



US 17/360 (TAPPAHANNOCK BOULEVARD/CHURCH LANE) CORRIDOR STUDY

Public Meeting

October 14, 2021

GoToWebinar CONTROLS

US 17/360 Corridor Study Public Meeting

[Add to Calendar](#)

1. Click the link to join the webinar at the specified time and date:

Thu, Oct 14, 2021 6:30 PM - 8:30 PM EDT

[Join Webinar](#)

Note: This link should not be shared with others; it is unique to you.

Before joining, be sure to [check system requirements](#) to avoid any connection issues.

2. Choose one of the following audio options:

TO USE YOUR COMPUTER'S AUDIO:

When the webinar begins, you will be connected to audio using your computer's microphone and speakers (VoIP). A headset is recommended.

--OR--

TO USE YOUR TELEPHONE:

If you prefer to use your phone, you must select "Use Telephone" after joining the webinar and call in using the numbers below.

United States: +1 (562) 247-8422

Access Code: 415-322-107

Audio PIN: Shown after joining the webinar

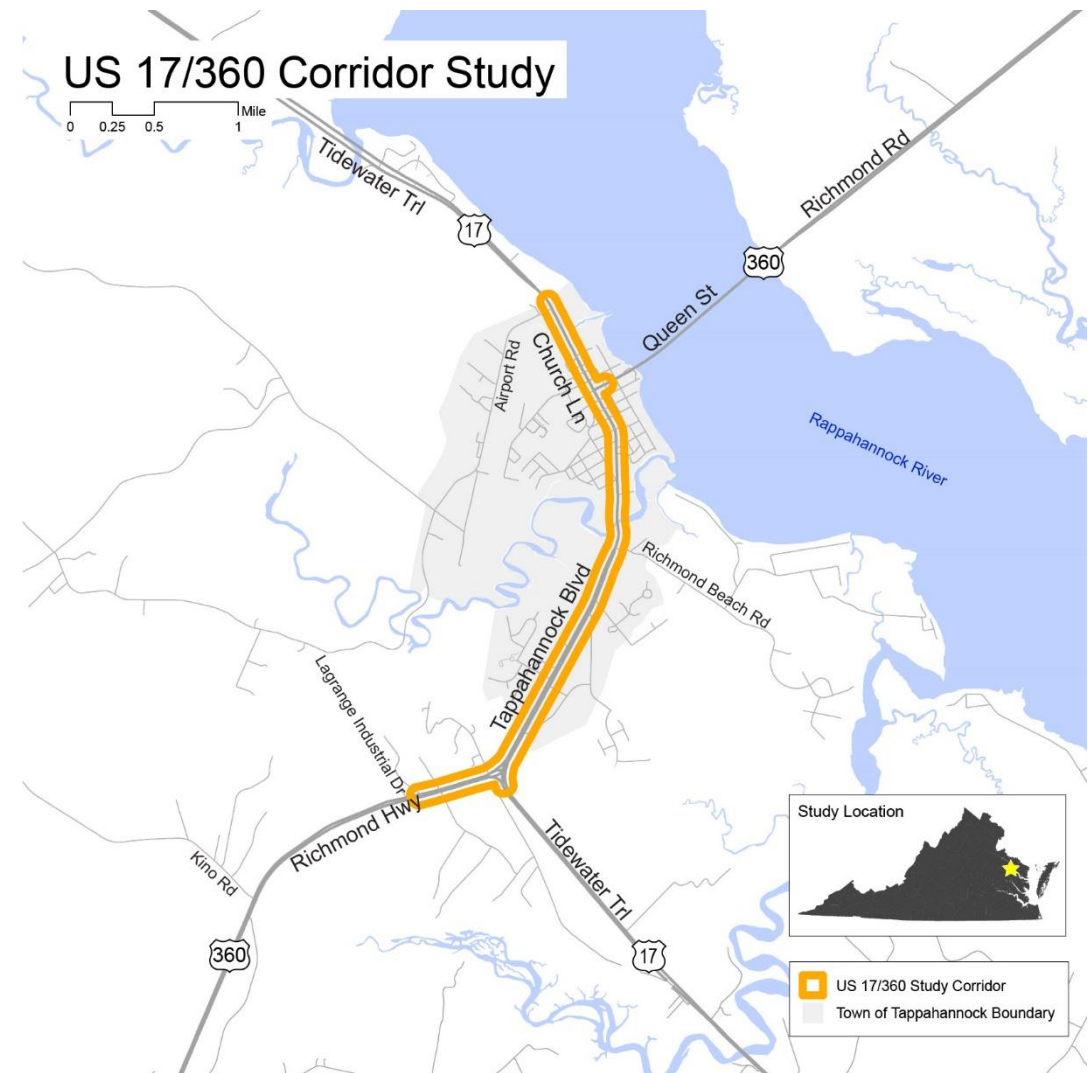
The screenshot shows the GoToWebinar interface with several controls highlighted by red arrows and text labels:

- Mute/unmute yourself:** Points to the microphone icon in the top-left control bar.
- Raise your hand:** Points to the hand icon in the top-left control bar.
- View questions & answers:** Points to the 'Questions' section in the bottom-right panel, which displays an 'Audience Question' and its answer.
- Type questions:** Points to the text input field in the bottom-right panel.

The interface also shows audio settings (Computer audio, Phone call, No audio), microphone and speaker selection, and a status bar at the bottom indicating the session is being recorded.

PRESENTATION OUTLINE

- Why is VDOT studying US 17/360?
- What are the issues?
- What are the possible solutions?
- How would the recommendations be funded?
- What are the next steps?

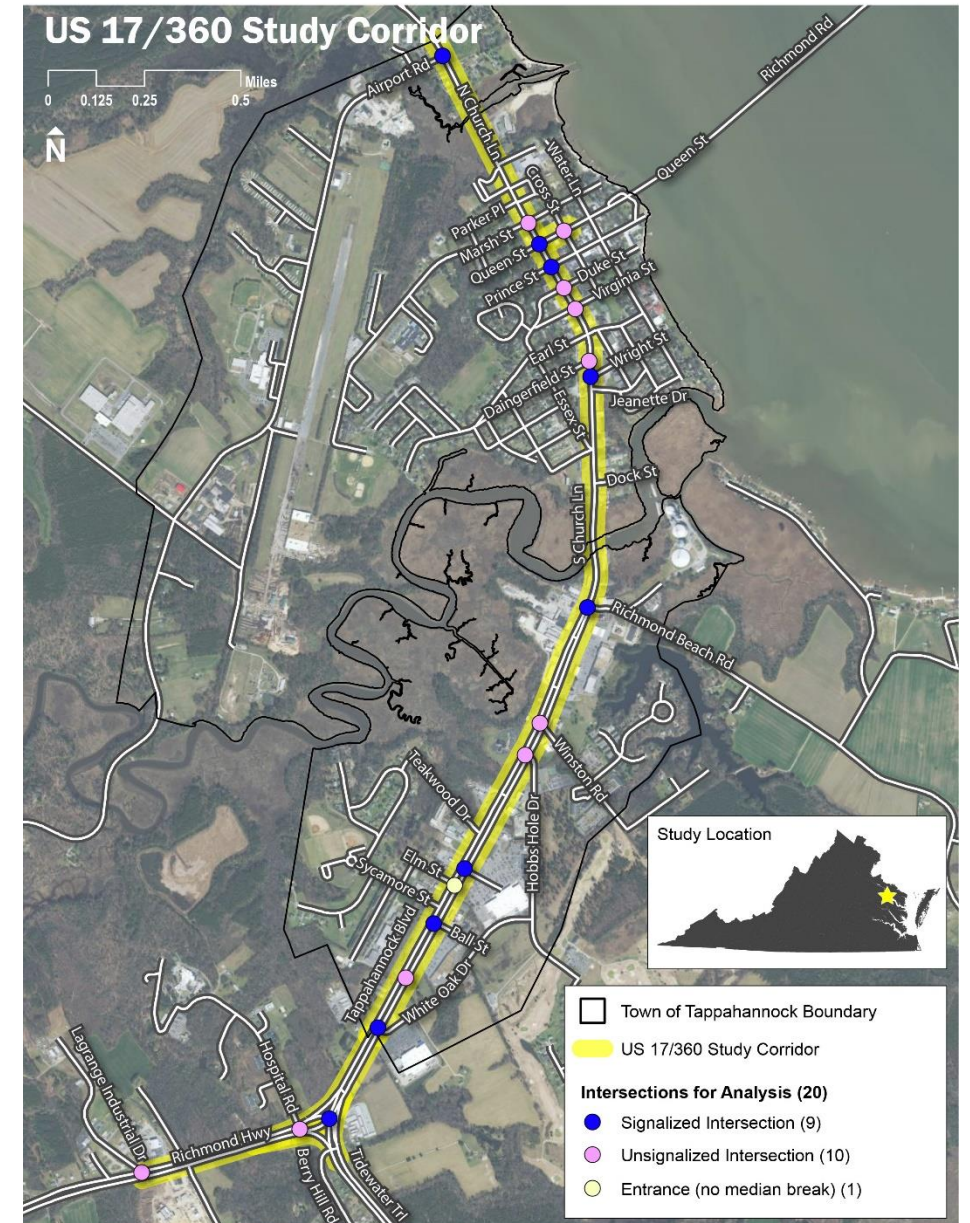


WHY IS VDOT STUDYING US 17/360 IN TAPPAHANNOCK?

The US 17/360 Corridor Study is a STARS project funded by VDOT in partnership with Essex County, the Town of Tappahannock, and the Middle Peninsula Planning District Commission.

