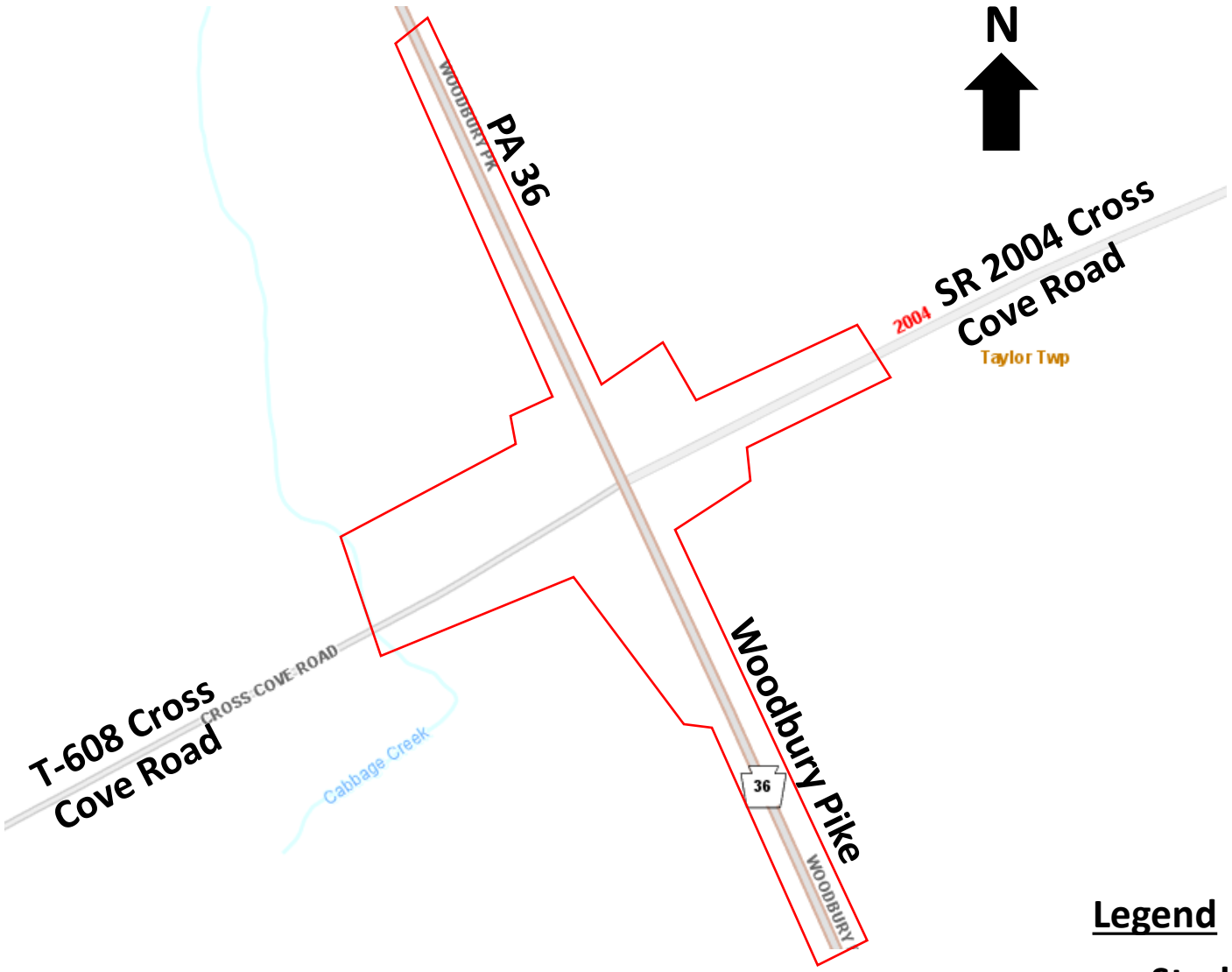
PA 36 (WOODBURY PIKE) & SR 2004 / T-608 (CROSS COVE ROAD) INTERSECTION IMPROVEMENT PUBLIC MEETING

