HAVERFORD ROAD CORRIDOR SAFETY IMPROVEMENT PROJECT

PUBLIC MEETING

PENNONI ASSOCIATES INC – JANUARY 19, 2023

pennsylvania
DEPARTMENT OF TRANSPORTATION

MEETING AGENDA

- Project Description & Location
- Project Purpose & Need Statement
- PennDOT's HSIP Program
- Benefits of Road Diet Configurations
- Existing Conditions
- Proposed Conditions & Project Schedule
- Questions/Comments

PROJECT DESCRIPTION

- Perform “Road Diet” along Haverford Road between Landover Road/County Line Road and Karakung Road/Winchester Road.
- Mill / overlay of existing pavement.
- Restripe new lane configurations along approximately 2.1 miles of roadway.
- All work is anticipated to be confined to the area between the existing curb lines.
- There are no anticipated permanent right-of-way acquisitions for the project.

PROJECT LOCATION

PURPOSE & NEED

Purpose:

- The purpose of the project is to increase safety and mobility throughout the corridor for both motorists and pedestrians.

Need:

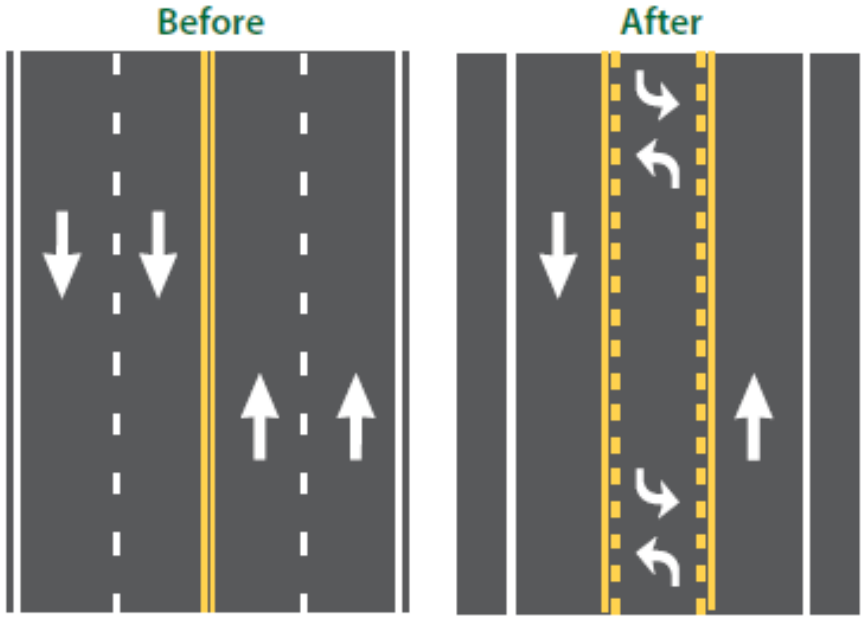
- The project is needed to improve safety along the project corridor. The project corridor was identified by PennDOT as a corridor with a high percentage of angle and rear-end crashes and a high percentage of fatal and injury crashes, based on 2016-2020 crash data.

PENNDOT HSIP PROGRAM

- Every year PennDOT receives federal funding from Federal Highway Administration (FHWA) for its Highway Safety Improvement Program (HSIP).
- PennDOT identifies HSIP projects based on reportable crashes and the number of fatalities and major injuries.
- Data driven safety analysis and cost benefit analysis using the federal Highway Safety Manual (HSM) is used for the identification of HSIP projects.

*The overall purpose is to **achieve a significant reduction in traffic fatalities and serious injuries on state roads** through the implementation of infrastructure-related highway safety improvements and countermeasures.*

WHAT IS A ROAD DIET?



Source: FHWA

- Reduction of travel lanes for through traffic.
- Center two-way left-turn lane
- Additional shoulder area
- Implemented in the US for over 20 years.
- Improves safety and mobility for all users.