US 17/360 STUDY CORRIDOR

- Airport Road to Lagrange Industrial Drive
- 3.5 miles long
- 5 intersections with Potential for Safety Improvements (PSI)
- 9 signalized intersections
- 11 unsignalized intersections
- Access Spacing Deficiencies

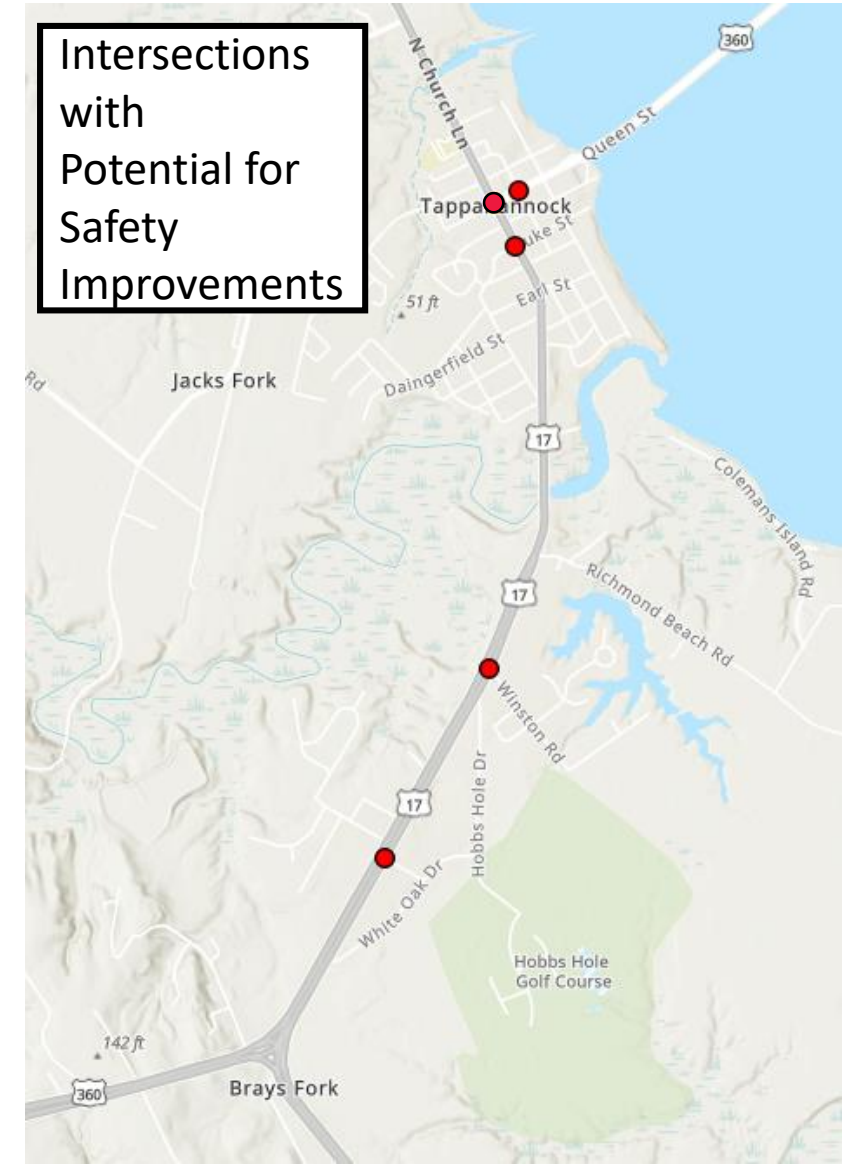
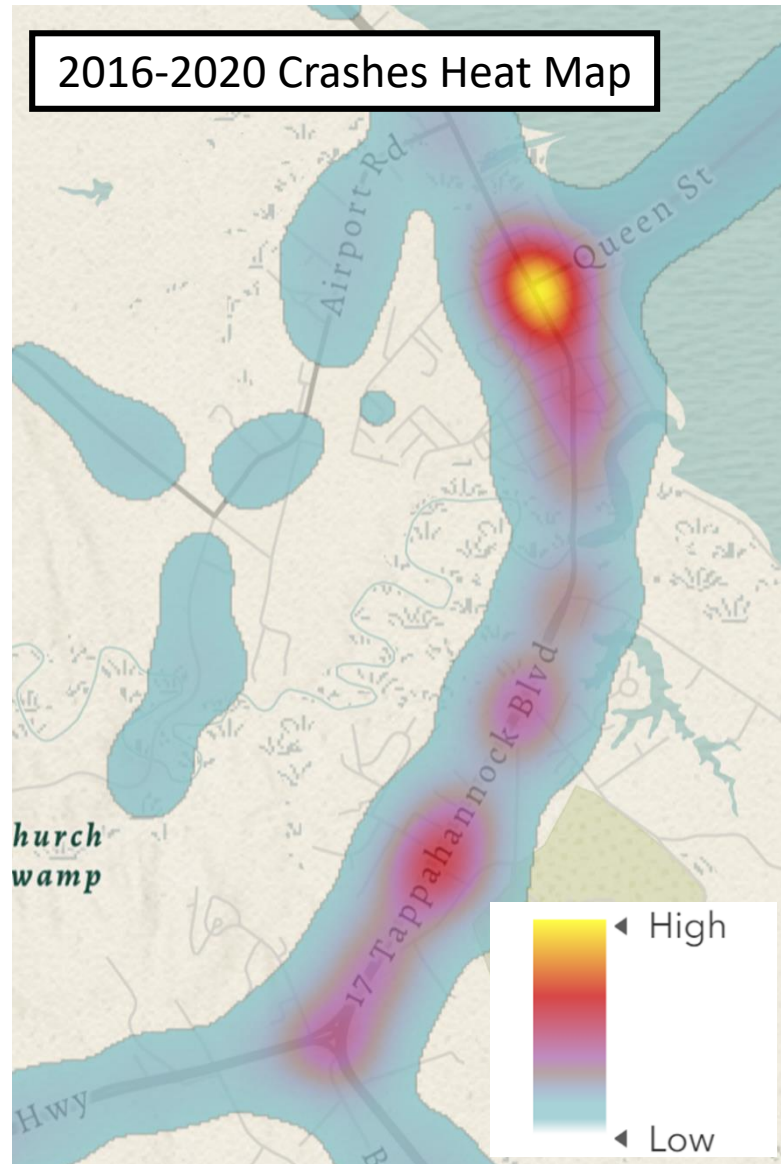


WHAT ARE THE ISSUES?

Issues have been identified with a combination of data and survey responses.

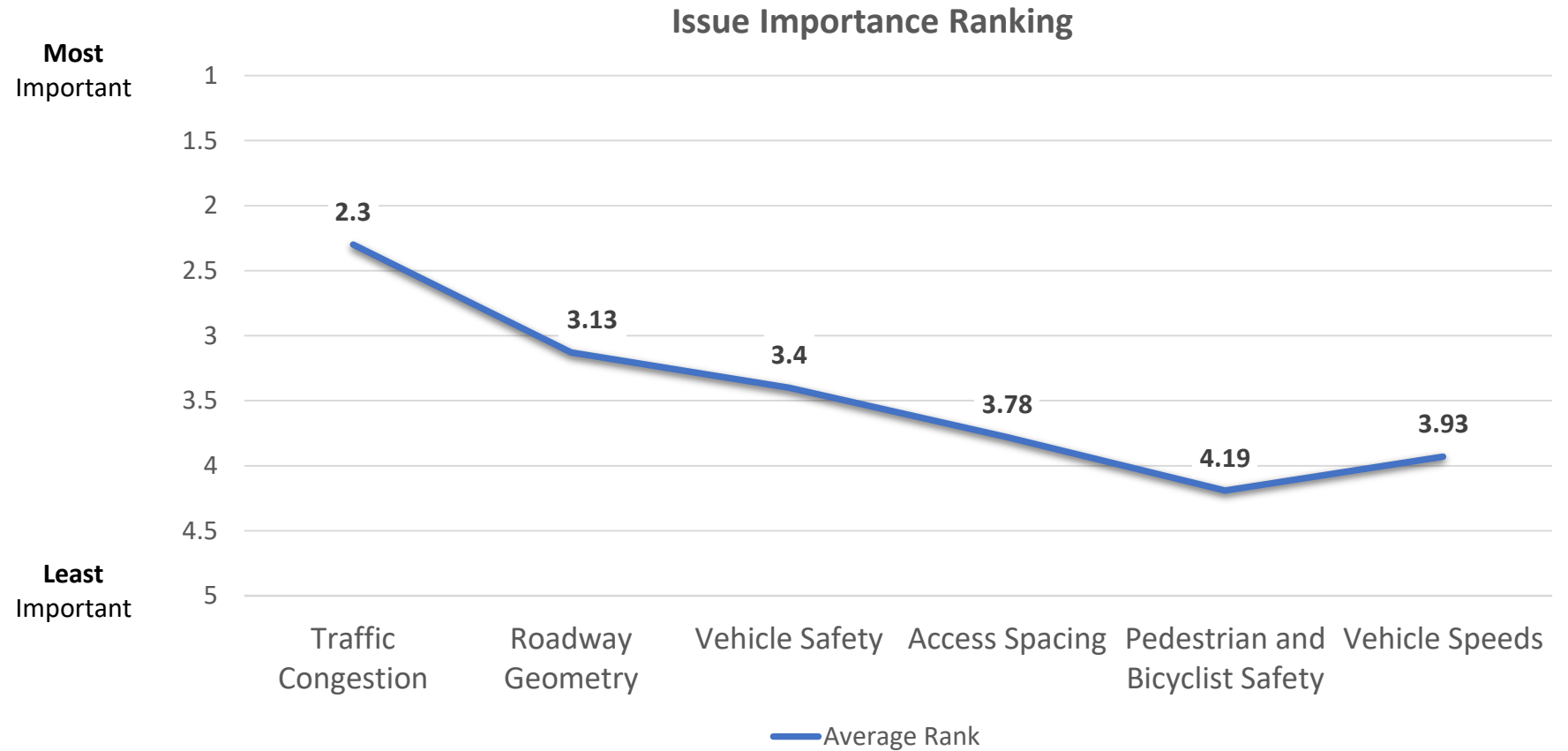
HIGH CRASH LOCATIONS

- Heat Map
- Potential for Safety Improvements (PSI): Locations where the crash frequency is greater than would be expected



METROQUEST SURVEY RESULTS

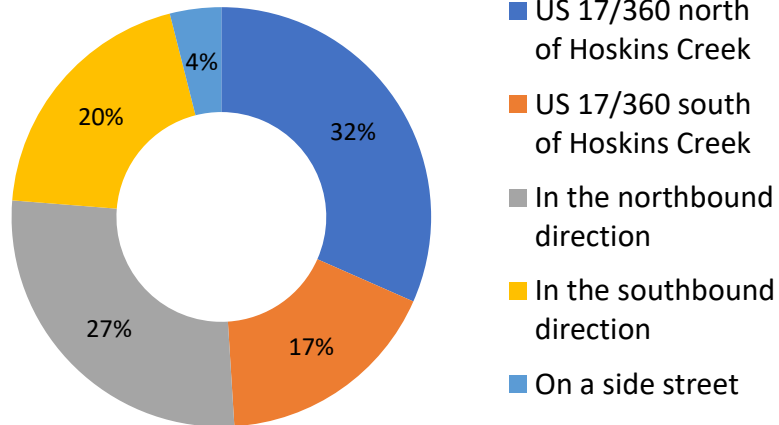
- **May 7-June 4 2021**
- **>1,100 participants**



