.3

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.

Proposed Solutions to Evaluate in Phase 2



Safety Improvements

- ① Roadway modifications and striping improvements to mitigate limited sight distance and better delineate turning paths



PROJECT PIPELINE NEEDS AND EXISTING CONDITIONS SUMMARY

Railroad Avenue at US 460 and Front Street / 2nd Street

VDOT District: Bristol / Locality: Town of Richlands

BR-25-03

Sheet 3 of 4

Study Area: Front Street and 2nd Street from Kents Ridge Road to Front Street / 2nd Street Intersection



VTrans Needs

	Congestion Mitigation
	Safety Improvement
	Transportation Demand Management (TDM)

Safety Needs

Study Area:

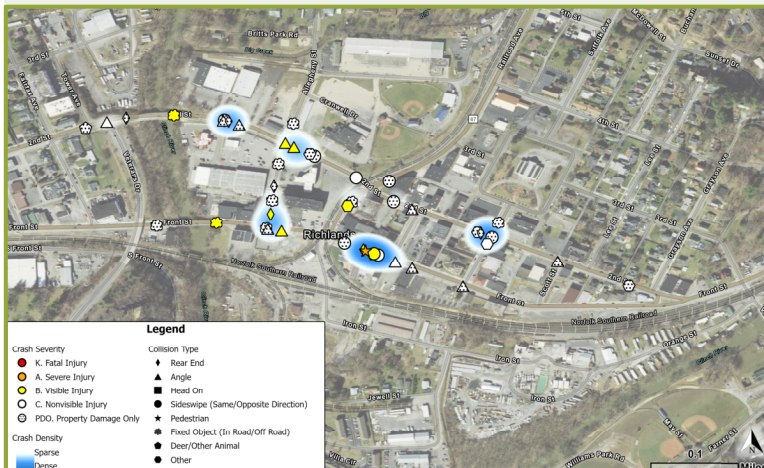
- 44 total crashes (2020-2024)
- 36% of crashes (16 crashes) involved senior (65+) drivers
- 15 crashes resulted in an injury, including 1 pedestrian severe injury crash
- 5 crashes caused by drivers making left turns from the wrong lane
- 6 crashes occurred involved parked or parking vehicles; 4 crashes on Front Street involved parked vehicles; 2 crashes on Suffolk Avenue involved a vehicle backing out of angled parking

2nd Street:

- Identified as one of the highest Potential for Safety Improvement (PSI) corridors in Bristol District; PSI rank 53

Front Street:

- Front Street and Norfolk Street intersection is one of the highest PSI intersections in Bristol District; PSI rank 134

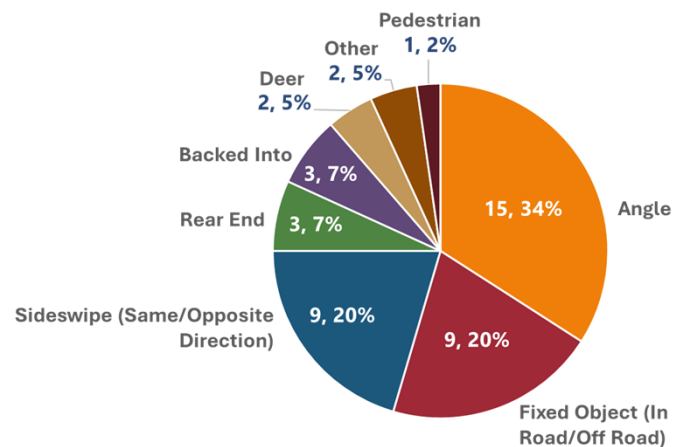


Study Purpose, Goals, and Objectives

To address congestion mitigation needs on 2nd Street; road safety improvement needs on Front Street, 2nd Street, and Norfolk Street; and transportation demand management (TDM) on Front Street and 2nd Street. Recommendations will be developed for SMART SCALE Round 7 funding applications.

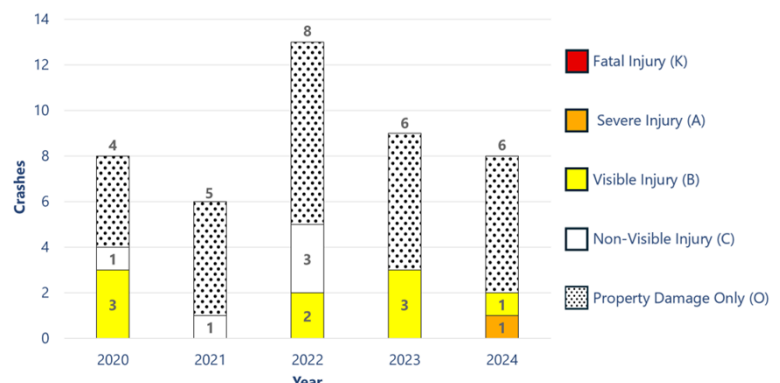
Study Facts

Major Study Intersections	12
Length of Study Area	0.5 mile (Front Street) 0.5 mile (2nd Street)
Classification	Urban Minor Arterials
2023 AADT (Average Annual Daily Traffic)	Front Street: 2,800; 4,500 2nd Street: 2,300; 4,900
Speed Limit	25 MPH
Crash Type	44 Crashes (2020 – 2024)



