

WELCOME

Purpose of the Route 460 (Orange/Challenger Avenue) Operational Improvements Study

- Evaluate operational and safety conditions along Route 460 (Orange/Challenger Avenue) between Williamson Road (Route 11) and Route 220 Alternate (Cloverdale Road)
- Consider and assess potential safety and operational improvements in the study area
- Develop cost estimates for the potential improvements

Objectives of the Public Information Meeting

- Inform the public about the study
- Present preliminary information on safety and traffic conditions within the study area
- Provide the public an opportunity to give comments and suggestions on existing safety and traffic operations and gather ideas to enhance safety and reduce congestion in the corridor

Study Area



VDOT STARS PROGRAM

Background on VDOT's STARS Program

- The Route 460 Operational Improvements Study has been identified as part of the Strategically Targeted and Affordable Roadways Solutions (STARS) program
- Program to develop solutions to reduce crashes and congestion bottlenecks using a data-driven approach

Crash hotspots
Speed data
Traffic count data

Use this information together to identify corridors with safety and congestion challenges

Overall goal of STARS is to develop solutions that can be funded and implemented

STARS Program Goals

- Develop comprehensive, innovative transportation alternatives to relieve congestion bottlenecks and solve critical safety challenges
- Involve planners, traffic engineers, safety engineers, roadway designers and local stakeholders

STARS Project Stakeholders



Visit virginiadot.org/projects/stars.asp for more information

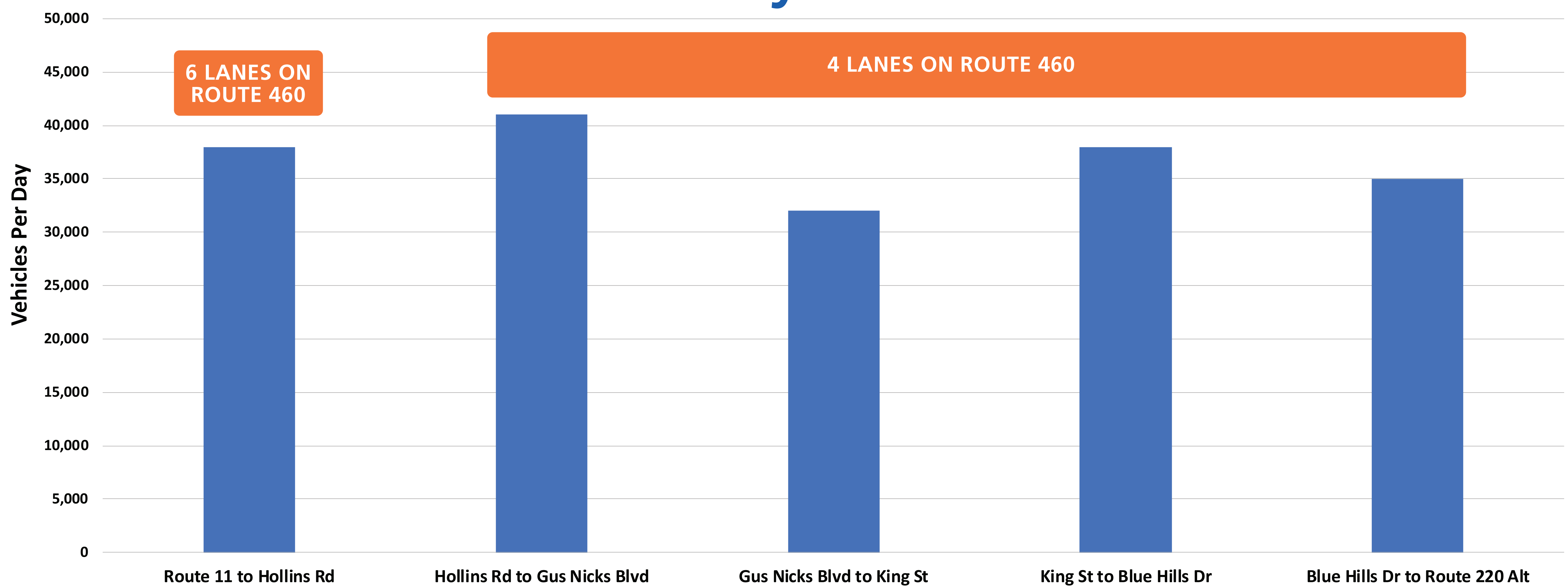
STUDY AREA FEATURES

- 4.8-mile corridor
- Six lanes west of Hollins Rd
- Four lanes east of Hollins Rd
- 35-mph to 45-mph speed limit
- 36 Intersections
 - 12 signalized intersections
 - 1 emergency flashing intersection
 - 16 unsignalized intersections
 - 7 unsignalized crossovers