METROQUEST SURVEY RESULTS: MAY 7- JUNE 4

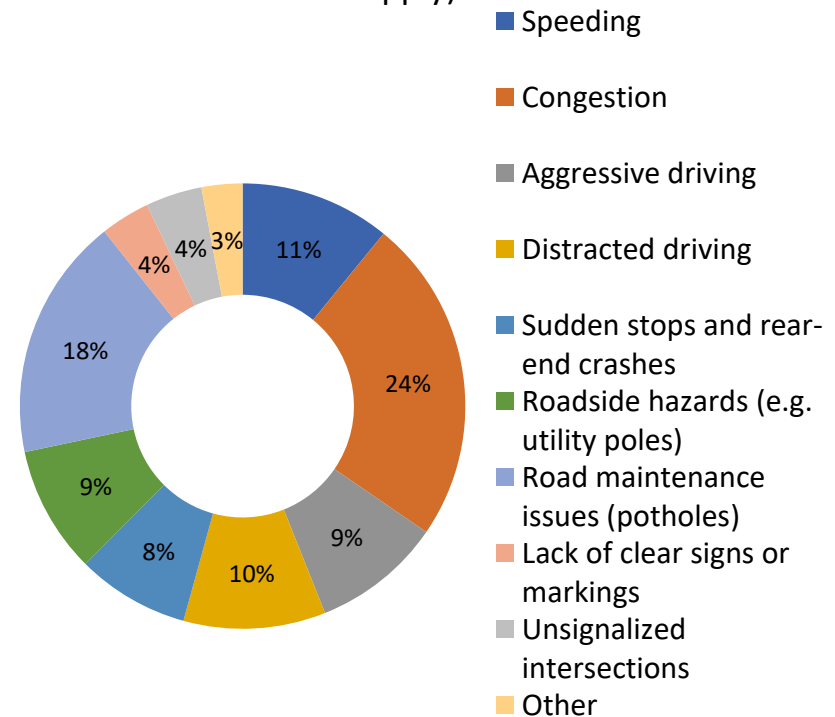
Congestion

Where was US 17/360 typically congested before COVID? (check all that apply)



Safety

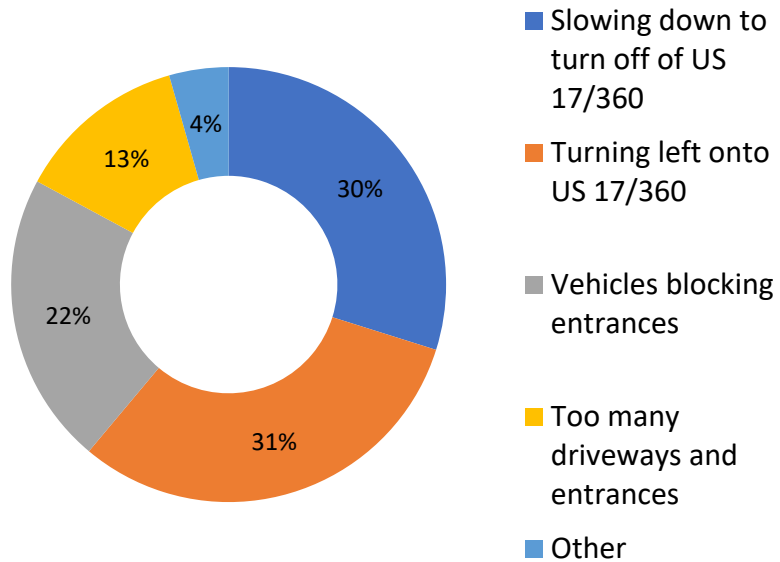
What safety issues did you experience on US 17/360 before COVID? (check all that apply)



METROQUEST SURVEY RESULTS: MAY 7- JUNE 4

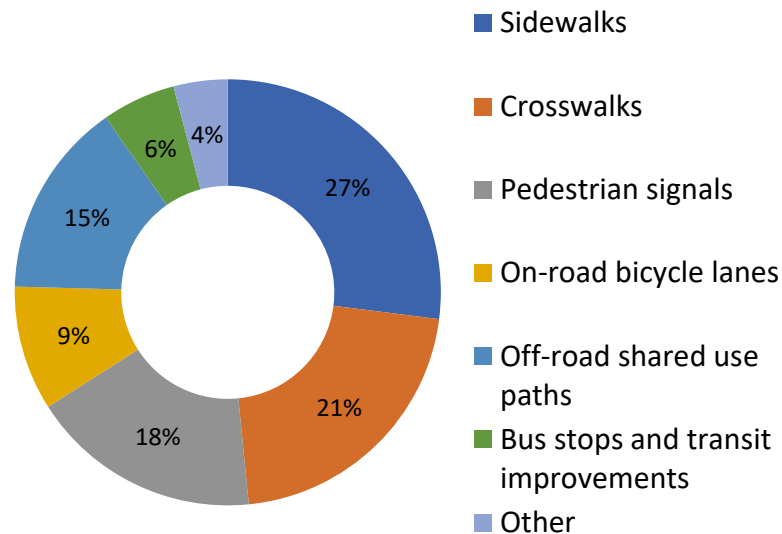
Access

What are the issues with driveways and entrances? (check all that apply)

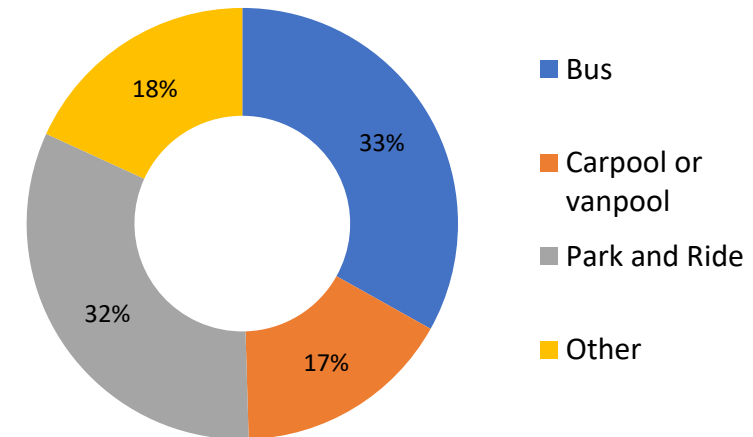


Multimodal

What improvements are needed on US 17/360 for walking and bicycling? (check all that apply)



What mode of transit is needed on US 17/360? (check all that apply)



METROQUEST SURVEY RESULTS: MAP EXERCISE

US 17/360 Corridor Study More at: https://www.virginiadot.org/projects/fredericksburg/route_17-and-route_360-corridor_study.asp

2
3
4
5

Map Exercise

Please drop at least 3 map markers.

23%

Safety

47%

Congestion

14%

Driveways & Entrances

7%

Walking & Bicycling

1%

Transit

7%

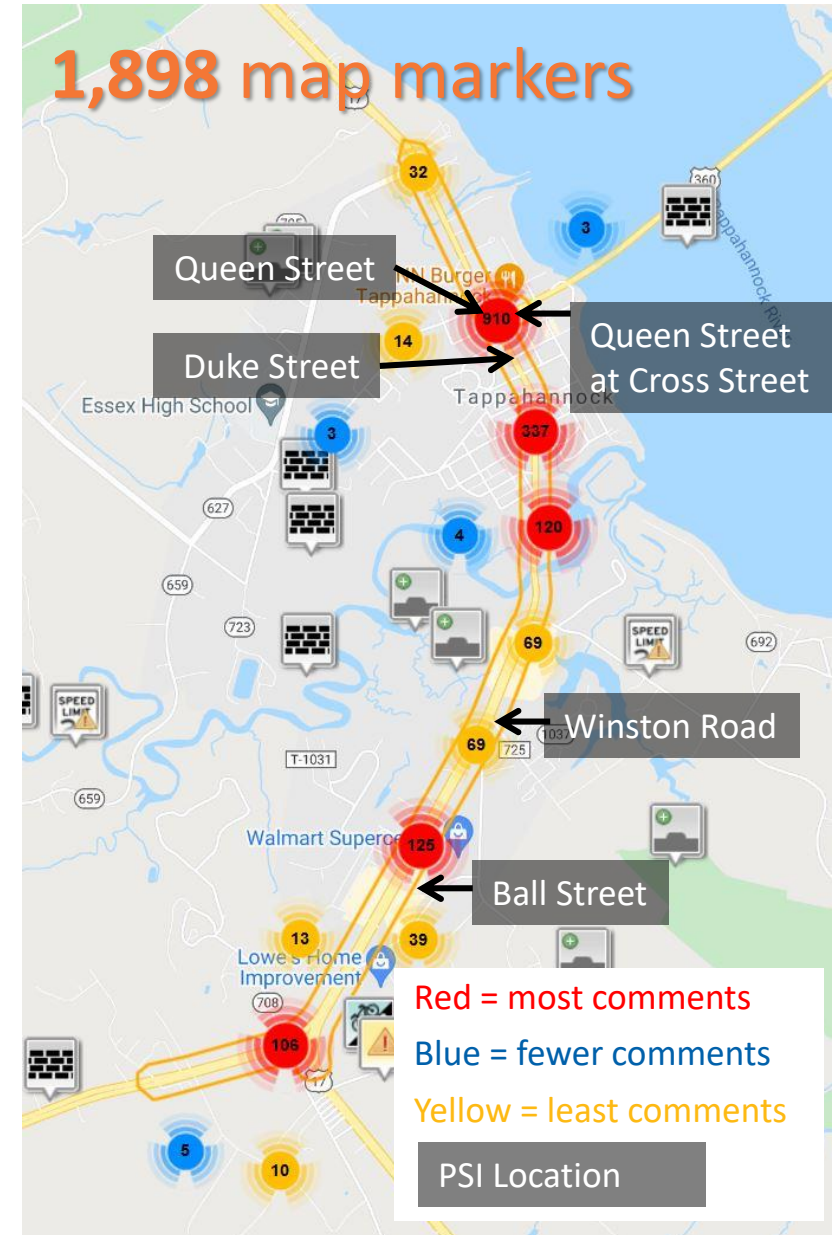
Other Issues

Map
Satellite

[Keyboard shortcuts](#) | [Map Data](#) | [Terms of Use](#)

Thank You!

[Privacy](#) - [About MetroQuest](#)