PENNDOT DISTRICT 9-0

MAY 26, 2026

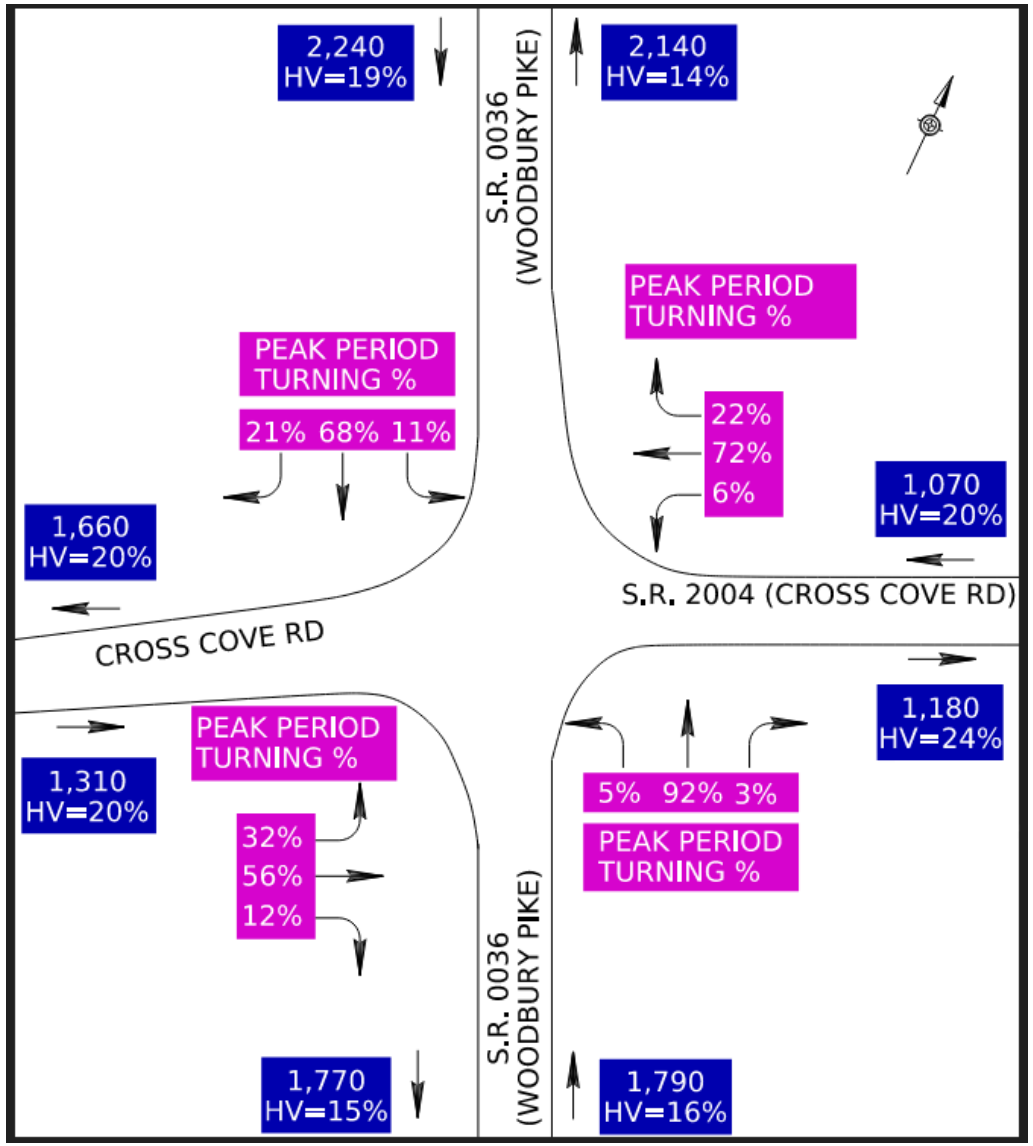
pennsylvania
DEPARTMENT OF TRANSPORTATION

PROJECT AREA



- Current project limits include residential properties, historic properties, and productive farms
- Improvements will consider surrounding constraints including:
  - Environmentally Sensitive Areas
    - Agricultural Resources (ALPP)
    - Above Ground Historic Resources (NRHP)
    - Archaeological Resources
- Evaluation of the surrounding constraints has been developed as part of alternatives analysis process

