

Frequently Asked Questions – 2

(Follow up from Public Meeting held on 3/27/2024)

GENERAL

For more information on roundabouts in Pennsylvania, please refer to the following links

[PennDOT Roundabout website](#)

[Multi-Lane Roundabouts – General Information and Driving Tips for Motorists](#)

[Roundabouts – General information for Bicycles and Pedestrians](#)

[Lower Merion Township Zoning Code – Article 6 – Special Districts](#)

1. What are some nearby examples of roundabouts?

[Walnut Lane Roundabout](#)

[Roundabout near Please Touch Museum](#)

[Roundabout at Newtown Street and St Davids Road](#)

2. What other intersections are being converted from a signal to a roundabout in the area?

Roughly 30 intersections across the state have been or are being converted from signalized intersections to roundabouts. This includes projects that are completed, in construction and in design. A couple local intersections are listed below;

Philadelphia County → [Philmont Ave Roundabout \(in design – multilane “hybrid”\)](#)

Philadelphia County → [Penrose Roundabout \(in construction – single lane\)](#)

Bucks County → [US 202 AND PA 179 Roundabout \(in design – single lane\)](#)

Montgomery County → [Main Street and Egypt Road \(in design – multilane “hybrid”\)](#)

3. Are there any roundabouts of similar context to Belmont and St Asphas Rd in Pennsylvania, if so, how do those perform?

There are no full multilane roundabouts (with 2 lane entries and exits on all approaches) in Pennsylvania. However, there are several “hybrid” roundabouts with very similar context to Belmont and St Asphas. A “hybrid” roundabout consists of 2 lane and 1 lane approaches depending on the traffic volumes.

The closest contextual roundabout to Belmont Road and St Asaphs Road in Pennsylvania is the “Big I” roundabout in Meadville PA ([intersection location](#)). The “Big I” roundabout was completed in 2020 and has experienced a reduction in severe and injury related crashes.

4. Why was a traffic signal with added left turn lanes not selected as the preferred alternative?

This project utilizes Highway Safety Improvement Program (HSIP) funding which requires a safety benefit evaluated through an Highway Safety Manual (HSM) analysis. When compared to

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signalized alternatives, the roundabout showed the largest reduction in crashes therefore was selected as the preferred alternative.

5. How do roundabouts work with automated/self-driving vehicles?

Refer to [NCHRP 1043 – Guide for Roundabouts \(2023\) Section 4.7.](#)

6. Who maintains the roundabout? What landscaping elements will be included in the central island?

Both PennDOT and the municipality will have maintenance responsibilities once the project is completed. Those responsibilities will be stated in a maintenance agreement that needs to be agreed upon and signed before the project goes to construction.

Typically, PennDOT will maintain the pavement, curbing, drainage, concrete aprons, splitter islands and the local municipality will maintain pavement markings, signage, lighting, rectangular rapid flashing beacons, landscaping, snow removal of sidewalks/trail (unless otherwise noted in local zoning codes).

Landscaping design will be coordinated with the township before construction and included in the project.

TRAFFIC OPERATIONS

1. What are the differences between a modern roundabout and a NJ Traffic Circle?

Roundabouts are designed to be as small as practical to accommodate continuous, slow-moving traffic. Entering traffic must yield to circulating traffic. Traffic Circles vary significantly in size and traffic speeds. Entering traffic or circulating traffic may be controlled with stop signs or traffic signals. There may even be parking within the circle.

(source: [PennDOT Roundabout Website](#))

2. How do roundabouts handle emergency services (fire trucks, ambulances, police cars)?

Emergency services will navigate the intersection as they would a signalized intersection. Vehicles are expected to move over to outside lanes to allow for emergency services to navigate the intersection safely and efficiently. The splitter islands and truck apron are mountable and able to be driven over if necessary.

3. How does the roundabout accommodate nearby access points to make left turns out of the properties?

Roundabouts can be a useful access tool while reducing speeds. Local residents near the roundabout will typically observe slower speeds, which creates longer gaps between vehicles.

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Moreover, roundabouts can provide U-turn opportunities more safely and efficiently than at other intersections.

4. How did PennDOT analyze regional traffic diversions (If City Ave backs up, there will be an influx of traffic at the project intersection) including special events?

Regional traffic diversions were not a part of the scope of this safety project. An analysis was performed with the adjacent intersections to ensure that they did not back up into the roundabout.

The design accommodates emergency and special events that may divert traffic towards the intersection.

During special events, the roundabout will function the same as a signalized intersection. Roundabouts typically clear traffic faster than a backed up intersection.

5. How does a roundabout slow down vehicles?

The roadway curvature encourages reduced vehicle speeds and entering traffic must yield to circulating traffic.