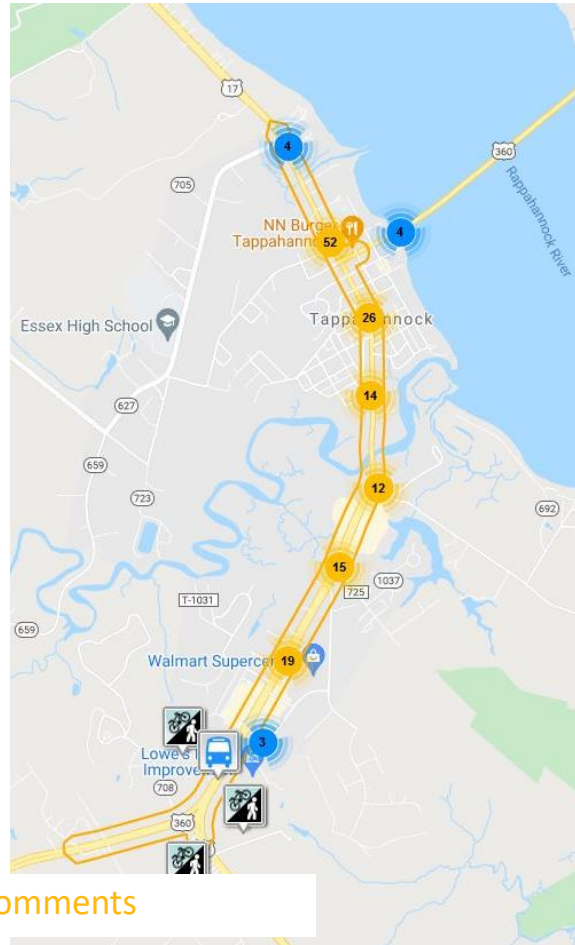
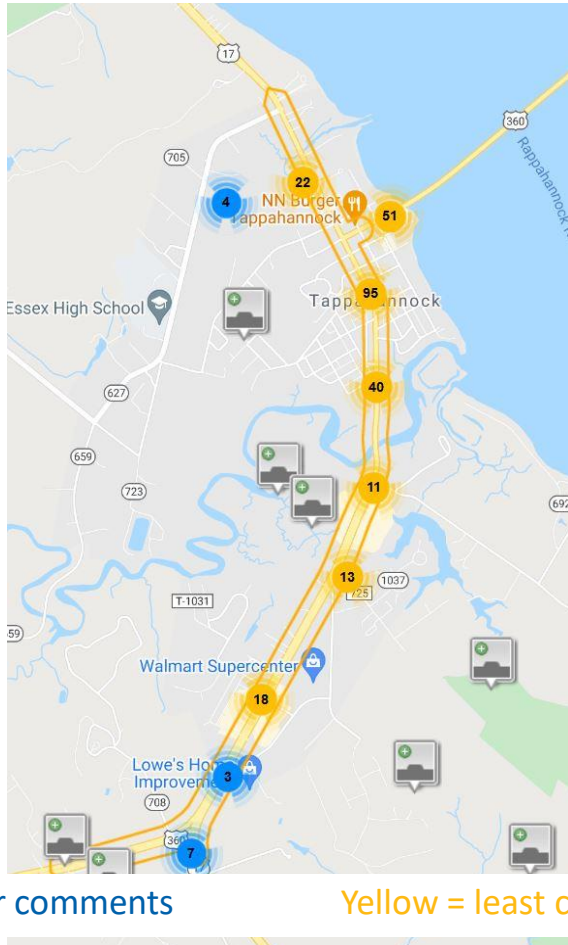
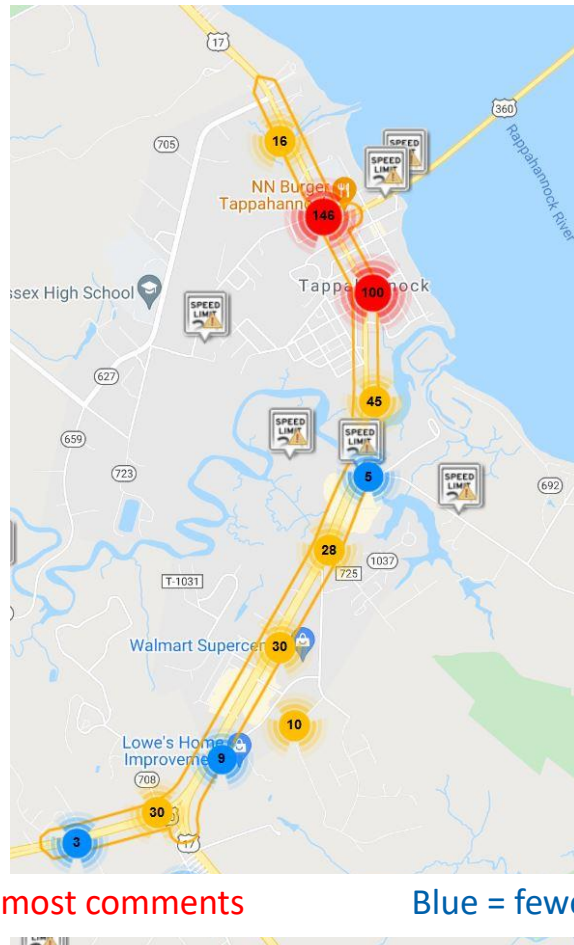
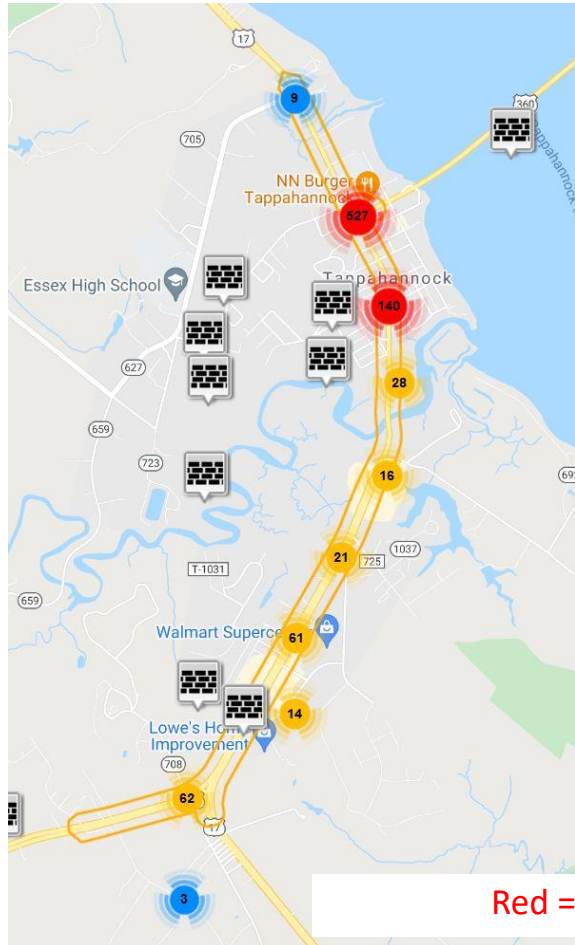
METROQUEST SURVEY RESULTS: MAP EXERCISE

Congestion: 900

Safety: 440

Driveways & Entrances: 275

Bike/Ped & Transit: 158

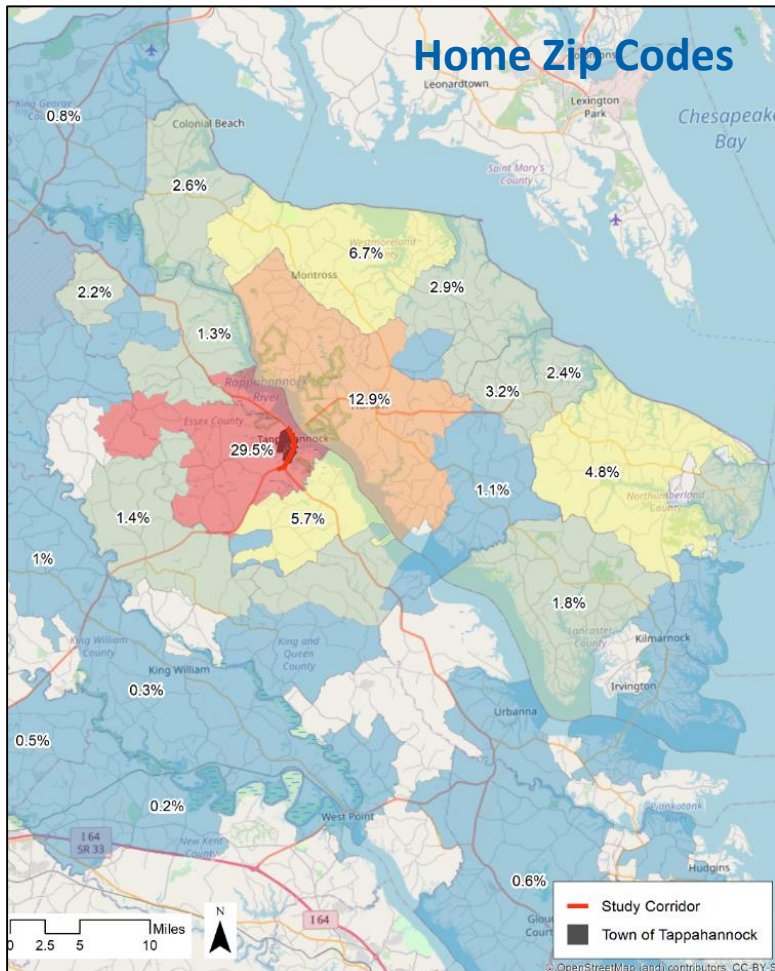


Red = most comments

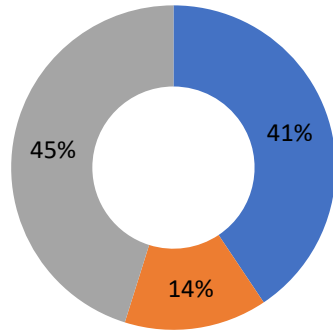
Blue = fewer comments

Yellow = least comments

METROQUEST SURVEY RESULTS: DEMOGRAPHICS

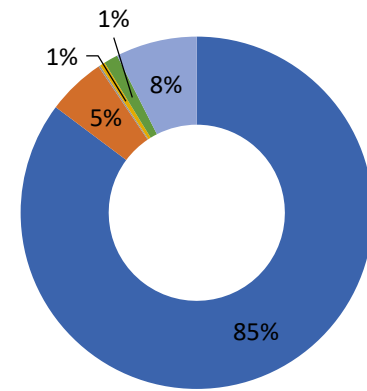


Do you live or work near US 17/360?



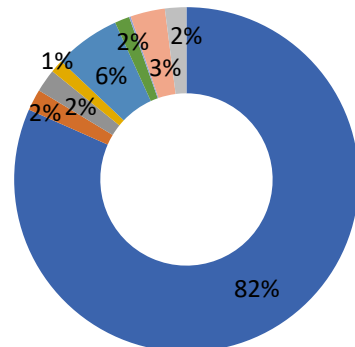
- Live within 5 miles of Tappahannock
- Work within 5 miles of Tappahannock
- Do not live or work nearby

How would you describe your race?



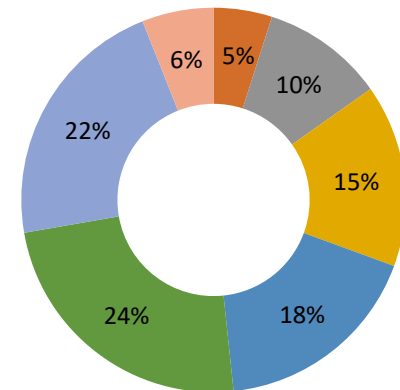
- White (Non-Hispanic)
- Black or African American
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Pacific Islander
- Hispanic/Latino
- Other

How did you find out about this survey?



- Facebook
- Twitter
- Newspaper
- Nextdoor
- Internet
- VDOT / Project Website
- Television or Radio
- Friend or colleague
- Other

What is your age group?