TRAFFIC VOLUMES & CRASH HISTORY



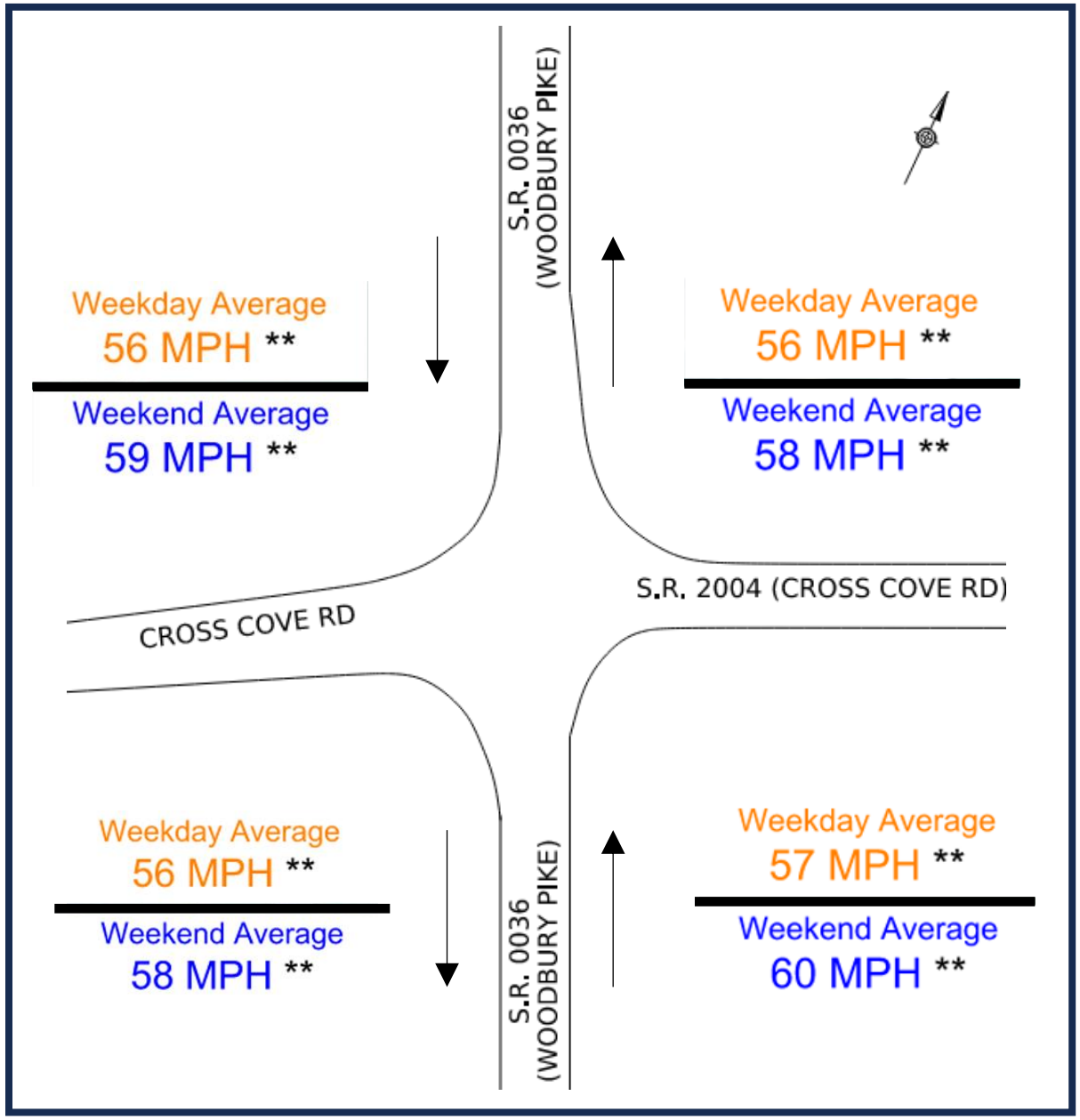
- Vehicle Movements Through Intersection
  - Majority of turning movements are from side roads and crossing NB and SB travel lanes
  - Significant Heavy Vehicle % along all legs

- 5-Year Crash History: 17 reported crashes in the project area from 2020-2024
  - 70% are angle crashes at the intersection
  - 50% of crashes resulted in injury
  - 4 fatalities in the past 12 years
  - Most recent fatalities in 2019 and 2020

RECENT SAFETY IMPROVEMENTS

- Safety improvements along PA 36 installed in 2022
  - Grant funded safety improvements
  - Speed Limit Signs with Speed Display Signs
  - New Overhead Flashing Beacons with Reflective Backplates at the Intersection
  - Cross Road Ahead Signs with Flashing Beacons

SPEED ANALYSIS



- Currently posted at 45 mph
- 2021 Speed Study resulted in reducing speed limit from 55 mph to 45 mph

**85th Percentile Speed is significantly higher than posted speed limit

Note: Typically the 85th Percentile speed is 5 MPH above the posted speed limit; current speeds are much higher

Orange: Weekday
Blue: Weekend

SIGHT DISTANCE

- Existing sight distance from SR 2004 and T-608 along PA 36 meets requirements greater than 45 mph speed limit through project limits

- Noted concerns:
  - Vertical geometry (dip) along southern approach of PA 36
  - Distance of stop signs along side roads from PA 36
  - Crowded sight lines from both SR 2004 and T-608

PROJECT PURPOSE AND PROPOSED IMPROVEMENTS

pennsylvania
DEPARTMENT OF TRANSPORTATION

PROJECT PURPOSE

Primary Purpose:

- Reduce fatal and injury crashes
  - ➢ Directly tied to reducing speed and conflict points
- Be traversable by all users (cars, trucks, farm equipment, school buses, bicyclists, and horse-drawn vehicles)

Considerations:

- Minimize impacts to environmentally sensitive areas and elements
- Minimize impacts to adjacent property owners

PROPOSED IMPROVEMENTS

Concepts:

- Eliminate sag curve (dip) and hidden vehicles
- Construct left turn lanes with traffic signal
- Construct single lane roundabout
- Construct reduced crossing/u-turn (RCUT) intersection

VERTICAL GEOMETRY IMPROVEMENT

Profile adjustment investigated along PA 36 (Woodbury Pike) to improve the vertical geometry

Positives:

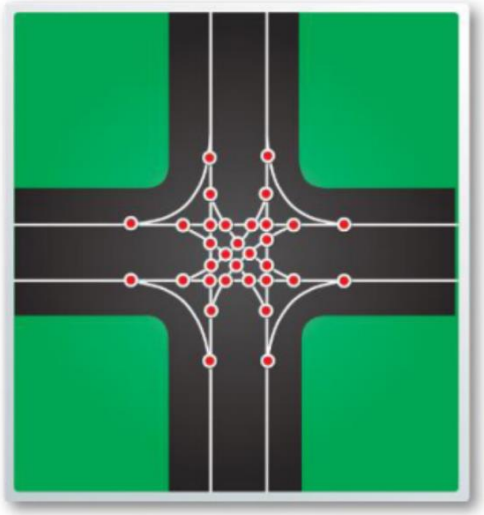
- Provide additional sight distance for the speed vehicles are traveling
- Road edges stay at same location

Negatives:

- May promote faster speeds and not reduce crash potential
- Grading may impact adjacent properties

Improvements to the vertical geometry have been considered as part of each potential improvement to the intersection

1. TRAFFIC SIGNAL



32 conflict points

Conflict Points:

- 32 conflict points (16 crossing conflicts)

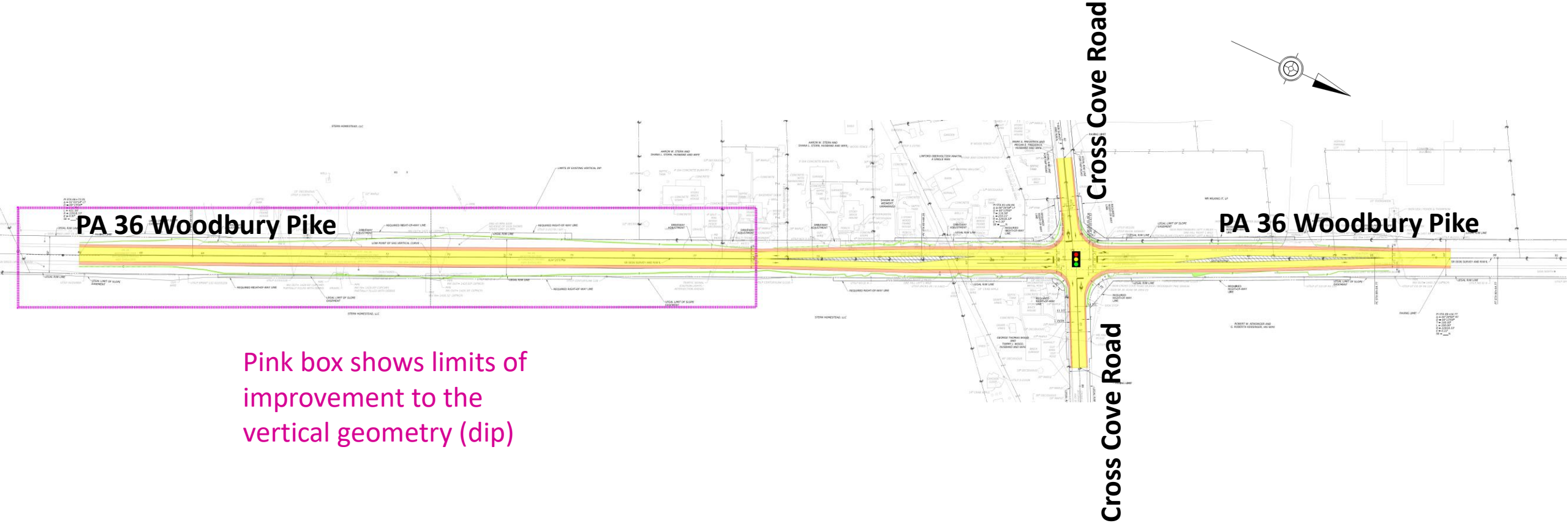
Positives:

- Familiar type of traffic control
- Works well for all vehicle types
- Widening for added left turn lanes fits within right-of-way

Negatives:

- Not warranted at this location
- Potential for high-speed angle crashes remains
- Unexpected location will increase number of high-speed rear end crashes

