# STATE ROUTE 113 AND MINSI TRAIL ROUNDABOUT TRAFFIC SAFETY PROJECT

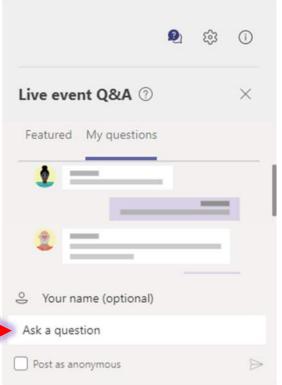


#### Meeting Instructions:

 If you have a question during the presentation, use the Q&A Button at the top of the Microsoft Teams window to input and post your question



 Questions will be answered at the end of the presentation







#### Agenda:

- Project Location
- Project Purpose
- HSIP Funding
- Roundabout Safety Aspects and Statistics
- Proposed Improvements
- Video of the Traffic Model
- Safety Benefit
- Temporary Traffic Control
- Project Schedule
- Questions





#### **Project Location**

### State Route 113 and Minsi Trail Hilltown Township, Bucks County



**PLAN VIEW** 





#### Souderton Road (State Route 113)

- 45 mph Posted Speed
- Current Average DailyTraffic = 6,231 (Year 2023)
- Design Year Average Daily Traffic = 6,641 (Year 2045)
- Truck Percentage = 11%









#### Minsi Trail (State Route 4019)

- 40 mph Posted Speed
- Two-way Stop Controlled
- Current Average DailyTraffic = 2,719 (Year 2023)
- Design Year Average Daily
  Traffic = 2,898 (Year 2045)
- Truck Percentage = 9%









#### Project Purpose

- The intersection has a history of severe crashes.
- 31% of reported crashes had suspected serious, minor, or possible injury
- The intersection has a history of angle crashes.
- 78% reported crashes were angle crashes.
- 94% of crashes had no weather or environmental factors



#### Highway Safety Improvement Program (HSIP) Funding

- PennDOT receives federal funding from FHWA for its Highway Safety Improvement Program (HSIP).
- HSIP funding is based upon projected reductions in fatal and injury crashes.
- Data driven safety analysis using the federal Highway Safety Manual (HSM)
- Overall purpose is to achieve a significant reduction in traffic fatalities and serious injuries on state roads through implementation of infrastructure-related highway safety improvements and countermeasures



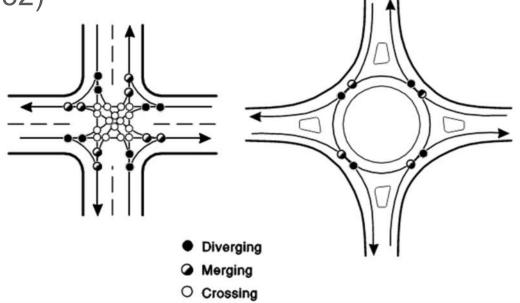


#### Roundabout Safety Aspects

- FHWA Proven Safety Countermeasure (2008)
- Geometrically Designed for Safety
  - Reduces vehicle speeds (20-25 mph)
  - All turns are right turns
  - Simplifies decision making



- Reduces conflict points (8 vs. 32)
- Eliminates crossing conflicts
- Reduces crash severities









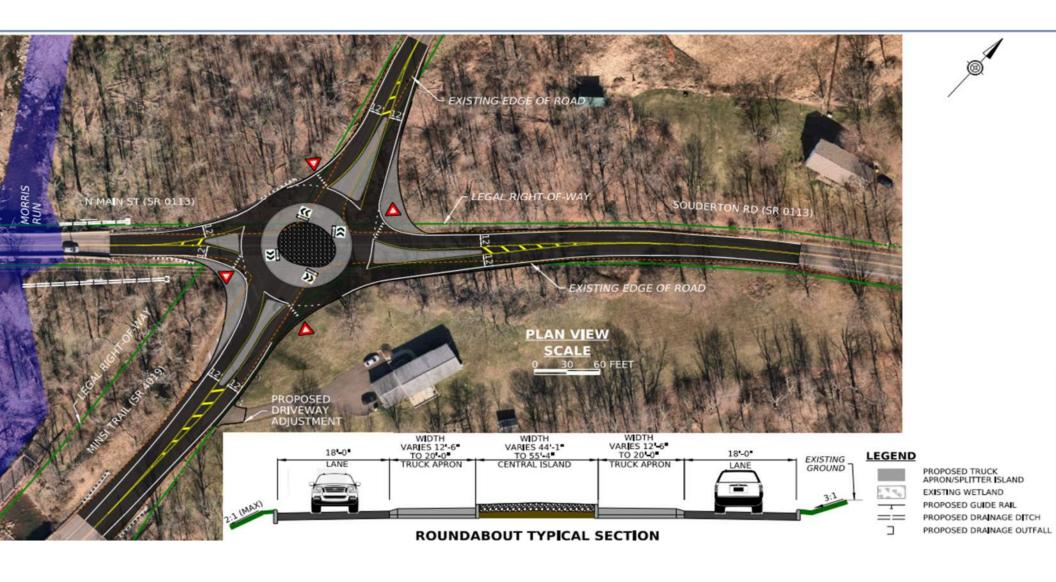
#### Roundabout Safety Statistics

- National Statistics:
  - 90% reduction in fatal crashes
  - 75% reduction in injury crashes
- PennDOT Statistics (09/2022 Case Study)
  - 36 roundabouts on State Routes
  - Intersections were converted from Stop- or Signal-Controlled
  - Serious Injuries reduced by 76%
  - Minor Injuries reduced by 22%
  - Other Injury Crashes reduced by 70%