- 0-17
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75 or older

SUMMARY OF ISSUES

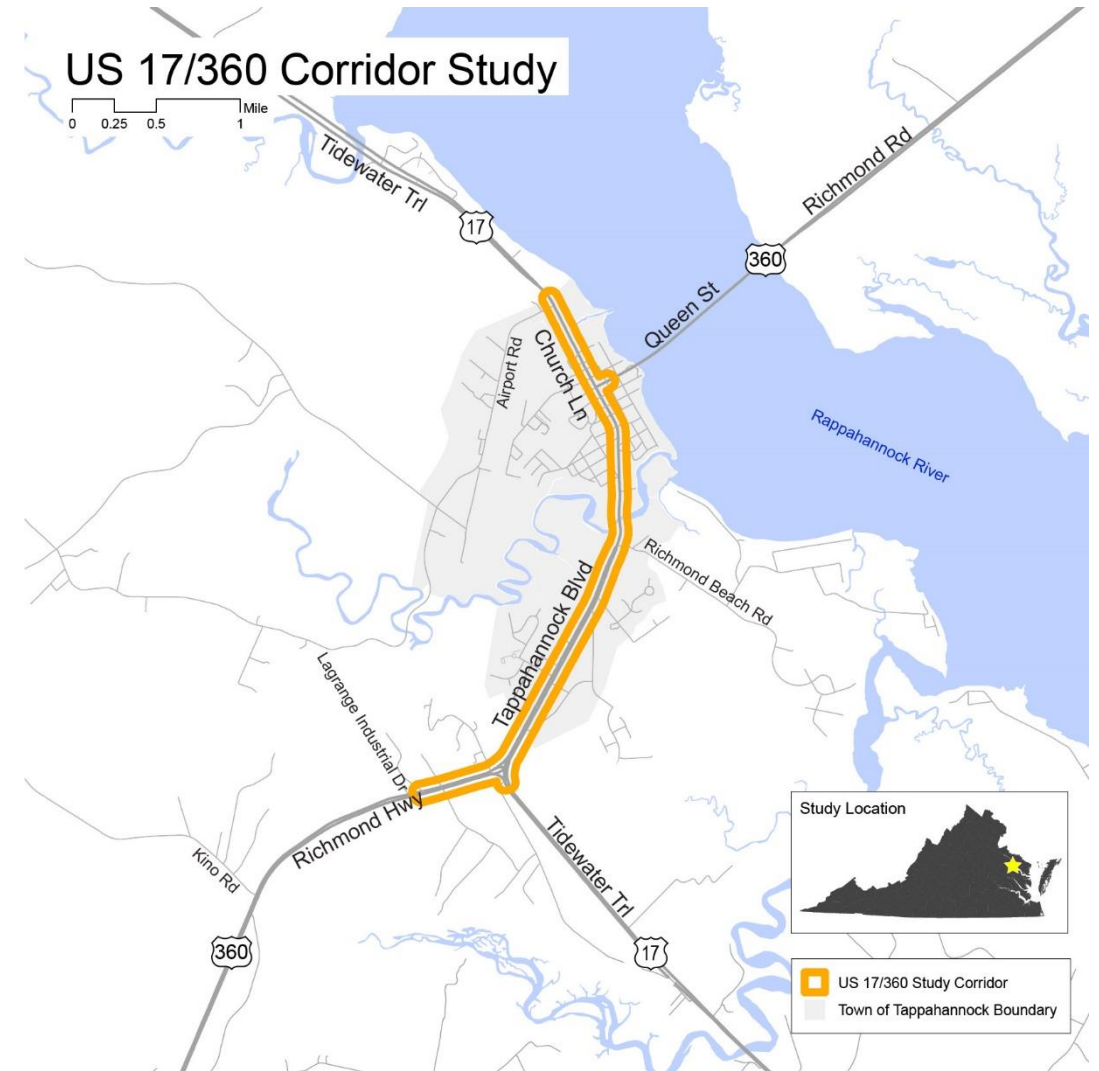
- Crash clusters reveal a need for improvements at intersections
- Access spacing deficiencies create high number of conflict points and crash potential
- Congestion in Downtown Tappahannock
- Heavy truck traffic
- Narrow travel lanes
- Infrequent pedestrian crossings and sidewalk gaps
- Survey responses consistent with crash data and findings from analysis of existing traffic conditions



WHAT ARE THE POSSIBLE SOLUTIONS?

POSSIBLE SOLUTIONS

- **Downtown Tappahannock**
 - One-Way Pairs
 - Partial Quadrant
- **US 17/360 at Brays Fork**
 - Continuous Green-T
 - Roundabout
- **South of Hoskins Creek**
 - Median Modifications
 - Pedestrian Improvements
 - Access Modifications



POSSIBLE SOLUTIONS: DOWNTOWN TAPPAHANNOCK

DOWNTOWN TAPPAHANNOCK ISSUES TO ADDRESS

- **High crash frequency**
 - Queen Street/Church Lane
 - Queen Street/Cross Street
 - Church Lane/Duke Street
- **Congestion**
- **Heavy truck traffic**
- **Narrow travel lanes and sidewalks**



CONGESTION

- Most significant at Queen Street/Church Lane intersection
- Back-ups extend through adjacent intersections



DOWNTOWN TAPPAHANNOCK SOLUTIONS CONSIDERED

- **Conventional Turn Lane Improvements**
- **Road Diet: One lane per direction**
- **Road Diet: Two lanes northbound, one lane southbound**
- **Quadrant Roadways**
 - Southeast area: 3 options
 - Northeast area
 - Cross Street
 - Water Lane
- **One-Way Pairs**
 - Cross Street
 - Water Lane



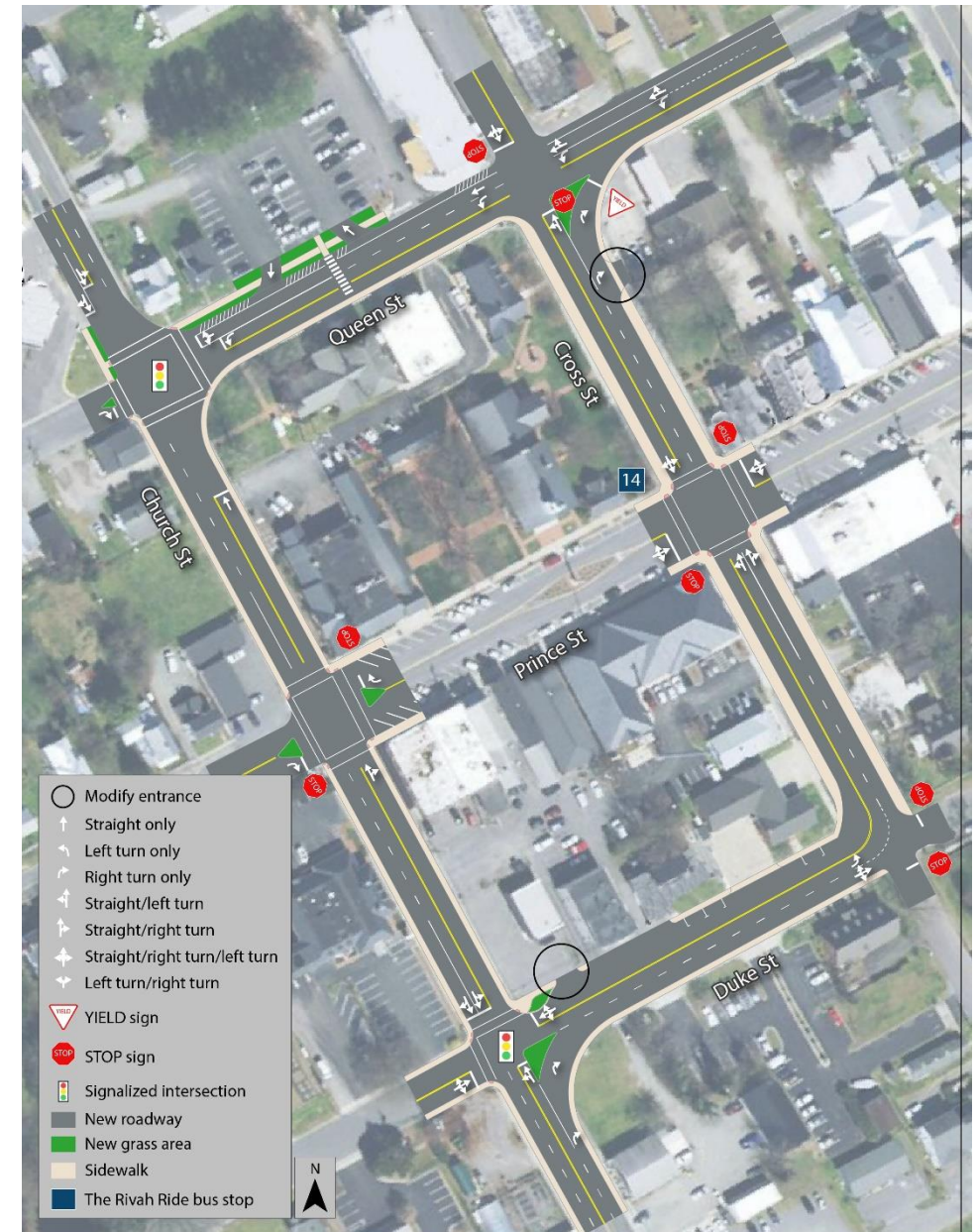
DOWNTOWN TAPPAHANNOCK ONE-WAY PAIRS

- **One-way streets in 2-block downtown core area**
 - Church Lane - southbound
 - Cross Street - northbound
 - Queen Street - westbound
 - Duke Street - eastbound
- **Moves traffic signal on Queen Street from Church Lane to Cross Street**
- **Removes traffic signal at Prince Street**
- **Wider sidewalks and wider travel lanes on Church Lane**
- **Removes most on-street parking on Cross Street**
- **Reduces travel times by 10-16 seconds, 9-14% reduction**
- **Reduces conflict points at:**
 - Church Lane & Queen Street
 - Church Lane & Duke Street
 - Queen Street & Cross Street



DOWNTOWN TAPPAHANNOCK PARTIAL QUADRANT

- **Church Lane becomes three lanes:**
 - 1 northbound lane
 - 2 southbound lanes
- **Vehicles from the south headed over the bridge turn right at Duke Street**
- **Wider sidewalks and wider travel lanes on Church Lane**
- **Reduces travel times by 15-20 seconds, 20% reduction**
- **Reduces conflict points at Church Lane/Queen Street intersection**



POSSIBLE SOLUTIONS: BRAYS FORK

US 17/360 AT BRAYS FORK ISSUES TO ADDRESS

- Access to the hospital
- Closely spaced intersections
- Unusual geometry



US 17/360 AT BRAYS FORK CONTINUOUS GREEN-T

- Improves access to the hospital
- Reduces travel times by 18-22 seconds, 70% reduction
- Reduces conflict points at Berry Hill Road/US 17 intersection



US 17/360 AT BRAYS FORK ROUNDAABOUT

- Improves access to the hospital
- Reduces travel times by 19-23 seconds, 76% reduction
- Reduces conflict points at Berry Hill Road/US 17 intersection
- Roundabouts generally reduce crashes by 50% compared to traffic signals