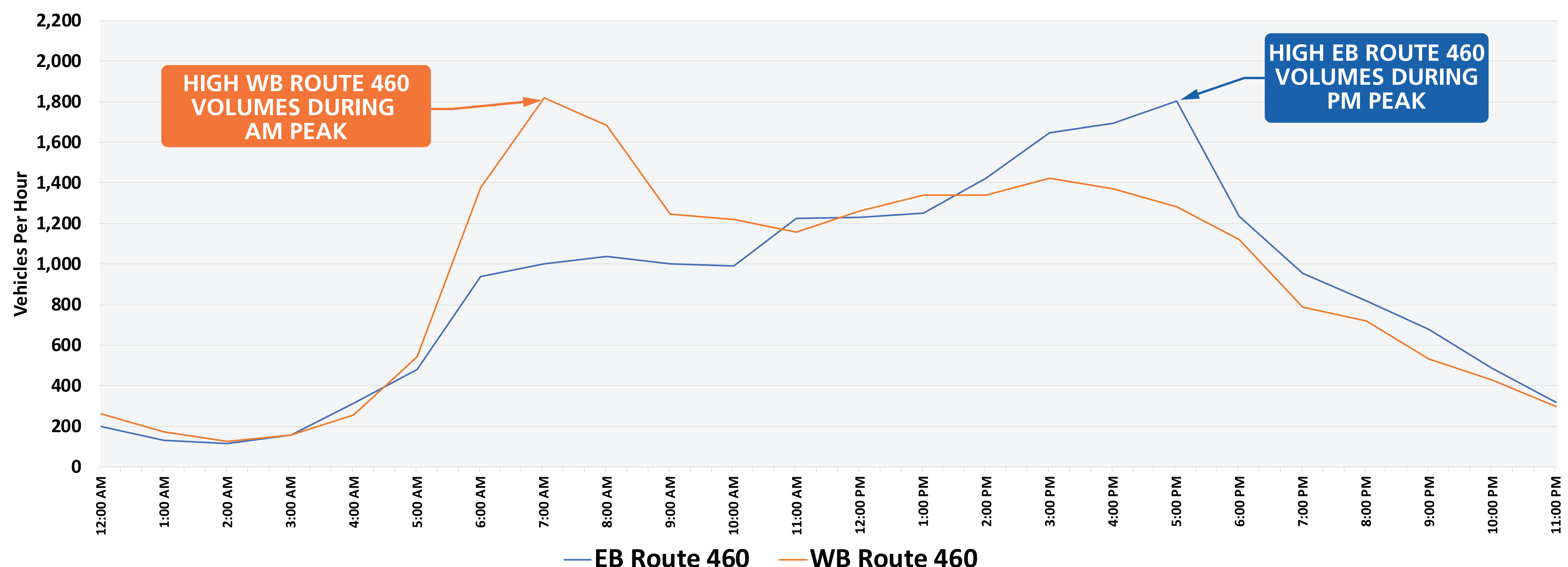


TRAVEL PATTERNS

Route 460 Daily Traffic Volumes



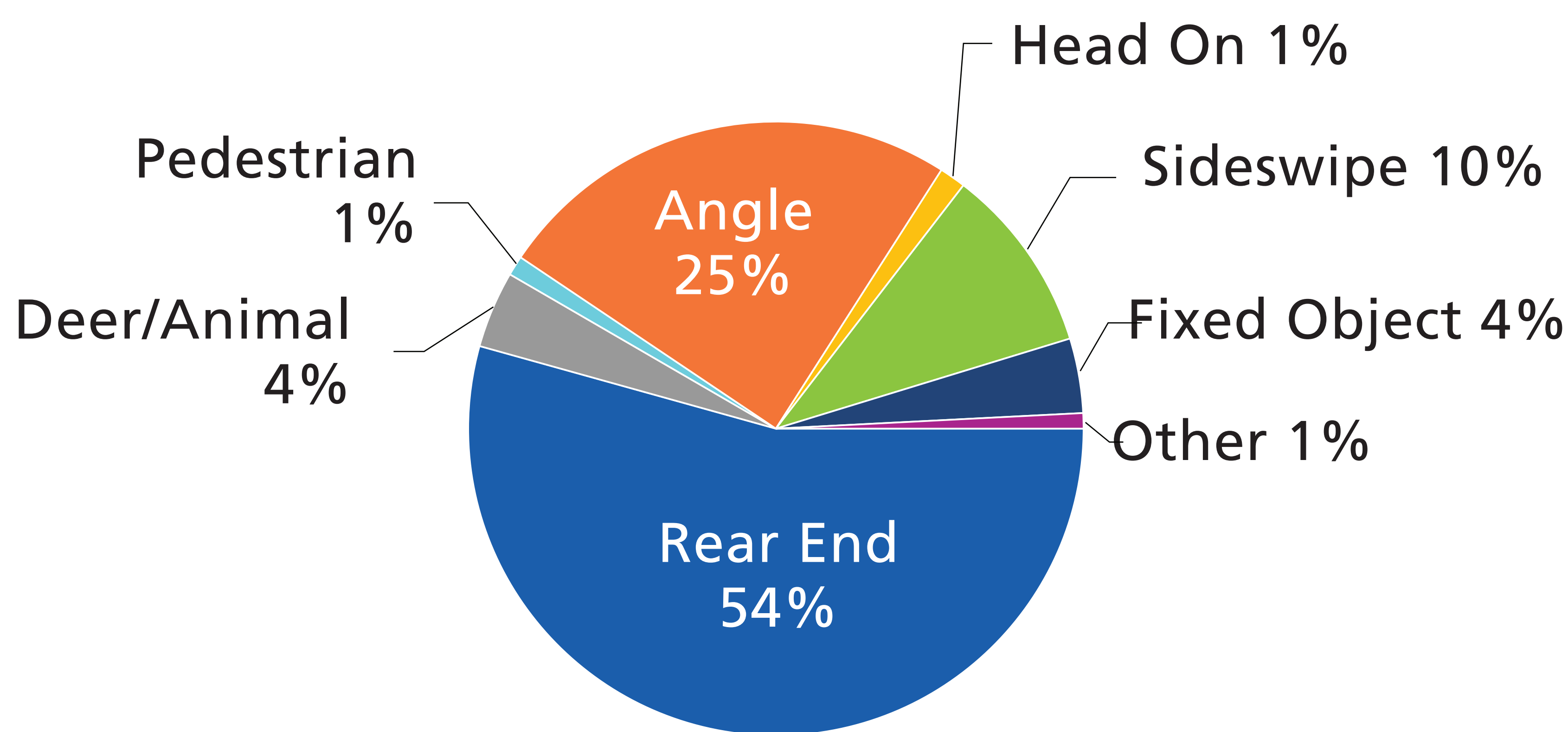
Route 460 Hourly Traffic Volumes - Hollins Rd to Gus Nicks Blvd