The FHWA recognizes Road Diets as one of over 20 "Proven Safety Countermeasures" shown to reduce serious injuries and fatalities on America's roads.

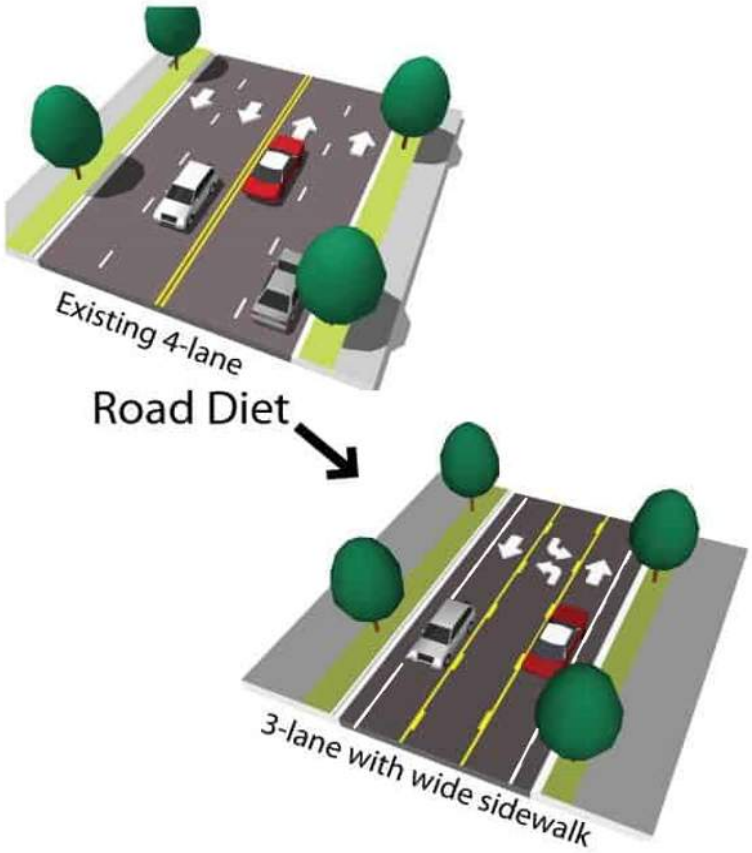
ROAD DIET SAFETY BENEFITS

- Reduce Speeds – Traffic Calming
- Reduce crossing distance and improve sight distance for left turn vehicles.
- Reduce conflict points.
- Reduce number of lanes for pedestrians to cross.
- Provide shoulder areas increase distance between traffic and fixed objects.
- Creates space to add pedestrian refuge islands, bike lanes, parking, or transit stops.