POSSIBLE SOLUTIONS: SOUTH OF HOSKINS CREEK

SOUTH OF HOSKINS CREEK – RICHMOND BEACH ROAD TO WHITE OAK DRIVE

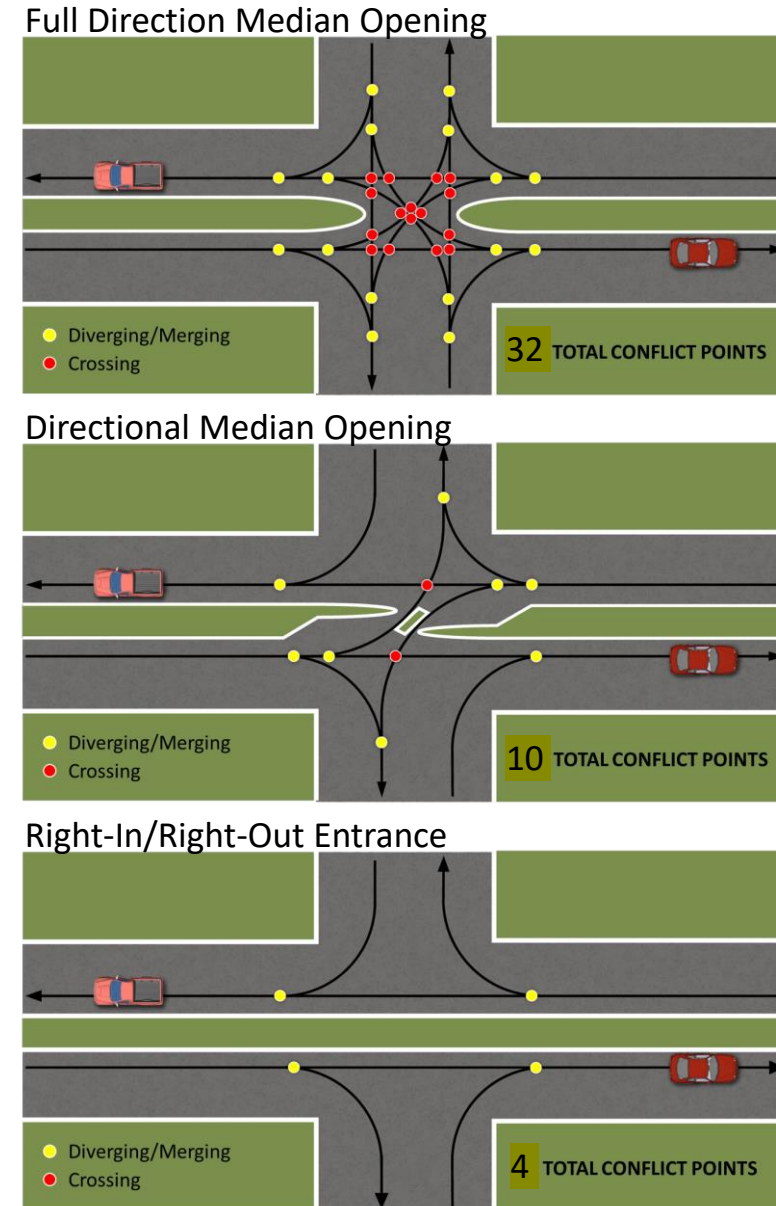
ISSUES TO ADDRESS

- **High crash frequency**
 - Ball Street & Tappahannock Boulevard
 - Winston Road & Tappahannock Boulevard
- **Closely spaced access points**
- **Lack of pedestrian facilities**



TYPES OF ACCESS POINTS

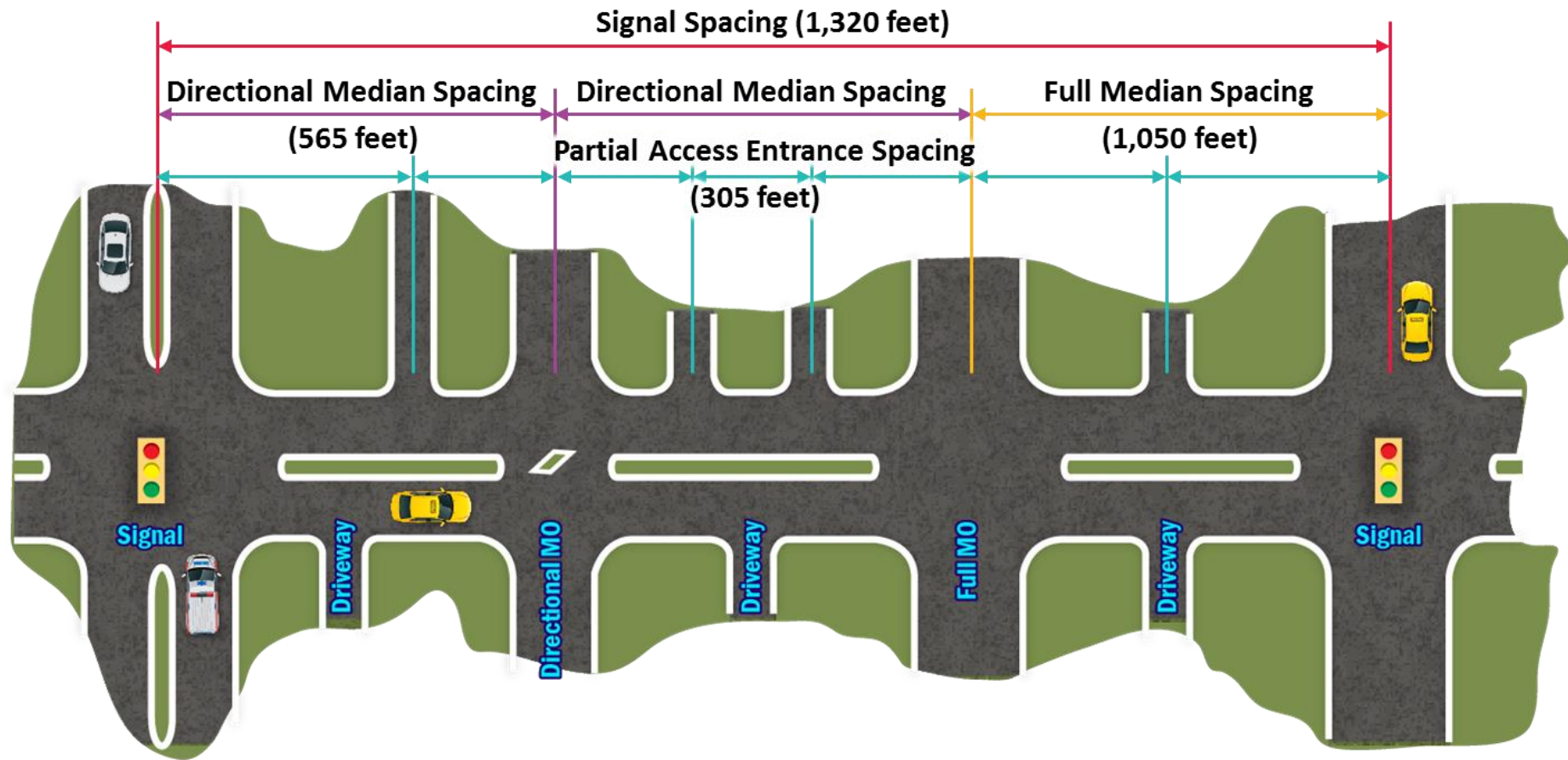
- The number of conflict points represents the different ways a crash could occur.
- Fewer conflict points mean there is less potential for crashes to occur.
- A typical four-leg intersection has 32 conflict points.
- Turn restrictions reduce the number of conflict points and crash potential.



MINIMUM ACCESS SPACING STANDARDS

for US 17/360 south of Hoskins Creek*

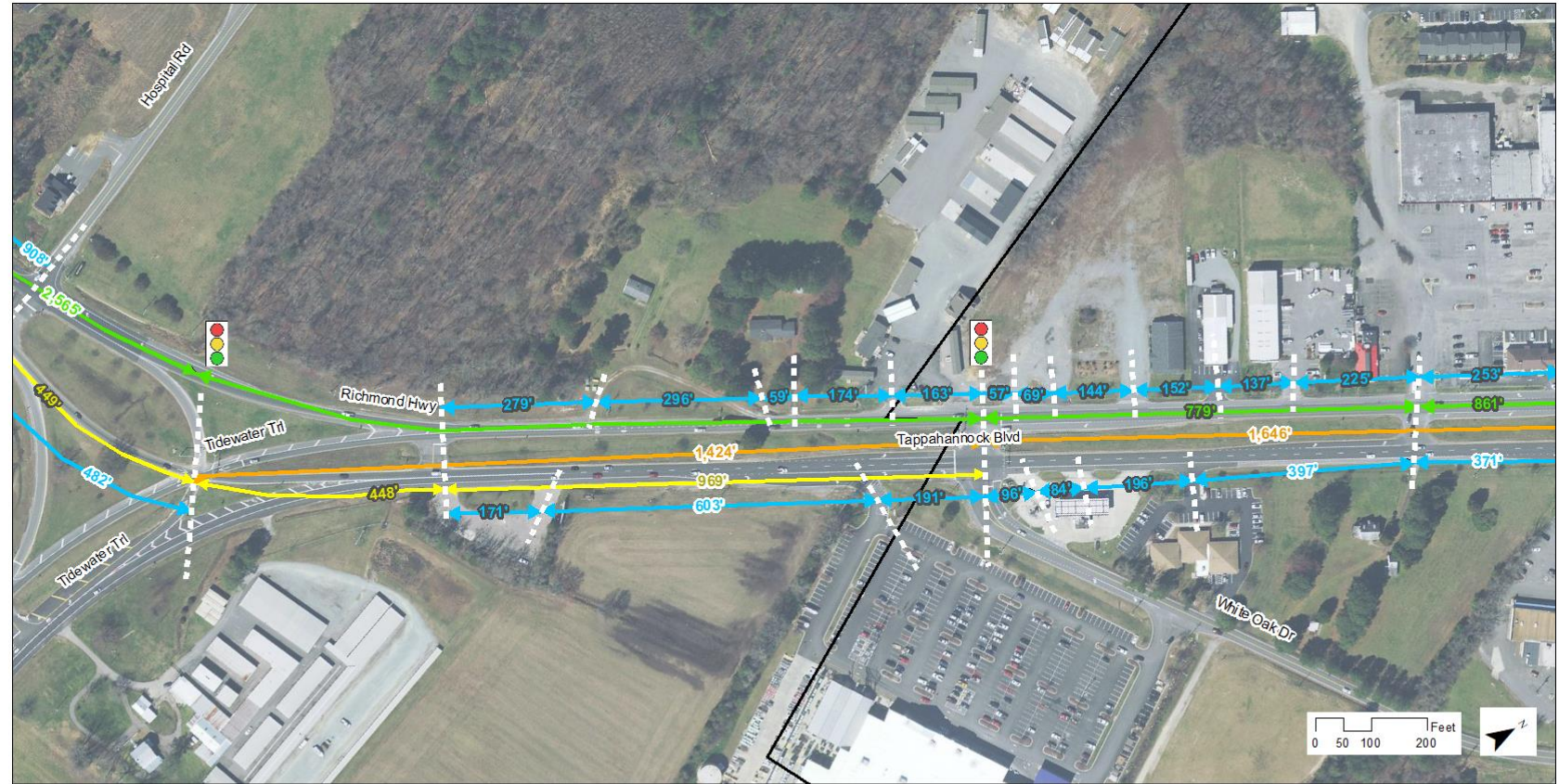
43



*Access spacing standards shown are for principal arterials with 35 to 45 mph posted speed limits. US 17/360 north of Hoskins Creek is 25 mph with different access spacing standards.