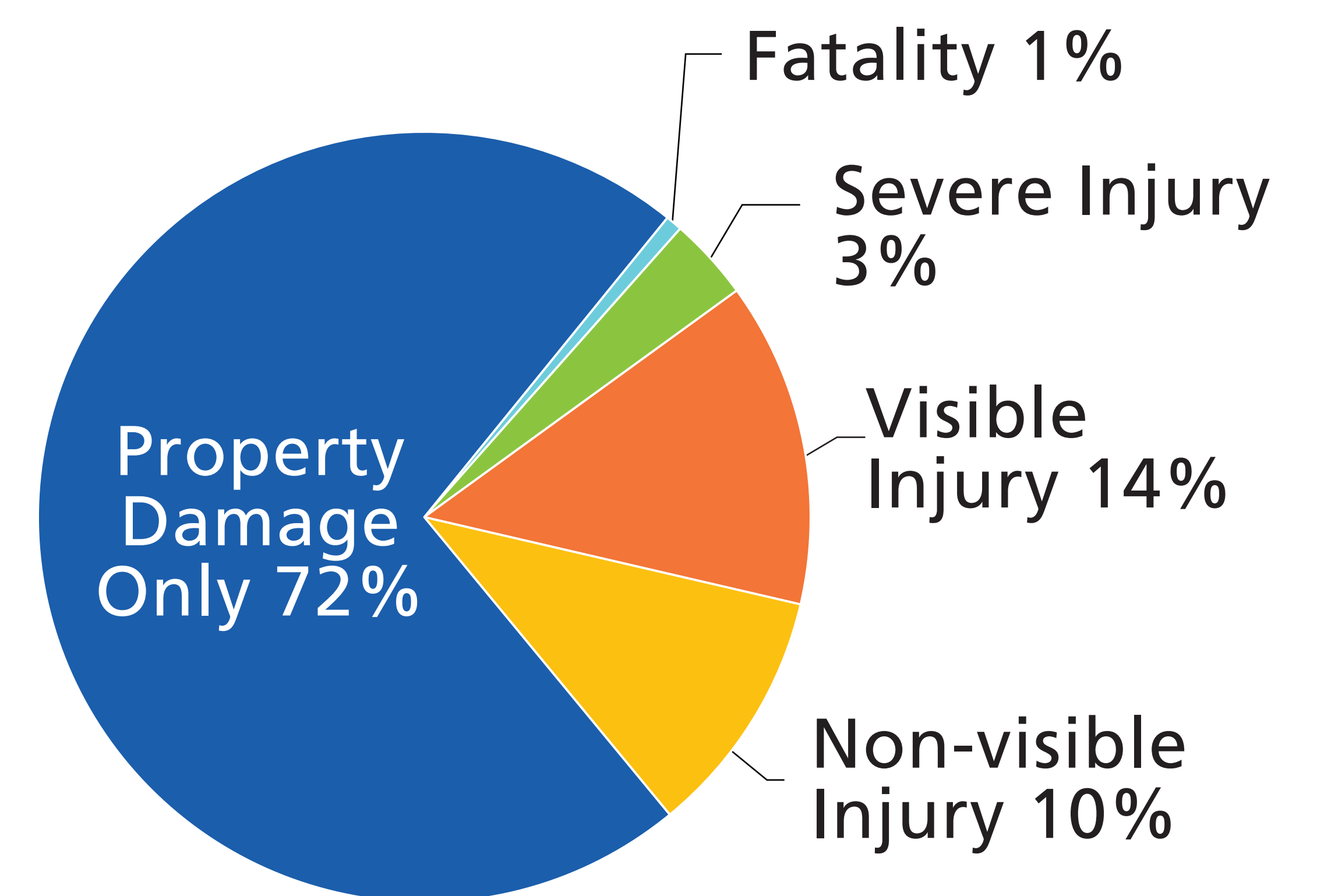
SAFETY CONDITIONS

- Five-year crash data study period (2014-2018)
- 865 total crashes within study area
 - 6 fatal crashes
 - 238 injury crashes
 - 12 pedestrian/bicycle crashes (including 2 fatalities)