❖ ***Shown to reduce overall crashes 19 to 47 percent.***

Source: FHWA

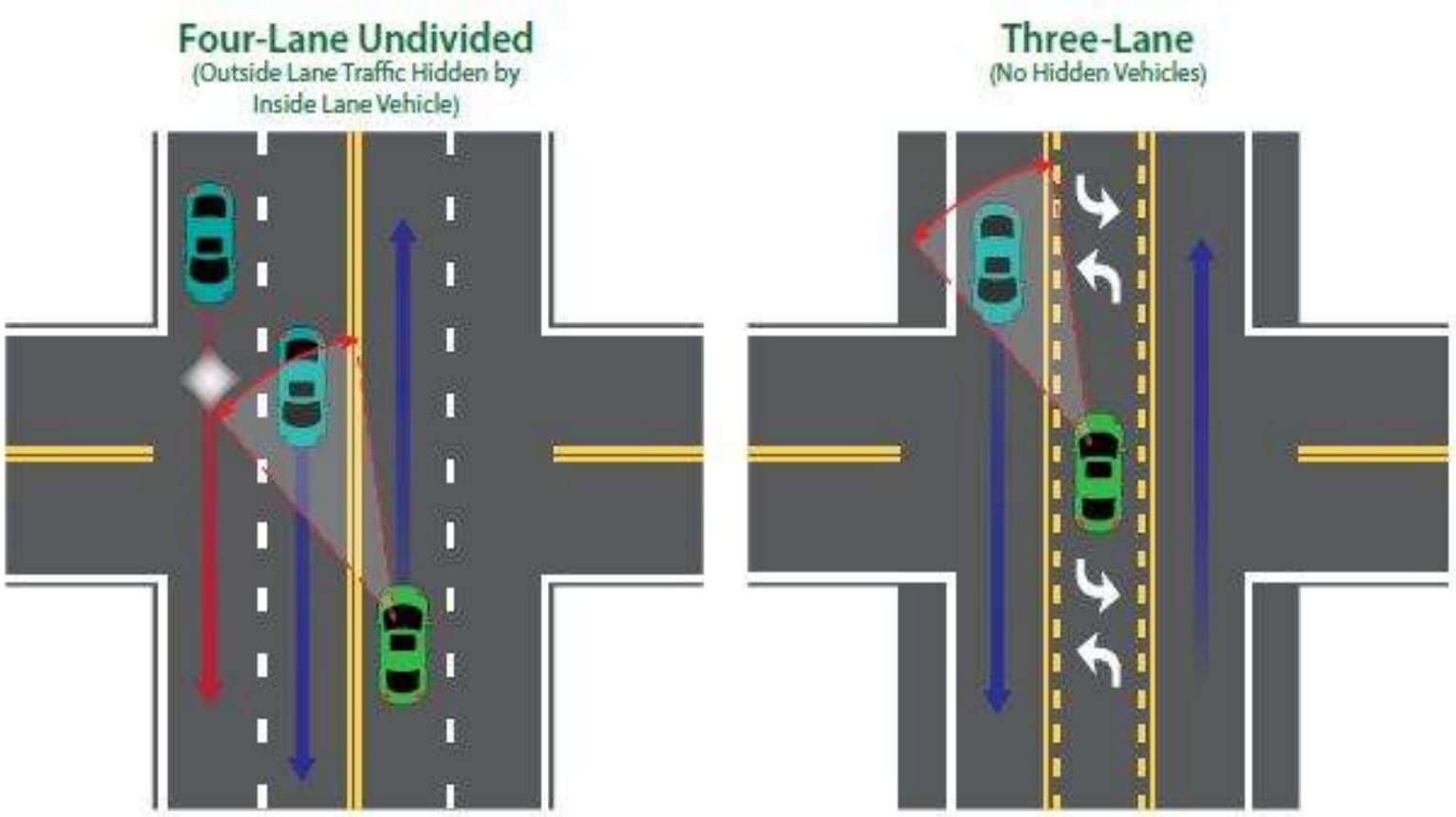
SAFETY BENEFITS – REDUCED SPEEDS



- On a four-lane road, vehicle speeds can vary between the travel lanes.
- Drivers frequently slow or change lanes due to slower or stopped vehicles trying to make turns.
- Drivers may also weave in and out of the travel lanes at high speeds.
- Reducing to one travel lane forces vehicles to travel at the lead vehicle's speed in that single lane.