ACCESS SPACING DEFICIENCIES ON US 17/360

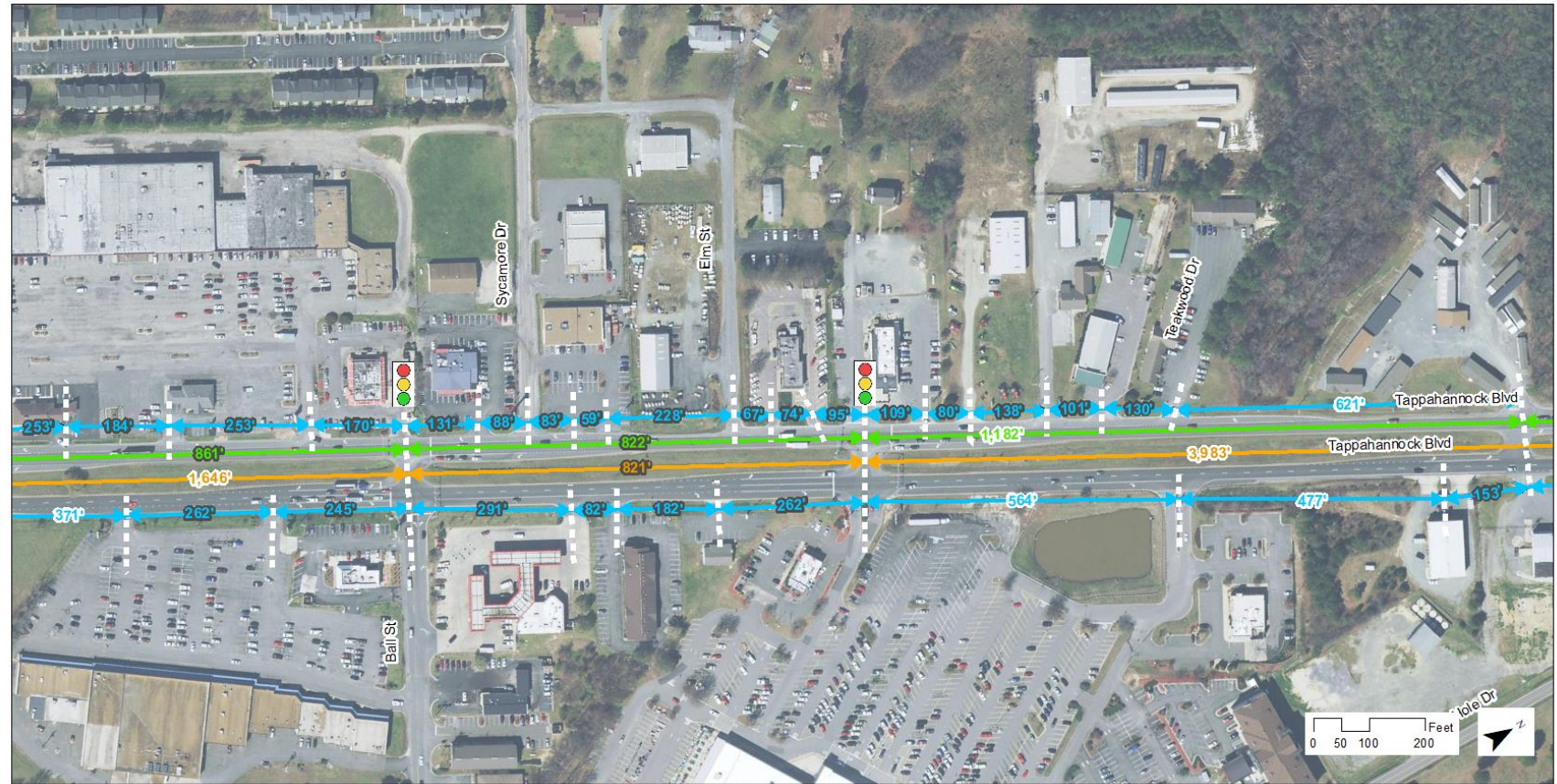
Median openings and entrances are spaced too closely together.



- Town Boundary
- Access Point Centerline
- Signalized Intersection
- Spacing between Signalized Intersection and Signalized Intersection (1,050' where 25mph, 1,320' where 35 or 45mph)
- Spacing between Unsignalized Intersection/Full Median Crossover and Signalized Intersection/Unsignalized Intersection/Full Median Crossover (880' where 25mph, 1,050' where 35 or 45mph)
- Spacing between Full Access Entrance or Directional Median and Any Intersection, Full Access Entrance or Median Crossover (440' where 25mph, 565' where 35 or 45mph)
- Deficient Length
- Spacing between Partial Access Entrance and Any Entrance, Intersection or Median Crossover (250' where 25mph, 305' where 35 or 45mph)

ACCESS SPACING DEFICIENCIES ON US 17/360

Median openings and entrances are spaced too closely together.



- Town Boundary
- Signalized Intersection
- Deficient Length
- Access Point Centerline
- Spacing between Signalized Intersection and Signalized Intersection (1,050' where 25mph, 1,320' where 35 or 45mph)
- Spacing between Unsignalized Intersection/Full Median Crossover and Signalized Intersection/Unsignalized Intersection/Full Median Crossover (880' where 25mph, 1,050' where 35 or 45mph)
- Spacing between Full Access Entrance or Directional Median and Any Intersection, Full Access Entrance or Median Crossover (440' where 25mph, 565' where 35 or 45mph)
- Spacing between Partial Access Entrance and Any Entrance, Intersection or Median Crossover (250' where 25mph, 305' where 35 or 45mph)

ACCESS SPACING DEFICIENCIES ON US 17/360

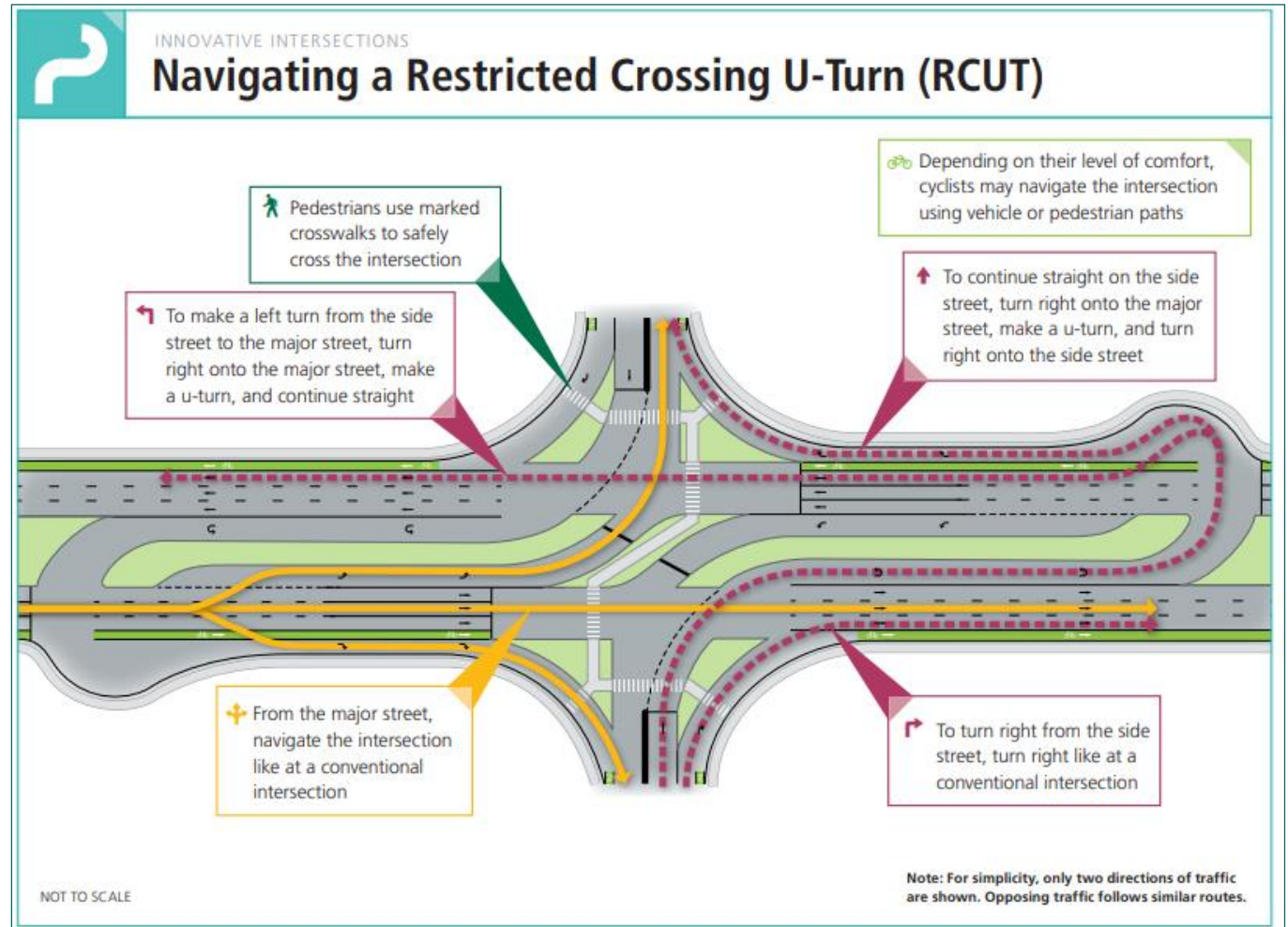
Median openings and entrances are spaced too closely together.