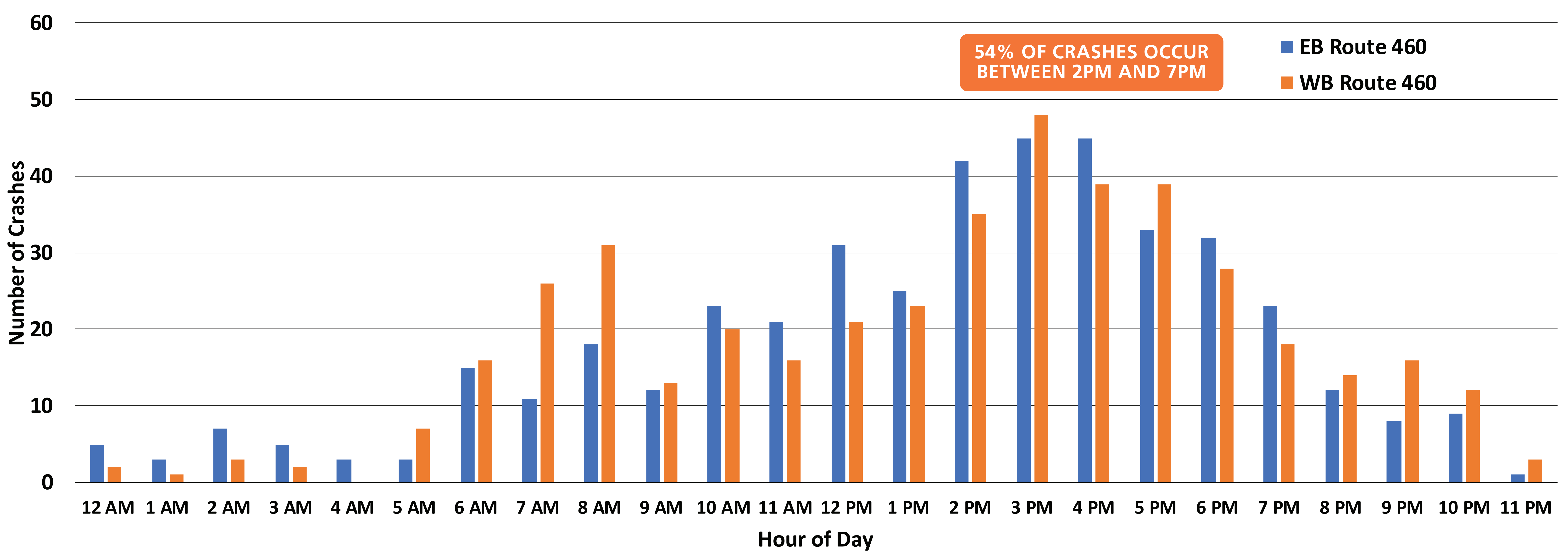
CRASH TYPES



CRASH SEVERITY



Crashes by Time of Day



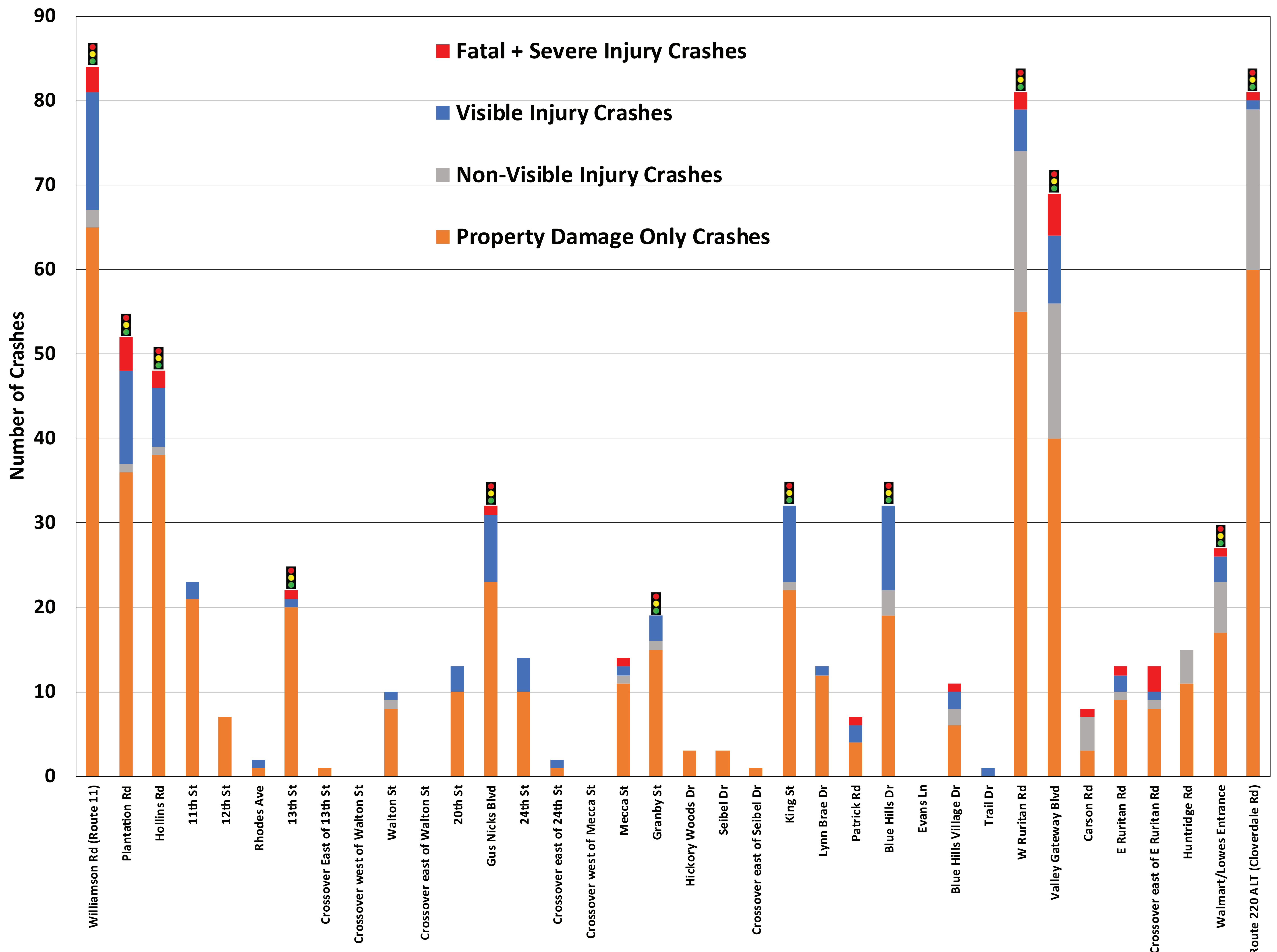
Crashes will be evaluated by location, severity, type, time of day, and circumstances to examine contributing factors and develop potential improvements

SAFETY CONDITIONS AT INTERSECTIONS

- 67% of crashes along Route 460 occur in the vicinity of signalized intersections
- Crash hot-spot intersections along Route 460:
 - Williamson Road (Route 11) - 84 crashes
 - West Ruritan Road - 81 crashes
 - Route 220 Alternate (Cloverdale Road) - 81 crashes
 - Valley Gateway Boulevard - 69 crashes
 - Plantation Road - 52 crashes
 - Hollins Road - 48 crashes



Intersection Crashes



Intersection crashes will be evaluated by crash type, direction of travel, severity, time of day and other circumstances to develop potential intersection improvements

CRASH DENSITY (2014 - 2018)