Crash Severity

44 Crashes (2020 – 2024)





PROJECT PIPELINE NEEDS AND EXISTING CONDITIONS SUMMARY

Railroad Avenue at US 460 and Front Street / 2nd Street

VDOT District: Bristol / Locality: Town of Richlands

BR-25-03

Sheet 4 of 4

Study Area: Front Street and 2nd Street from Kents Ridge Road to Front Street / 2nd Street Intersection

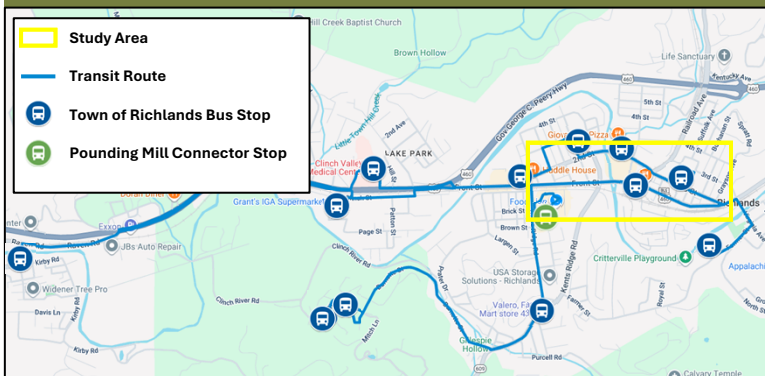
Summary of Needs Identified Through Public Outreach

- Survey date: May 27 – June 10, 2025
- Number of participants: 250
- Mode(s) of travel: Personal vehicle (98%, 87 respondents), walking (17%, 15 respondents), truck/commercial vehicle (13%, 12 respondents)
- Most respondents identified safety improvement (82%, 81 respondents) and congestion mitigation (61%, 60 respondents) as corridor needs
- Highest ranked needs: Pedestrian safety and accessibility, reducing traffic congestion, and corridor/intersection safety
- Inadequate pavement marking and signage was identified as the top safety concern. Respondents shared needs for proper lane markings and relining throughout the study area
- Insufficient/missing crosswalks and pedestrian signal timing was identified as the second highest safety concern
- Accessible pedestrian facilities, narrow and damaged sidewalks, and a lack of crosswalks were common concerns
- Most respondents identified weekday midday rush hour (9 am – 4 pm) and weekday afternoon rush hour (4pm – 7pm) as the top hours for experiencing congestion and mobility issues and noted that parking along Front Street and 2nd Street could be contributing to the congestion
- 53% of respondents (41 respondents) identified difficulty accessing businesses as a mobility issue

TDM Needs

- Front Street and 2nd Street have a low priority TDM need
- Front Street and 2nd Street are located on Corridors of Statewide Significance (CoSS)
- There is a need to accommodate the movement of people and goods via multiple modes of travel
- 3 transit stops in study area; 1-hour frequency
- Site visit and survey found that pedestrian facilities were in poor condition

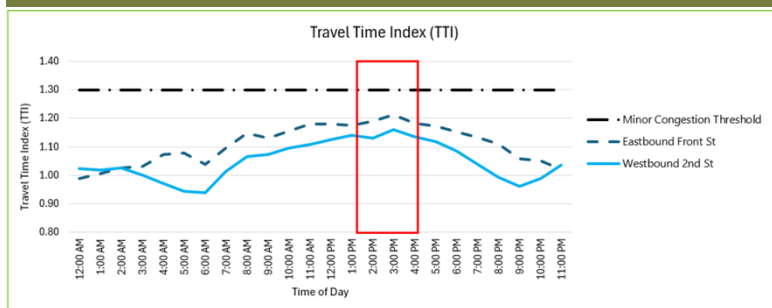
Town of Richlands Transit



Operations Summary and Congestion Needs

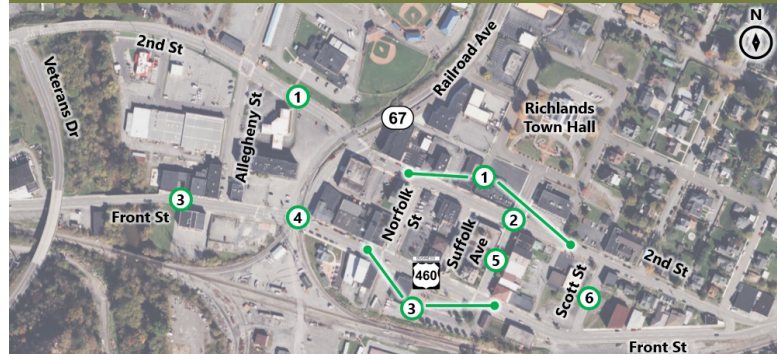
- Network peak hours: 7:30-8:30AM, 3:00-4:00PM, ADT data shows traffic volumes peak midday to afternoon
- No significant LOS/delay at any intersections
- No significant queue lengths at any intersections
- Turning movement count data shows northbound through movements at the Front Street and Railroad Avenue intersection despite Railroad Avenue being one-way southbound
- Travel time index for the study area is below the minor congestion threshold of 1.3

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.

Proposed Solutions to Evaluate in Phase 2



Safety Improvements

- 1 2nd Street roadway reconfiguration – one travel lane, parking, bumpouts
- 2 2nd Street / Suffolk Avenue traffic signal improvements
- 3 Front Street roadway reconfiguration – one travel lane, parking, bumpouts
- 4 Front Street / Railroad Avenue / Iron Street improvements
- 5 Suffolk Avenue roadway reconfiguration – one travel lane and widened parking
- 6 Scott Street two-way roadway reconfiguration with parking