Reducing operating speed decreases crash severity when crashes do occur

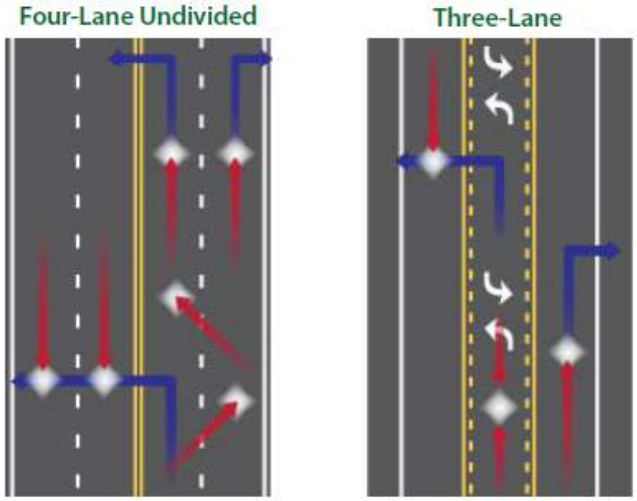
SAFETY BENEFITS – SIGHT DISTANCE



Source: FHWA

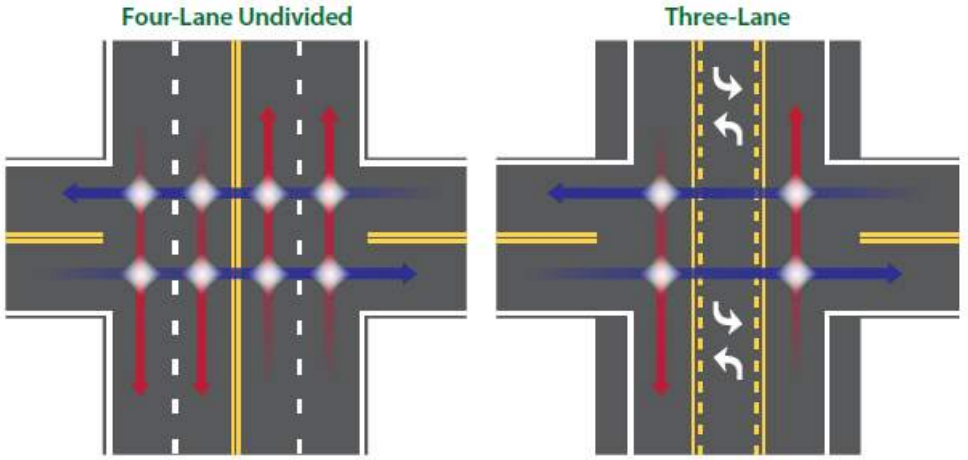
SAFETY BENEFITS – CONFLICT POINTS

Conflict Points along Corridor



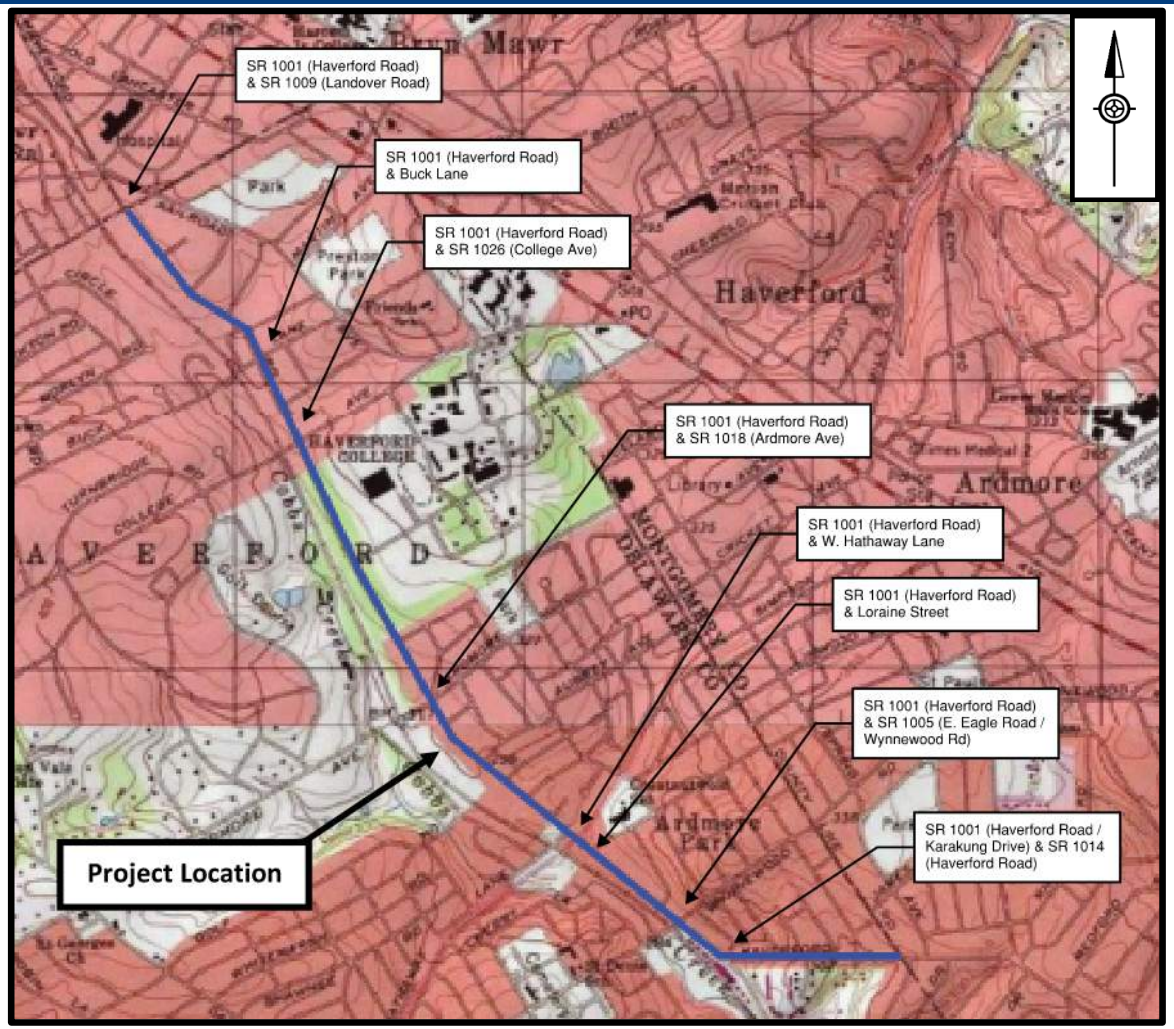
Source: FHWA

Conflict Points at Intersections



Source: FHWA

STUDY AREA INTERSECTIONS



EXISTING CONDITIONS

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EXISTING CONDITIONS - SUMMARY

- Four-lane undivided highway with two lanes in each direction and no shoulders
- Approximate ¾-mile section with one lane northbound, two lanes southbound and a center two-way left turn lane
- Large number of left turns at signalized intersections and numerous side streets and driveways along the corridor
- The corridor has experienced a high percentage of angle and rear-end crashes as well as a high percentage of fatal and injury crashes.

PROPOSED CONDITIONS

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PROPOSED SAFETY AND OPERATIONS

Proposed Design:

- Partial Road Diet with single travel lane Northbound, center two-way left turn lane with exclusive left turn lanes at signalized intersections, and one or two travel lanes southbound
- Signal Equipment, Timing, and Phasing improvements

Evaluated:

- Expected Safety Performance – reduction in crashes
- Expected Traffic Operations – delays and queues at signalized and unsignalized intersections, corridor travel time

Project Improvements expected to result in:

- Expected safety improvement of 21% reduction in total crashes and 25% reduction in fatal and injury crashes
- Expected to operate with acceptable delays at intersections and expected to improve or only slightly reduce travel time along the corridor