1. TRAFFIC SIGNAL

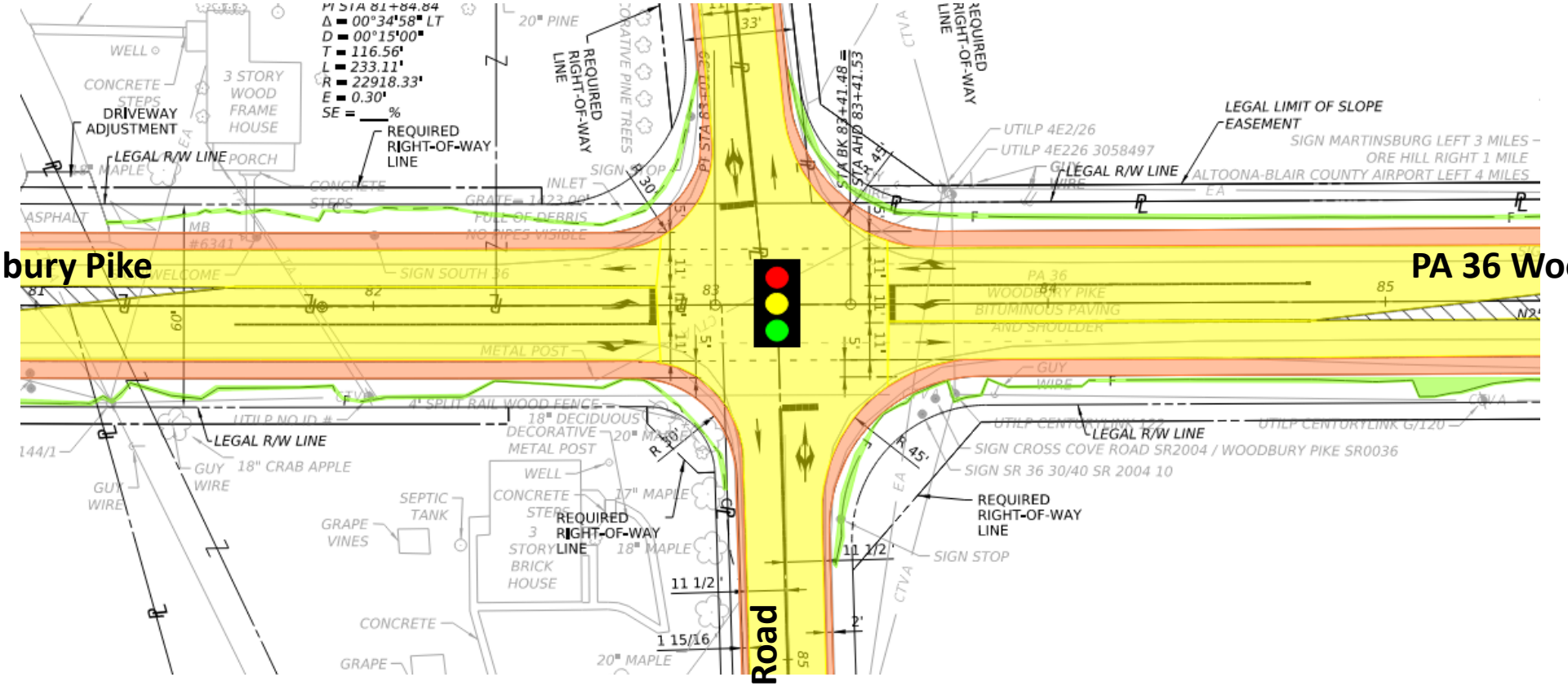


Pink box shows limits of improvement to the vertical geometry (dip)

1. TRAFFIC SIGNAL ENLARGED VIEW

Cross Cove Road

PA 36 Woodbury Pike



PA 36 Woodbury Pike

Cross Cove Road

2. SINGLE LANE ROUNDABOUT

8 conflict points

Conflict Points:

- 8 conflict points (0 crossing conflicts)

Positives:

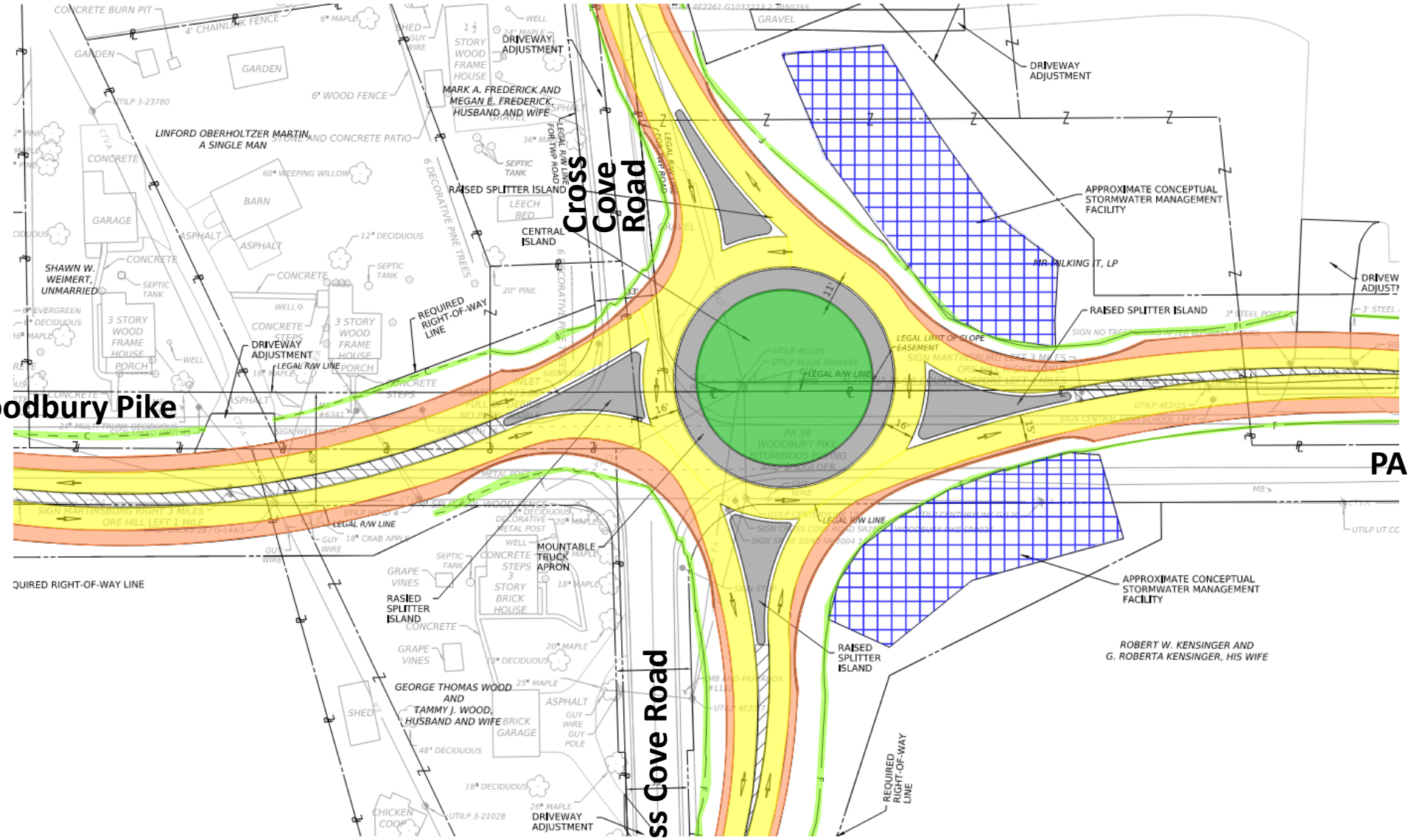
- Safest form of rural intersection control (87% reduction in injury/fatal crashes; 71% reduction in all crashes compared to side street stop signs
- Can accommodate all vehicle types
- Low speed