#### Proposed Improvements







#### Video of the Traffic Model



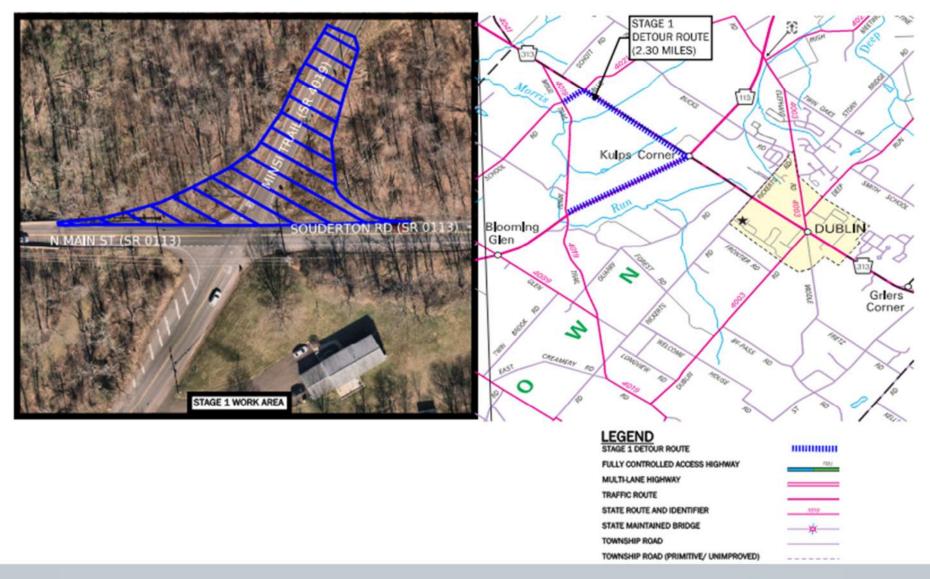


#### Safety Benefit

- The Highway Safety Manual (HSM)
  - 51 Reportable Crashes (5-Year Study Period)
  - 78% Reported Crashes were Angle Crashes.
  - 82% Reduction in Crashes
  - 82% Reduction in Fatal and Injury Crashes