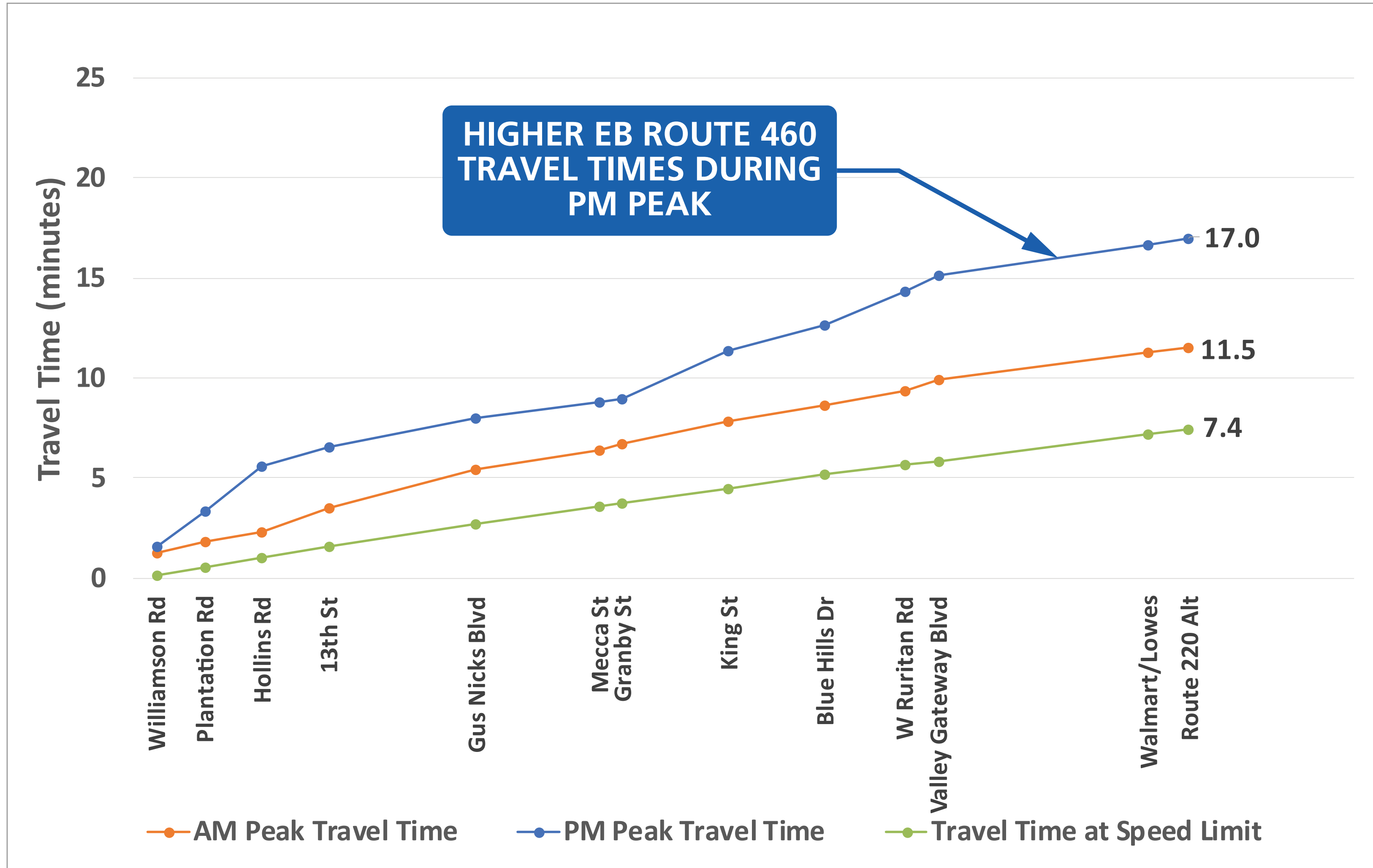


TRAFFIC CONDITIONS

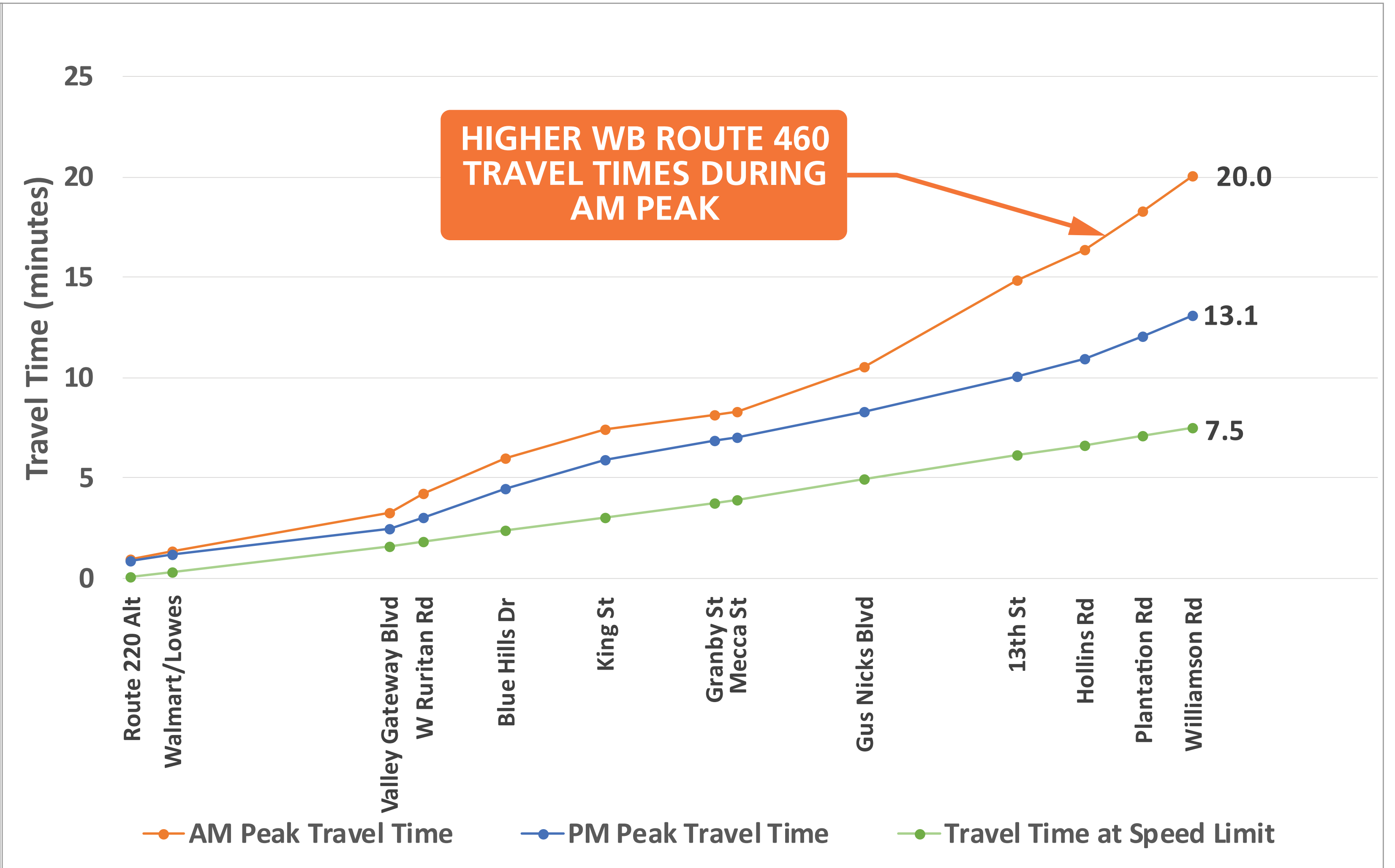
Route 460 Peak Hour Travel Times

Williamson Road (Route 11) to Route 220 Alternate (Cloverdale Road)