Negatives:

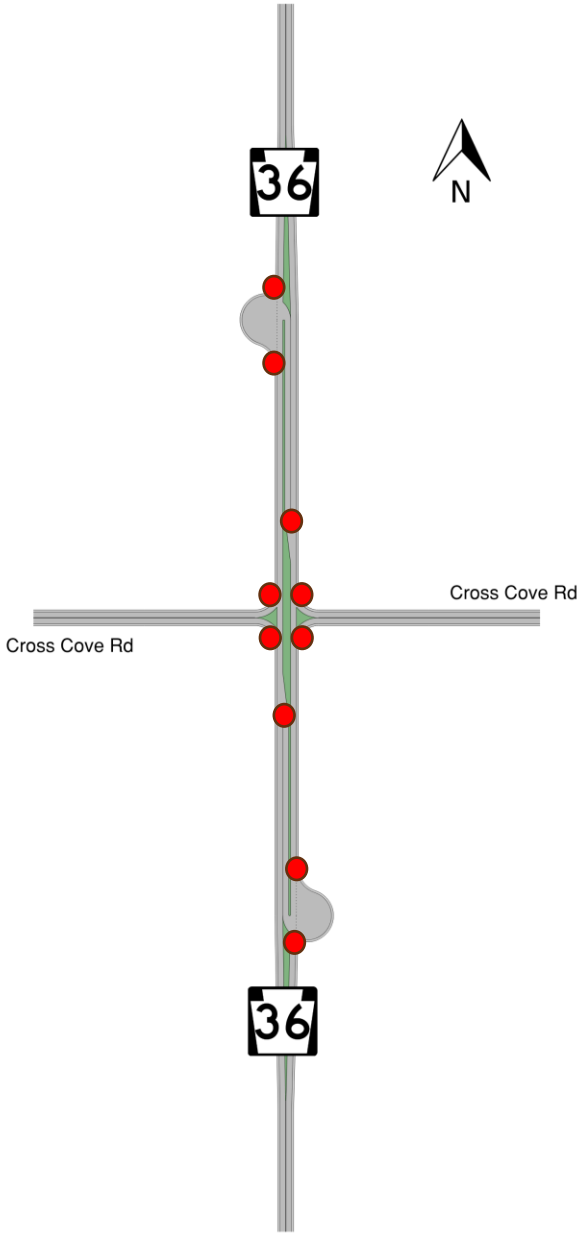
- Not a common intersection type in the area
- Requires relocation of the intersection and acquiring right-of-way
- Requires high speed approach geometry requiring right-of-way

2. SINGLE LANE ROUNDABOUT

2. SINGLE LANE ROUNDABOUT ENLARGED VIEW



3. RESTRICTED CROSSING U-TURN (RCUT)



Conflict Points:

- 10 conflict points (2 crossing conflicts at u-turn locations)

Positives:

- Improves safety by eliminating crossing/left turn maneuvers
- Widening for median/turn lanes fits within right-of-way
- Drivers only look one way