- Town Boundary
- Access Point Centerline
- Signalized Intersection
- Spacing between Signalized Intersection and Signalized Intersection (1,050' where 25mph, 1,320' where 35 or 45mph)
- Spacing between Unsignalized Intersection/Full Median Crossover and Signalized Intersection/Unsignalized Intersection/Full Median Crossover (880' where 25mph, 1,050' where 35 or 45mph)
- Spacing between Full Access Entrance or Directional Median and Any Intersection, Full Access Entrance or Median Crossover (440' where 25mph, 565' where 35 or 45mph)
- Deficient Length
- Spacing between Partial Access Entrance and Any Entrance, Intersection or Median Crossover (250' where 25mph, 305' where 35 or 45mph)

SOUTH OF HOSKINS CREEK: REDUCED CONFLICT INTERSECTION

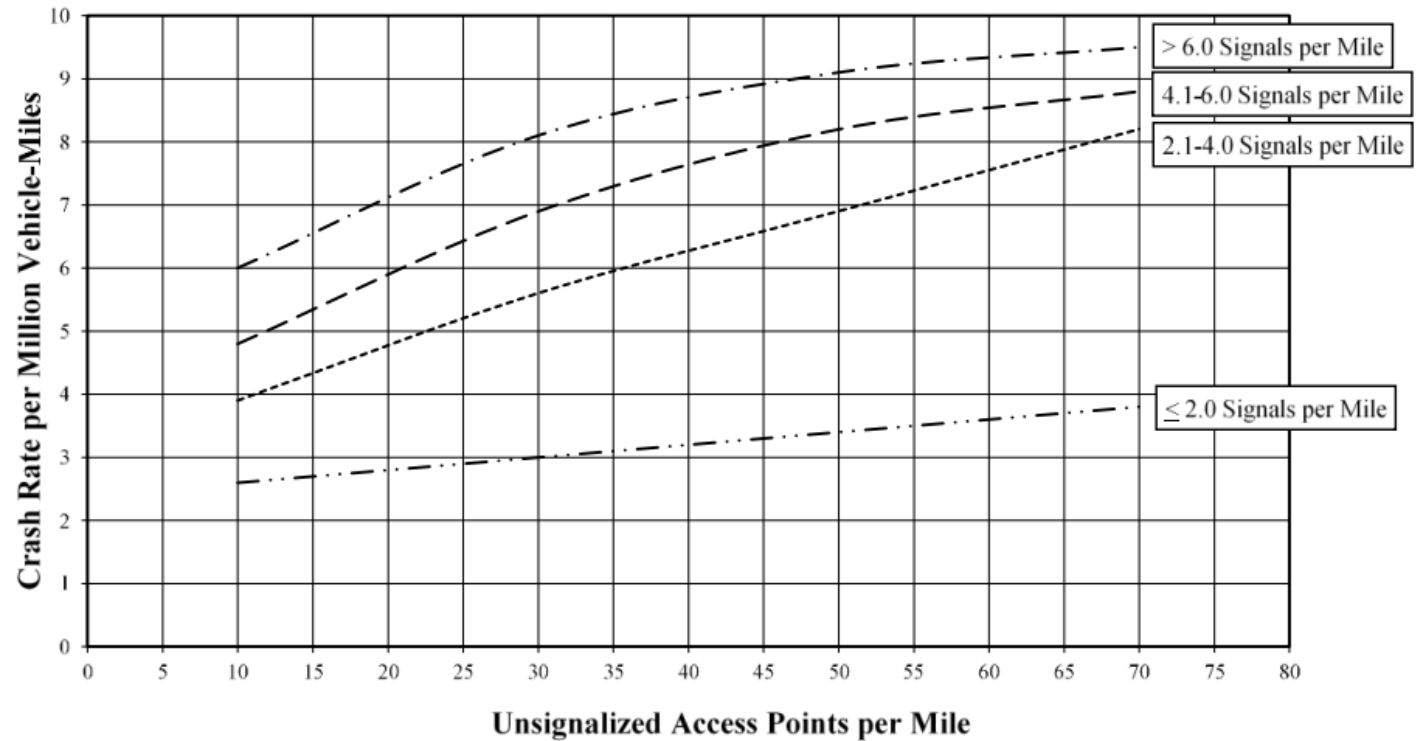
- Side street movements begin with right turn
- Improve safety by reducing conflict points
- Recently installed at Winston Road



RELATIONSHIP BETWEEN ACCESS AND SAFETY

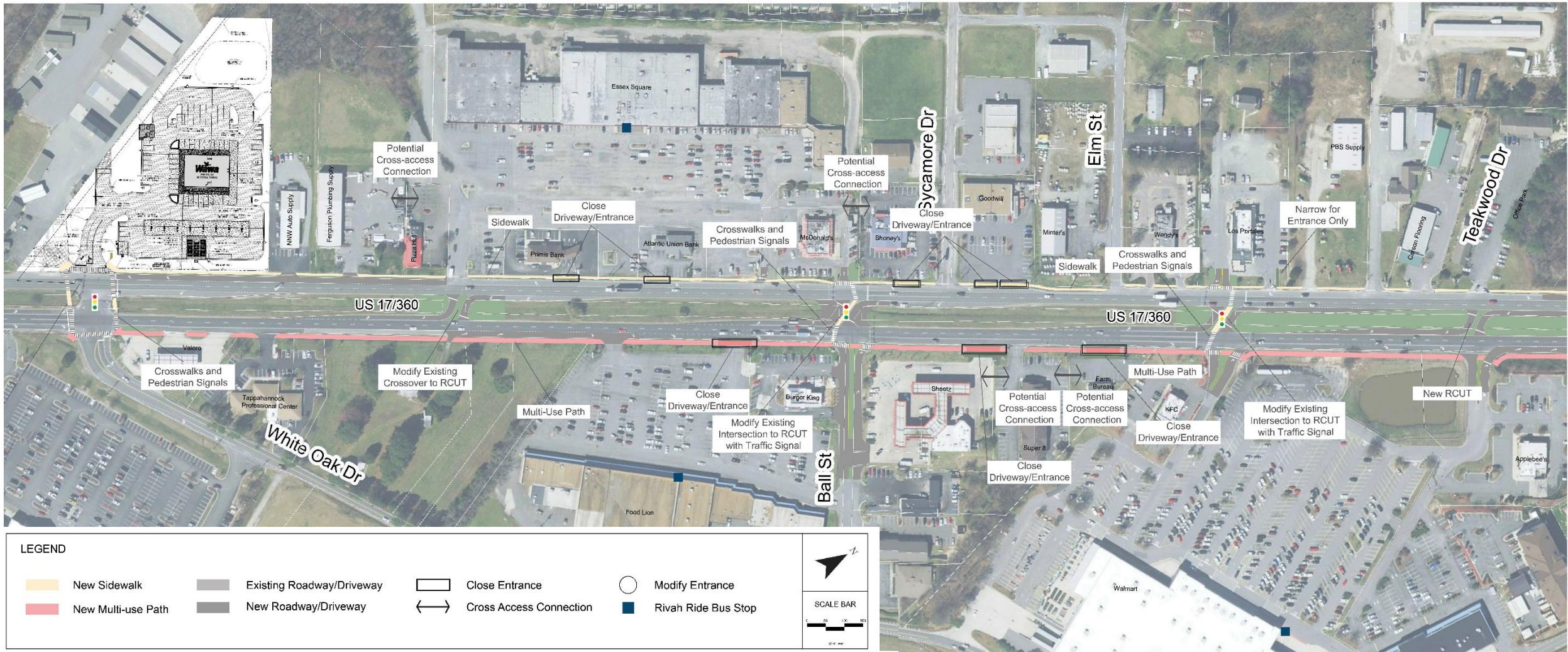
- **Crash rates increase as the number of access points increase**
- **Richmond Beach Road to White Oak Drive 3.25 signals per mile**

ESTIMATED CRASH RATES BY ACCESS DENSITY; URBAN AND SUBURBAN AREAS

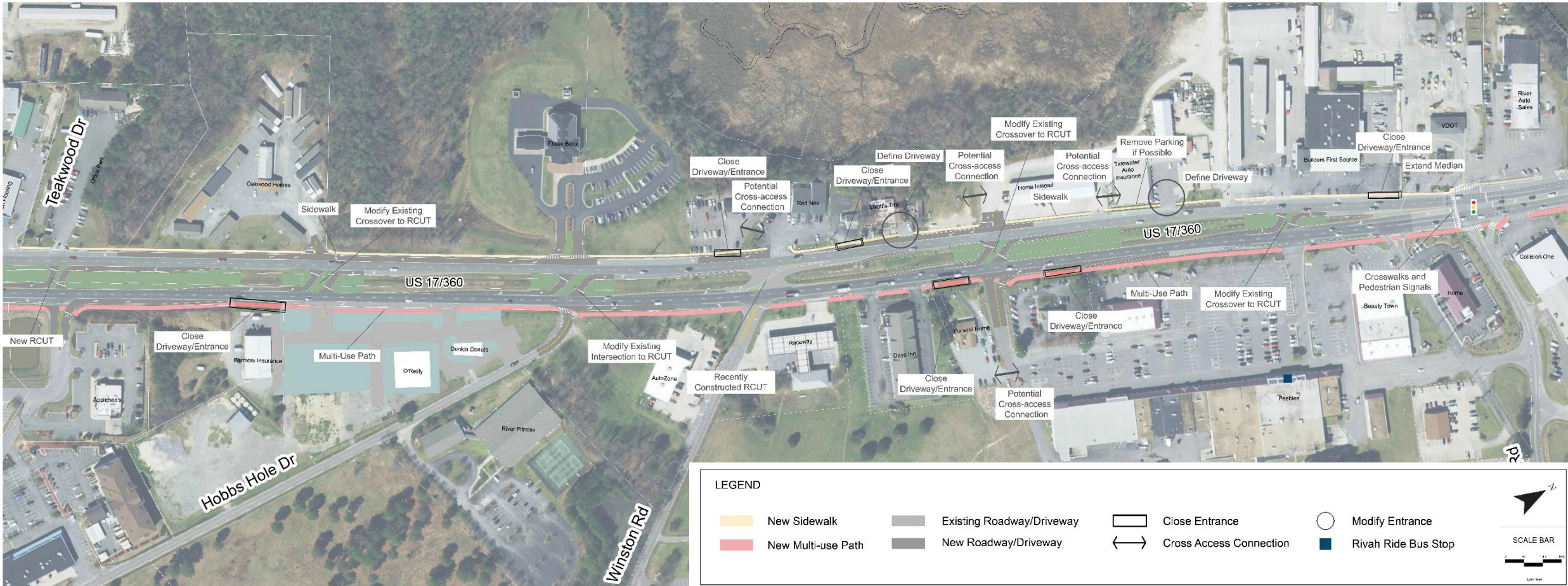


©Transportation Research Board.

SOUTH OF HOSKINS CREEK



SOUTH OF HOSKINS CREEK



HOW WOULD THE RECOMMENDED PROJECTS BE FUNDED?

FUNDING PROGRAMS

Highway Safety Programs



Transportation Alternatives



Revenue Sharing



SMART SCALE | *Funding the Right Transportation Projects in Virginia*



State of Good Repair

WHAT ARE THE NEXT STEPS?

NEXT STEPS

- Ask questions of the project team using the chat
- Tell us your thoughts at fred.comments@vdot.virginia.gov
- Take the MetroQuest survey at <http://metroquestsurvey.com/w4e0m>
- For more information contact:

Linda LaSut
VDOT Fredericksburg District
Assistant District Planner
linda.lasut@vdot.virginia.gov
540-899-4260

Michael Lombardo
Essex County
County Administrator
mlombardo@essex-virginia.org
804-443-4331

Roy M. Gladding
Town of Tappahannock
Mayor
rgladding@tappahannock-va.gov

Eric Pollitt
Town of Tappahannock
Town Manager
epollitt@tappahannock-va.gov
804-443-3336

STARS

STRATEGICALLY TARGETED AND
AFFORDABLE ROADWAY SOLUTIONS

US 17/360 (TAPPAHANNOCK BOULEVARD/CHURCH LANE) CORRIDOR STUDY

Thank you.