Eastbound Route 460



Westbound Route 460



Lane Drop east of Hollins Rd



West of Blue Hills Dr Intersection



West Ruritan Rd and Valley Gateway Blvd Intersections



Gus Nicks Blvd Intersection



Lynn Brae Dr and King St Intersections



Median Crossover east of 24th St

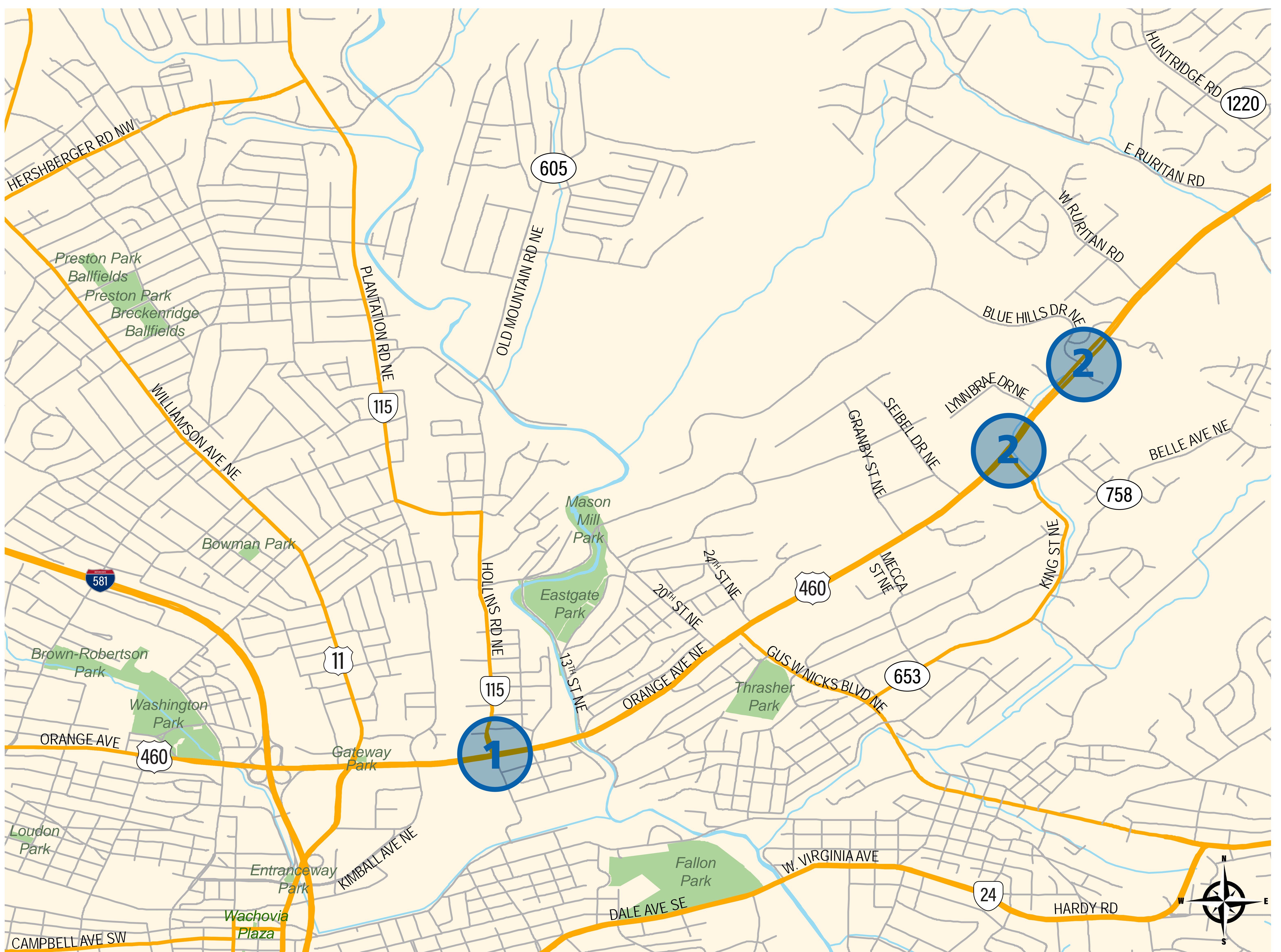
FUNDED PROJECTS

1 Route 460 and Hollins Road Intersection Improvements

- Offset left-turn lanes on Route 460 to increase sight distance and improve safety
- Install eastbound Route 460 right-turn lane
- \$4.2M Funded - FY 2018 SMART SCALE