The essential characteristics of all roundabouts include:

- Traffic travels counterclockwise around a center island
- Vehicles entering the roundabout yield to traffic already circulating
- Roundabouts result in lower vehicle speeds, generally 15-25 miles per hour

(source: [PennDOT Roundabout Website](#))

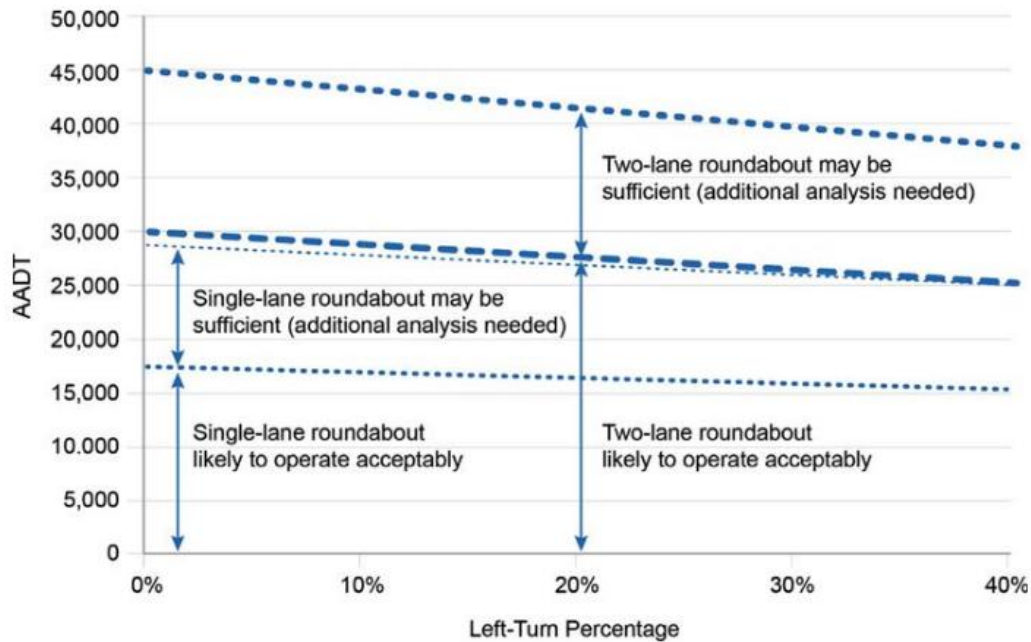
6. How many vehicles can a multilane roundabout handle before it fails operationally?

Based on the planning level estimates provided by *[NCHRP 1043 – Guide for Roundabouts \(2023\)](#)* *Figure 8.2* shown below, vehicles per day are not the only contributing factor to size of a roundabout, but also the left turning percentage. The approximate intersection ADT for this project is 32,300 for the 2047 design year (including the nearby development growth).

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Exhibit 8.2. Planning-level daily intersection volumes for a four-leg roundabout.



DESIGN/SCHEDULE/CONSTRUCTION

7. How long will construction take?

Construction is expected to take approximately 18 months. There are many factors that will determine the overall duration of construction, including utility relocations, time of year the contractor gets notice to proceed (NTP), fabrication times of signal equipment and lighting and overall staging concept.

Currently, construction is expected to begin in the spring of 2027. PennDOT is not anticipating overlapping nearby construction projects that would impact detour routes.

7. What utility impacts are expected and how much will that cost?

PennDOT is anticipating both above and below ground relocations. Costs will be determined in final design.

8. Will there be dedicated bike lanes on Belmont Rd and/or St Asphas Rd?

This project is not constructing dedicated bike lanes. The project is including a proposed sidewalk level multi-purpose path that is part of the [Main Line Greenway & Pedestrian Mobility Map](#)

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9. How much land will be taken around the intersection? How much of the existing stone wall on Sutton Terrace's frontage will be impacted?

The amount of land necessary for the construction of the proposed roundabout is still being finalized. It is anticipated that four properties will be impacted with partial sliver right-of-way takes including required right-of-way, required permanent easements and temporary construction easements.

SAFETY

10. What is being proposed to improve the safety of vulnerable road users (bikes and pedestrians)?

Roundabouts slow vehicle speeds at the intersection resulting safer crossings. The added median, or splitter island provides shorter crossing distances and provides refuge for pedestrians to focus on one direction of traffic at a time while crossing. Approach signing, striping and overhead rectangular rapid flashing beacons will be included in the project.

11. How do the crashes at this intersection compare to other similar intersections?

Based on an HSM screening of the intersection, the intersection experiences nearly double the amount of crashes of similar intersections.

12. What can be done for speeding along the corridors that are outside the project limits?

Contact your local representative about speed mitigation measures that can be done through the township and/or PennDOT as part of a separate project.

13. How do roundabouts benefit the elderly population of the area?

Refer to NCHRP 1043 – Guide for Roundabouts (2023) Section 4.3 – Passenger Cars and Motorcycles.

Roundabouts can offer benefits to older drivers, and slower speeds can benefit both novice and older drivers as each navigates the roadway. Some potential benefits of slower intersection speeds include reduced crash severity (for a given crash type), safer merges, and more opportunities to correctly judge and enter gaps.

The slower and consistent speeds at roundabouts can cater to the preferences of older drivers by

- *Allowing more time to make decisions, act, and react;*
- *Providing less-complicated situations to interpret;*
- *Reducing the need to look over one's shoulder;*
- *Reducing the need to judge closing speeds of fast traffic accurately; and*
- *Reducing the need to judge gaps in fast traffic accurately.*