PROPOSED CONDITIONS - QUEUES

Existing Queue Proposed Queue

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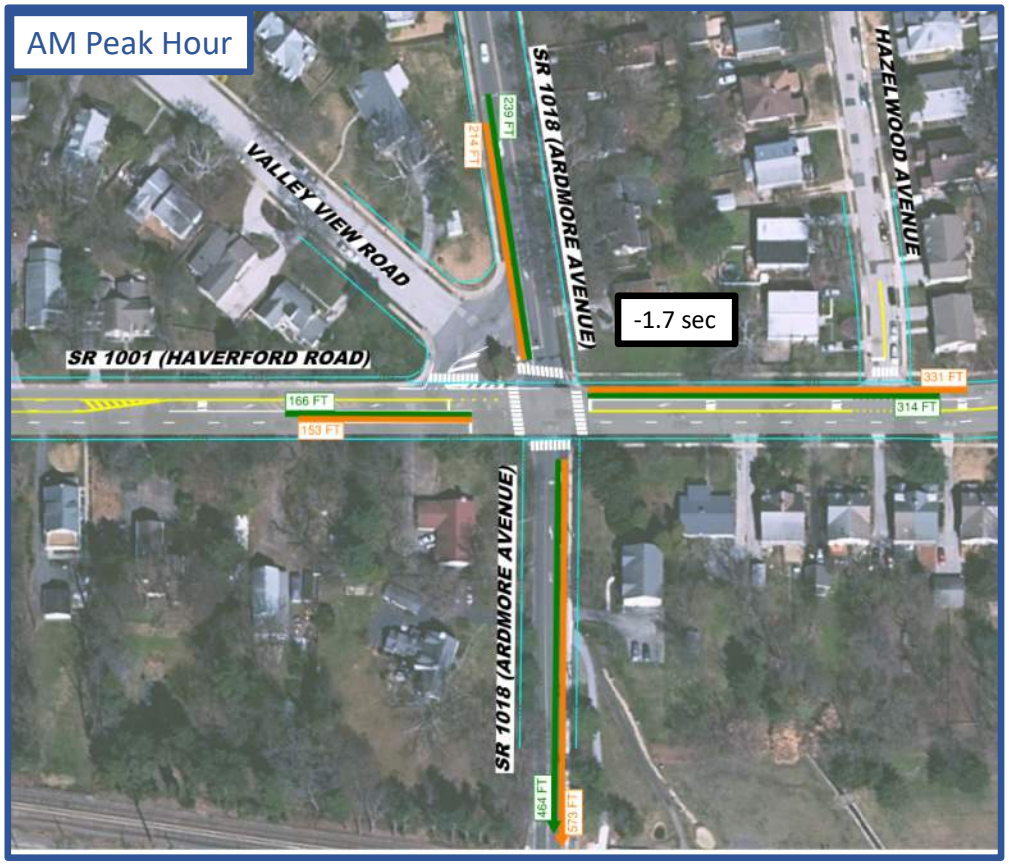
AM Peak Hour