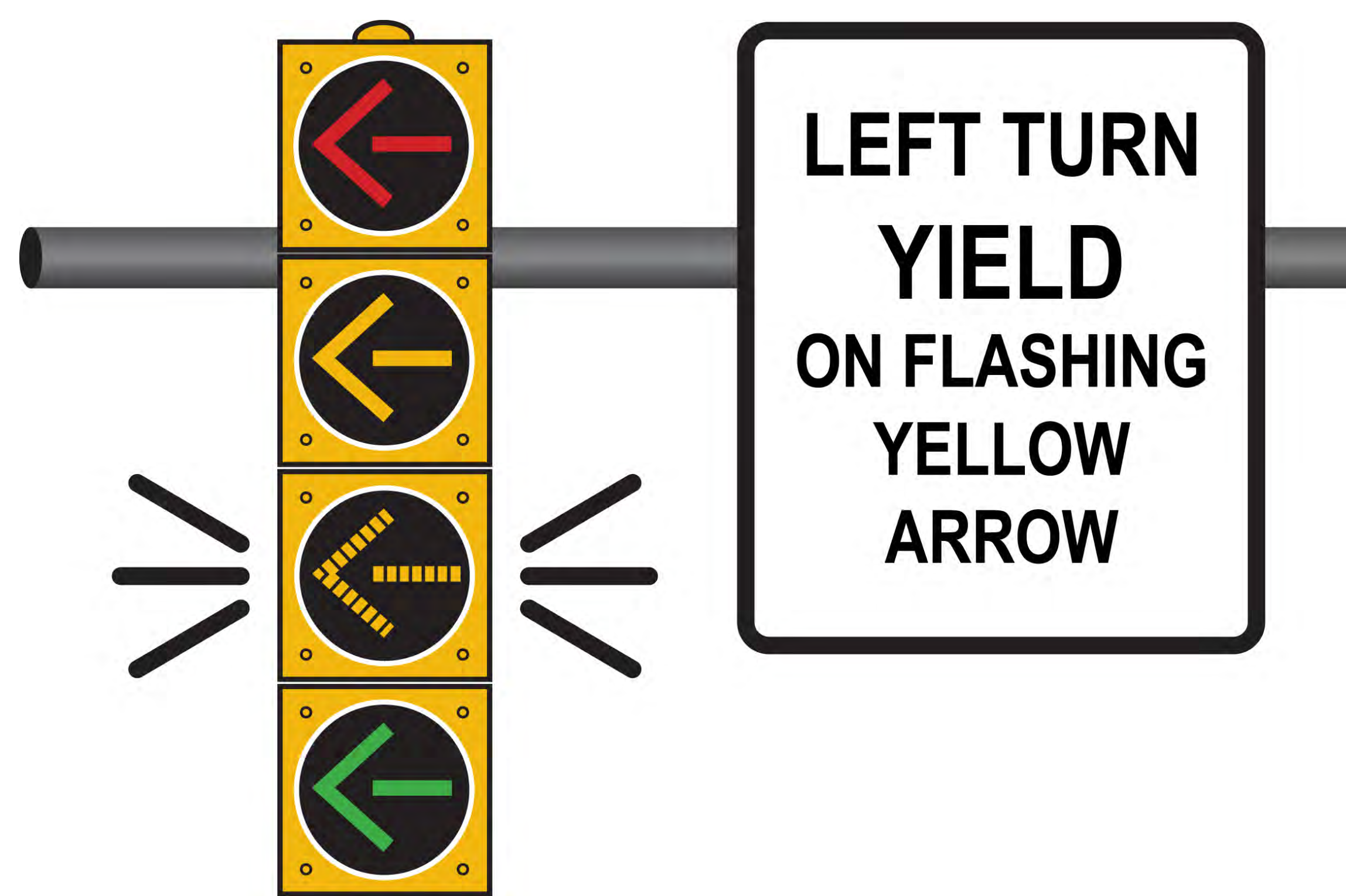
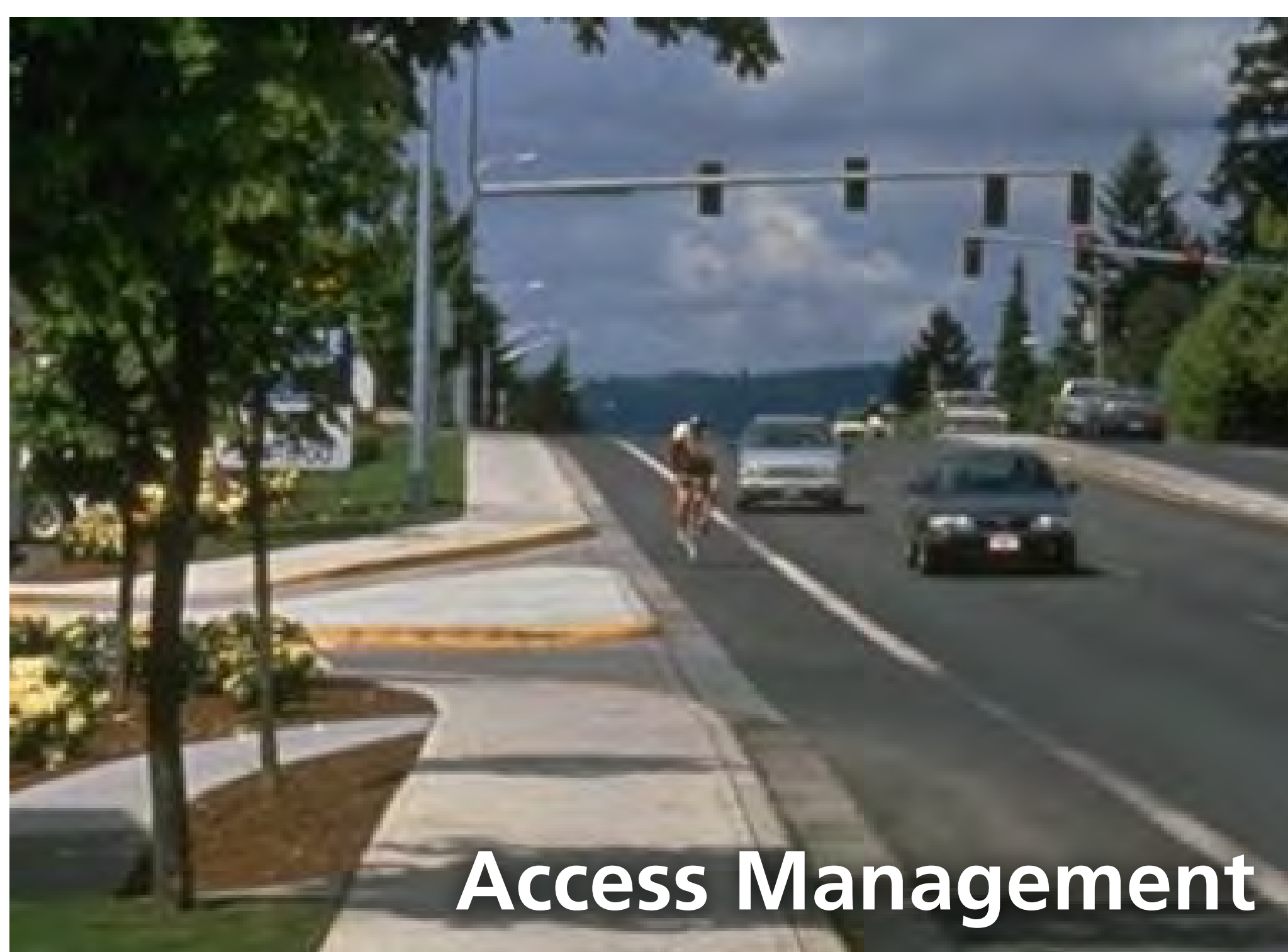
2 Route 460 at King Street and Blue Hills Drive/Mexico Way Intersection Improvements

- Extend the westbound left-turn lane at King Street to increase storage
- Offset left-turn lanes on Route 460 at both King Street and Blue Hills Drive/Mexico Way to increase sight distance and improve safety
- Pedestrian upgrades including sidewalk and pedestrian signals at King Street
- \$2.8M Funded - FY 2020 SMART SCALE



POTENTIAL IMPROVEMENT

- Constructing innovative intersections
- Optimizing signal operations
- Implementing access management strategies
- Installing pedestrian and bicyclist safety measures
- Widening the roadway
- Improving transit operations