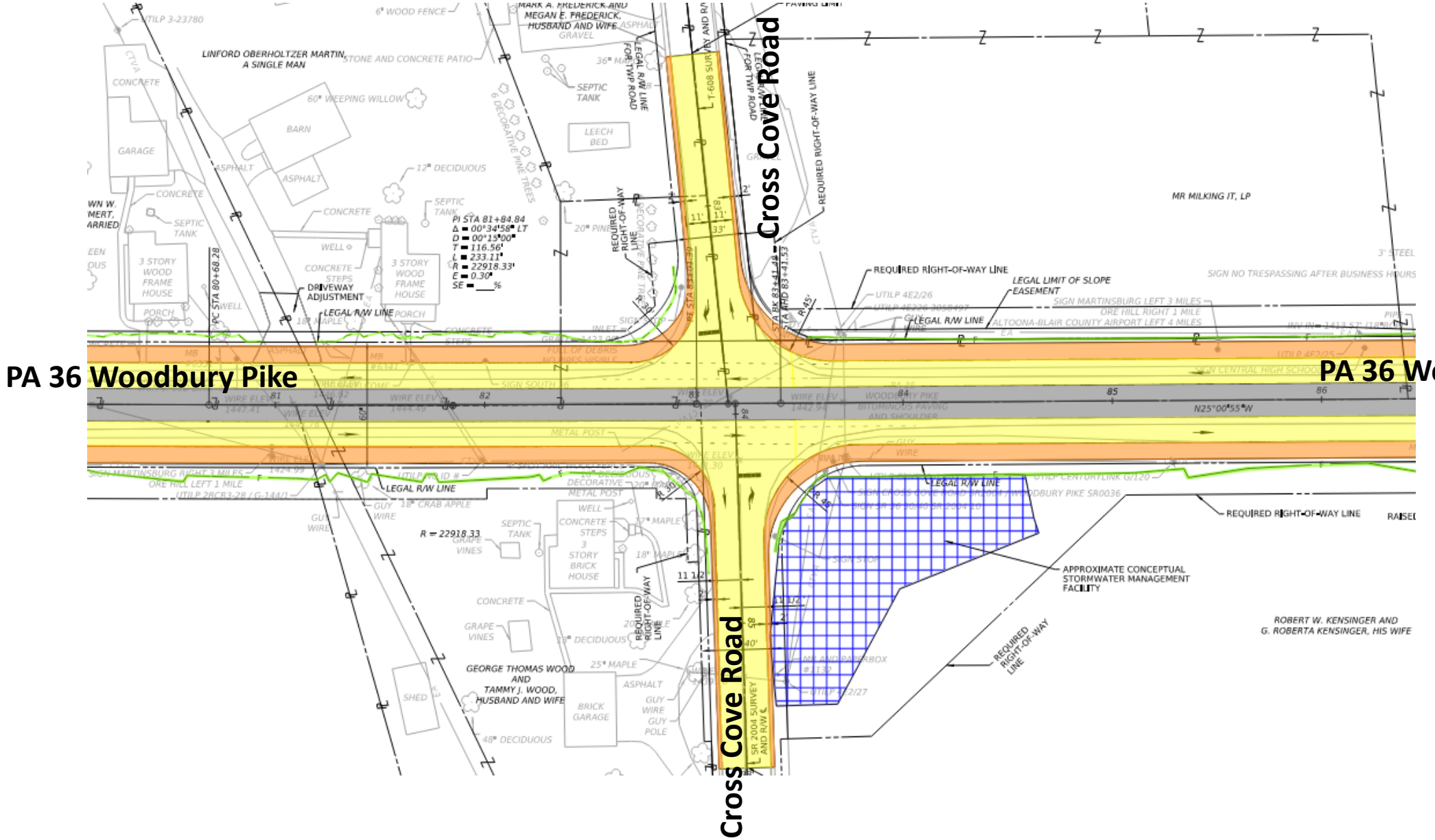
Negatives:

- Not a common intersection type in the area
- Minimal speed reduction
- Longer travel distance
- Requires custom design for large vehicles turning movements
- Introduces median that could be struck

3. RESTRICTED CROSSING U-TURN (RCUT)

Pink box shows limits of improvement to the vertical geometry (dip)

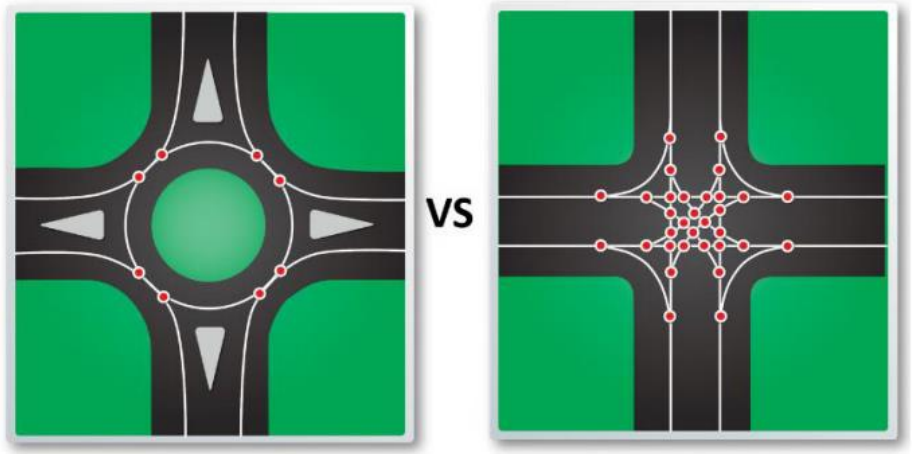
3. RCUT ENLARGED VIEW



RESULTS VS. PURPOSE

Primary Purpose:

- Reduce fatal and injury crashes
  - ➢ Directly tied to reducing speed and conflict points
- Be traversable by all users (cars, trucks, farm equipment, school buses, bicyclists, and horse-drawn vehicles)



8 conflict points
Roundabout

32 conflict points
Traffic Signal

Project Purpose: Improve Safety	Alternative 1	Alternative 2	Alternative 3
	Traffic Signal	Roundabout	Restricted Crossing U-Turn
Reduction Of Fatal And Injury Crashes	*Moderate*	*High*	*Moderate*
Encourages Speed Reduction	*Low*	*High*	*Moderate*
Reduces Conflict Points	*Low*	*High*	*Moderate*
Accommodates Non-Vehicular Users	*High*	*High*	*Moderate*
Includes Geometric Traffic Calming Features	*Low*	*High*	*Moderate*

ROUNDABOUTS

pennsylvania
DEPARTMENT OF TRANSPORTATION

ROUNDABOUTS ACCOMMODATE ALL VEHICLES

Passenger Vehicles:

- Use the circulatory road
- Low speed merge/diverge
- No high-speed angle crashes

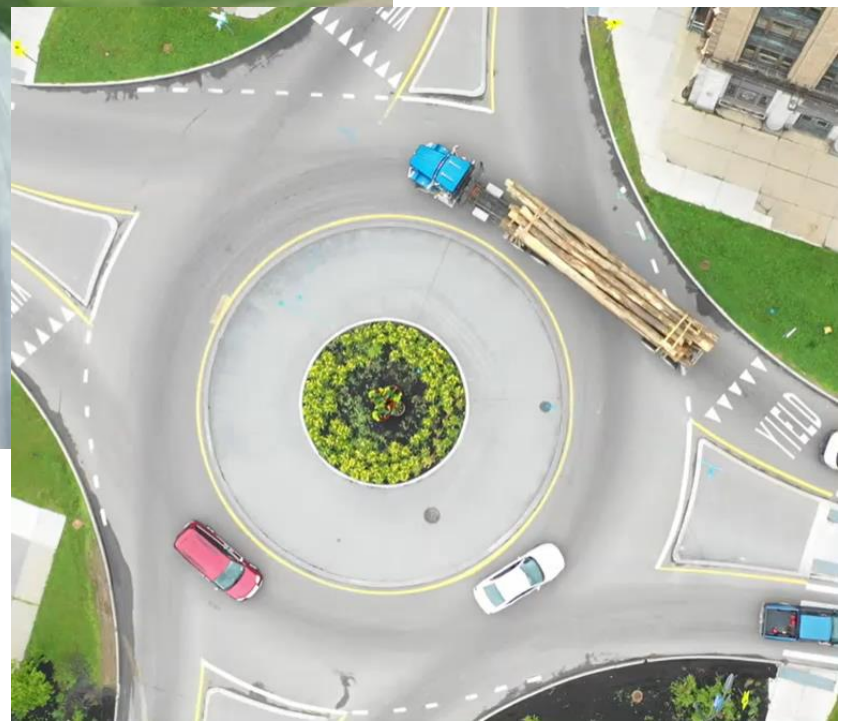
Semi-Trucks

- Sweep path accommodated with central island truck apron
- Similar low speed merge/diverge
- No high-speed angle crashes

Oversize Vehicles/Farm Equipment

- Considered in the design
- Accommodated without traversing curbs

ROUNDABOUTS ACCOMMODATE ALL VEHICLES



Passenger Vehicles:

- Use the circulatory road
- Low speed merge/diverge
- No angle crashes

Semi-Trucks

- Sweep path accommodated with central island truck apron
- Similar low speed merge/diverge
- No angle crashes

Oversize Vehicles/Farm Equipment

- Considered in the design
- Accommodated without traversing curbs

ROUNDABOUTS ACCOMMODATE ALL VEHICLES

Passenger Vehicles:

- Use the circulatory road
- Low speed merge/diverge
- No angle crashes

Semi-Trucks

- Sweep path accommodated with central island truck apron
- Similar low speed merge/diverge
- No angle crashes

Oversize Vehicles/Farm Equipment

- Considered in the design
- Accommodated without traversing curbs

ROUNDABOUTS ACCOMMODATE ALL VEHICLES

Horse drawn vehicles don't typically have issues with roundabouts.

- No high speed vehicles at the intersection
- Easy merging because circulatory speed is approximately 15mph, similar to a horse drawn vehicle
- No crossing conflict points, so no opportunity for angle crashes
- Very rarely require stopping, so speed adjustment to merge

CURRENT PROJECT TIMELINE

✓ Met with stakeholders in August 2025 prior to Alternatives Analysis
✓ Met with stakeholders in March 2026 after Alternatives Analysis
✓ Meeting with Public in May 2026

- Engineering of selected improvement to be completed late 2029
- Construction to begin early 2030
- Construction completed up to approximately 2 years after beginning