PM Peak Hour

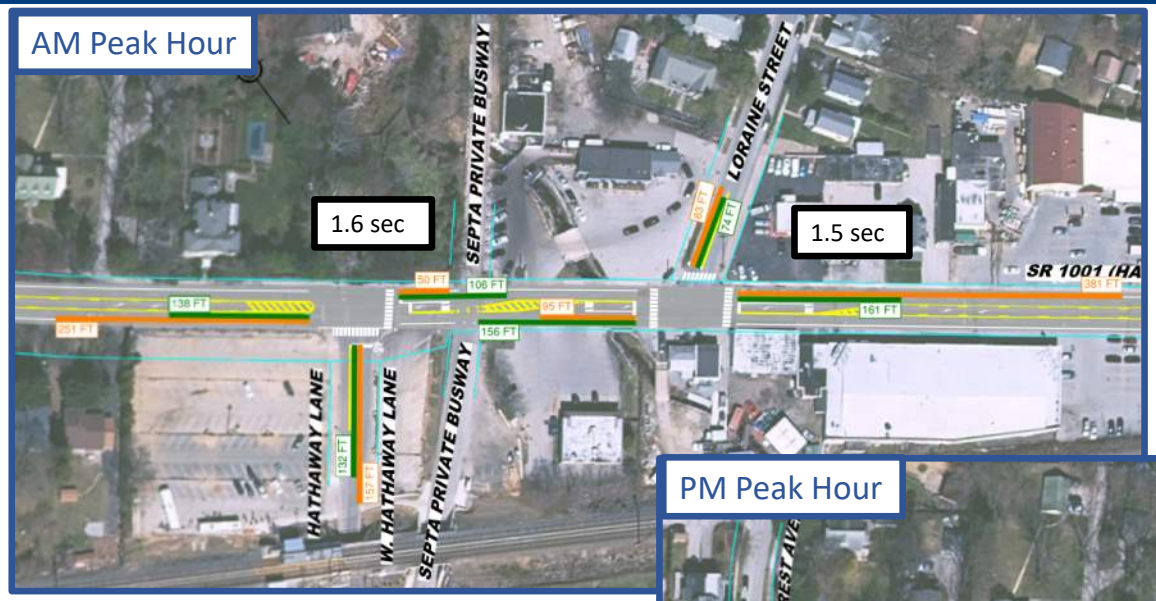
Existing Queue Proposed Queue

PROPOSED CONDITIONS - QUEUES



Existing Queue Proposed Queue

PROPOSED CONDITIONS - QUEUES



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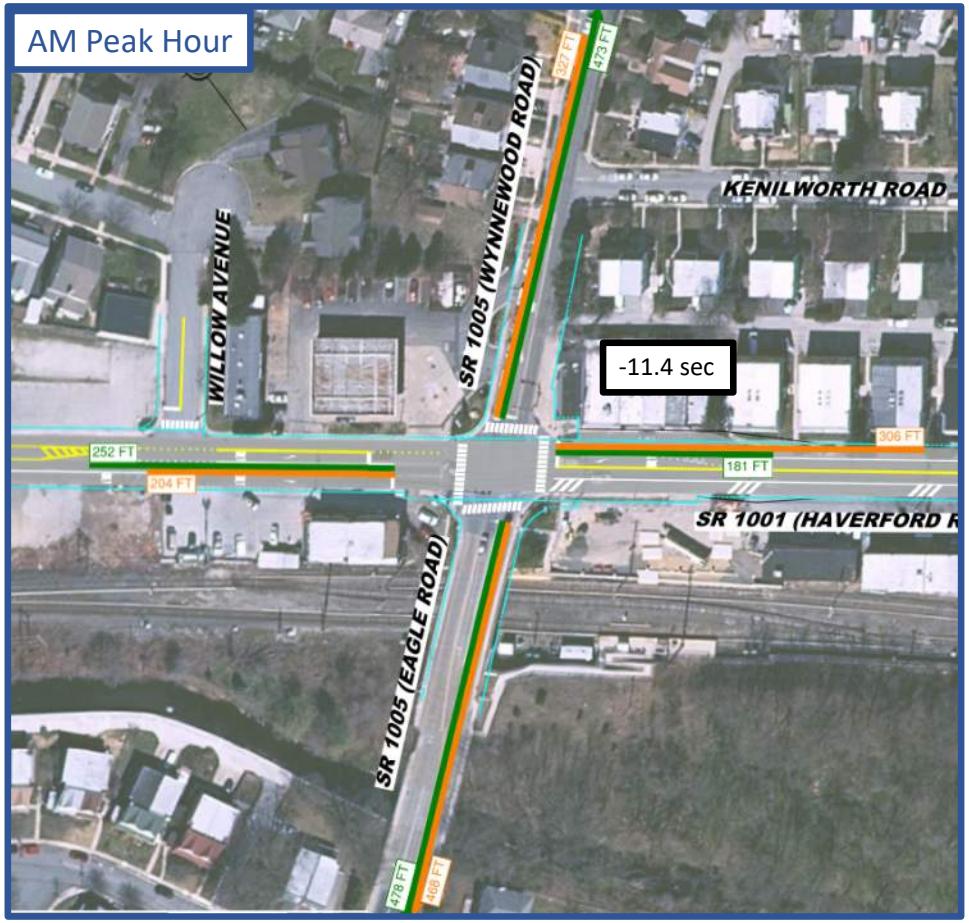
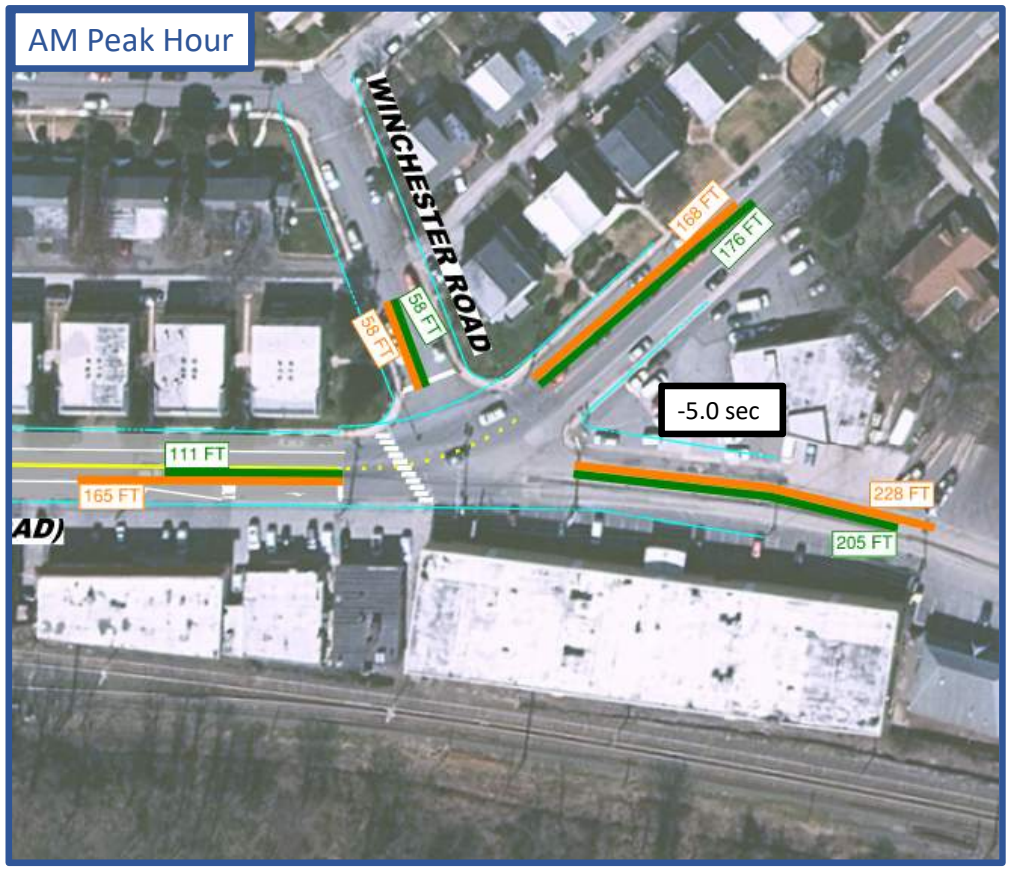
PROPOSED CONDITIONS - QUEUES



Existing Queue Proposed Queue

PROPOSED CONDITIONS - QUEUES



Existing Queue Proposed Queue

SUMMARY

Project Purpose: Improve safety and mobility for all users on this high crash corridor

Project Improvements: Implement a partial road diet with one travel lane northbound, one to two travel lanes southbound and a center two-way left turn lane (CTWLTL)

Road Diets are a proven safety countermeasure shown to reduce overall crashes by:

- Reducing Speeds
- Improving Sight Distance
- Reducing Conflict Points
- Improving Pedestrian and Bicycle safety

Haverford Road Corridor Safety Improvement Project:

- Expected safety improvement of 21% reduction in total crashes and 25% reduction in fatal and injury crashes
- Expected to operate with acceptable intersection delays, queues and corridor travel times

PROJECT SCHEDULE

- Public Meeting – January 2023
- Environmental Clearance – March 2023
- Construction – January 2025

QUESTIONS / COMMENTS

- Enter Questions via Microsoft Teams Meeting Chat
- Fill out Comment Form on Project Webpage