INNOVATIVE INTERSECTIONS

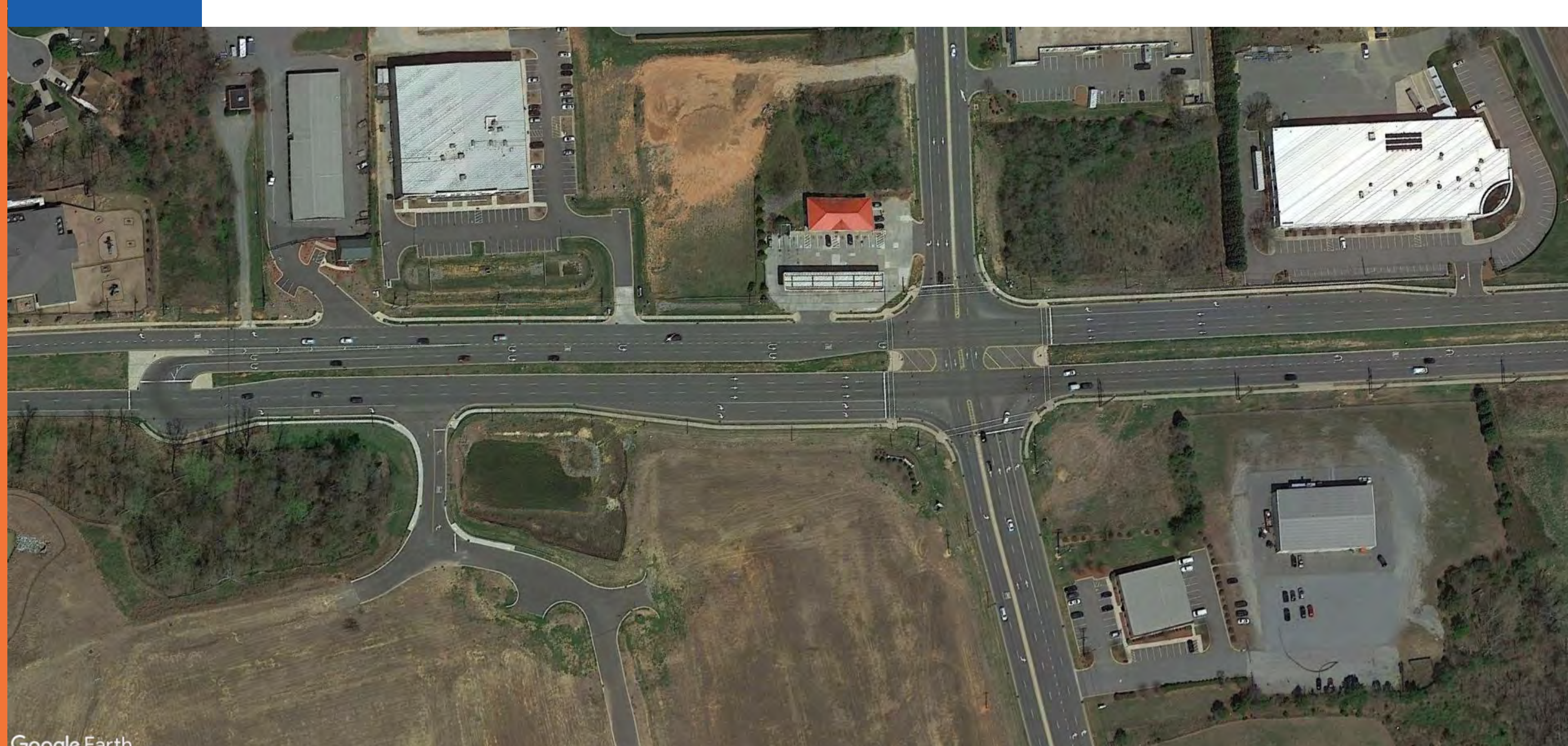
T Continuous Green-T (CGT)



Y Displaced Left Turn (DLT)



S Median U-Turn (MUT)

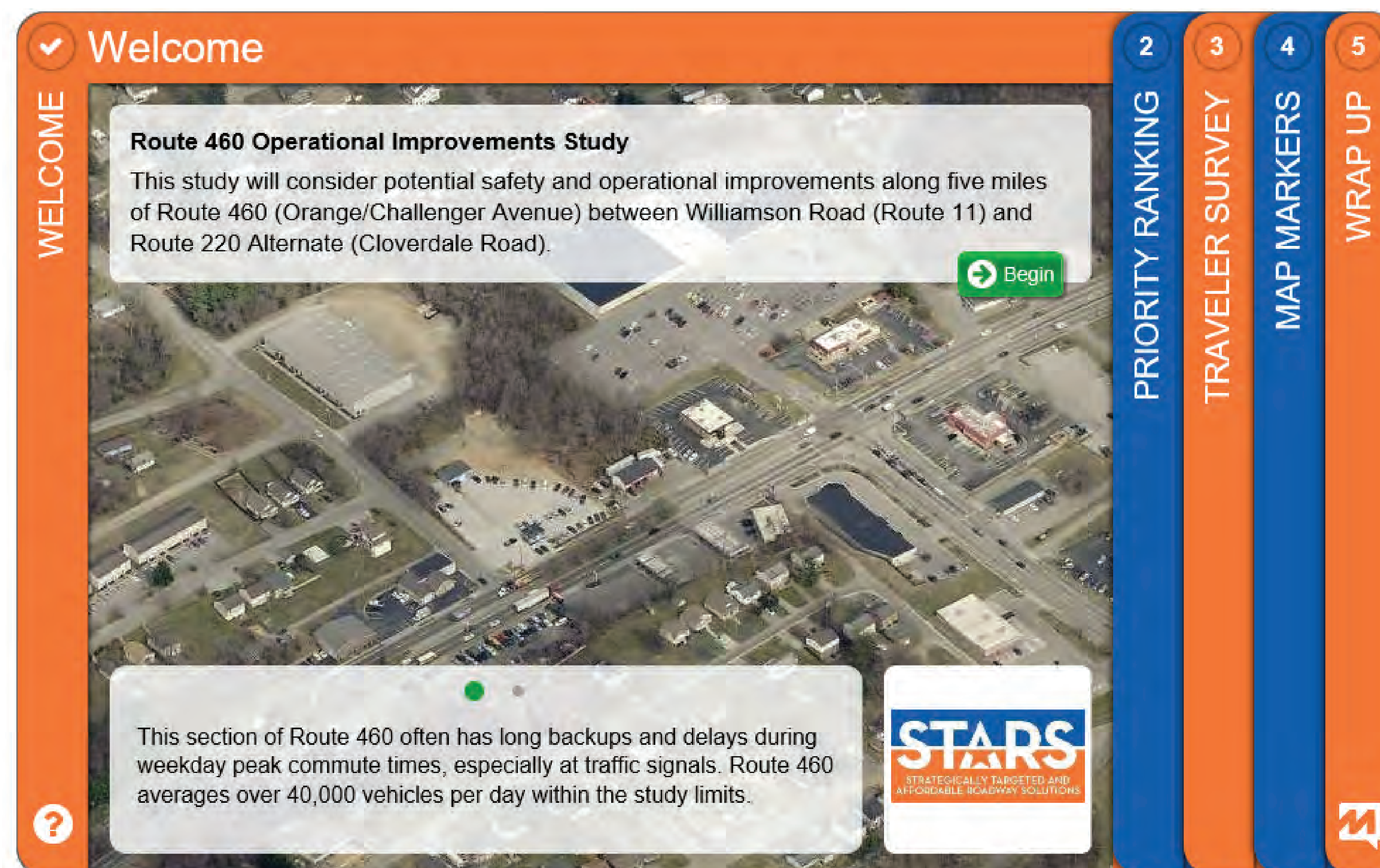


R Restricted Crossing U-Turn (RCUT)



NEXT STEPS

- Provide comments using the following link:
www.virginiadot.org/Route460OperationalStudy
- Comment period closes December 1, 2019



- Second Public Information Meeting - Early 2020
- Study Completion - Spring 2020

THANK YOU FOR YOUR INTEREST AND PARTICIPATION!
Your input is essential as we evaluate potential improvement options.

For more information regarding the study and future updates, please visit our website at:
www.virginiadot.org/Route460OperationalStudy