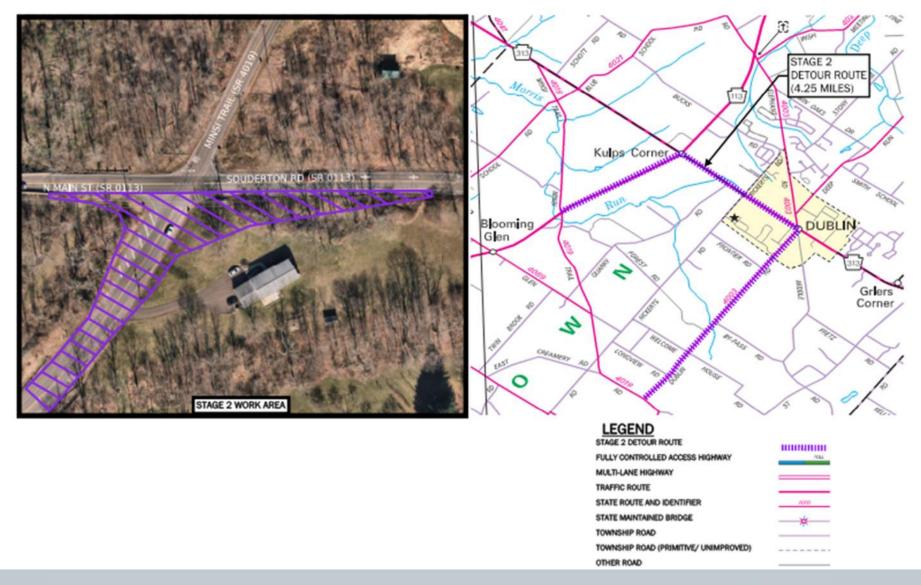
#### Proposed Detour – Stage 1







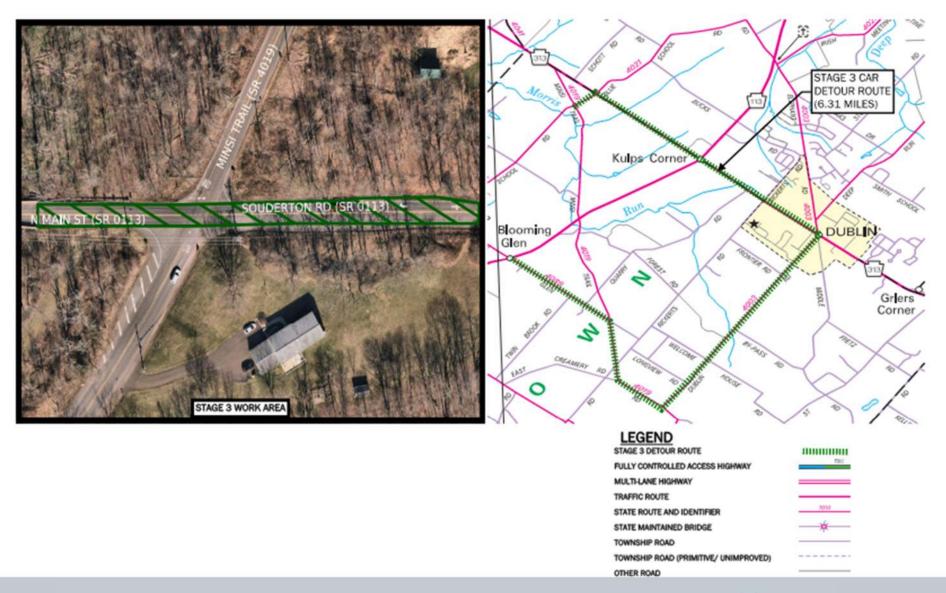
#### Proposed Detour – Stage 2





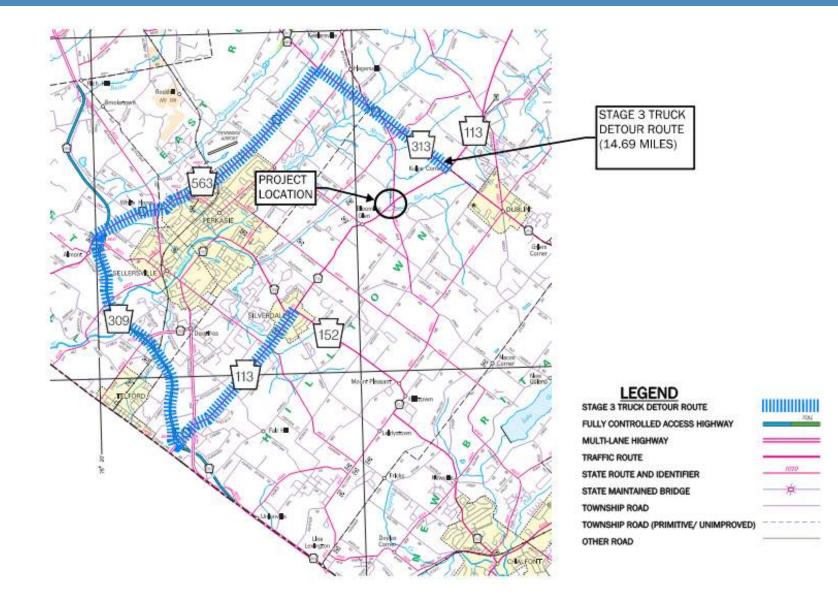


#### Proposed Detour – Stage 3





#### Proposed Truck Detour







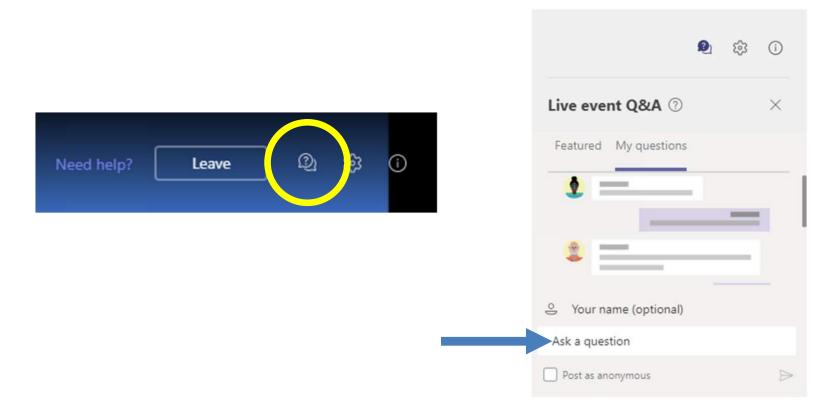
#### Project Schedule

- Final Design Summer/Fall 2023
- Construction Summer 2025



## QUESTIONS

Please use **Meeting chat** at the top of the Microsoft Teams window to type & post your question.







#### Comment Response Form

Please take a few minutes to fill out this comment form so that we may better understand your concerns and improve these meetings for the future. When you are finished, please submit it electronically.

Link Provided in Q&A





Please visit the project website for more information:

#### Link Provided in Q&A



