PennDOT ROUNDABOUT UPDATES

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ITE, LANCASTER
APRIL 17, 2026

Pennsylvania
Department of Transportation

INVENTORY IN TSAMS

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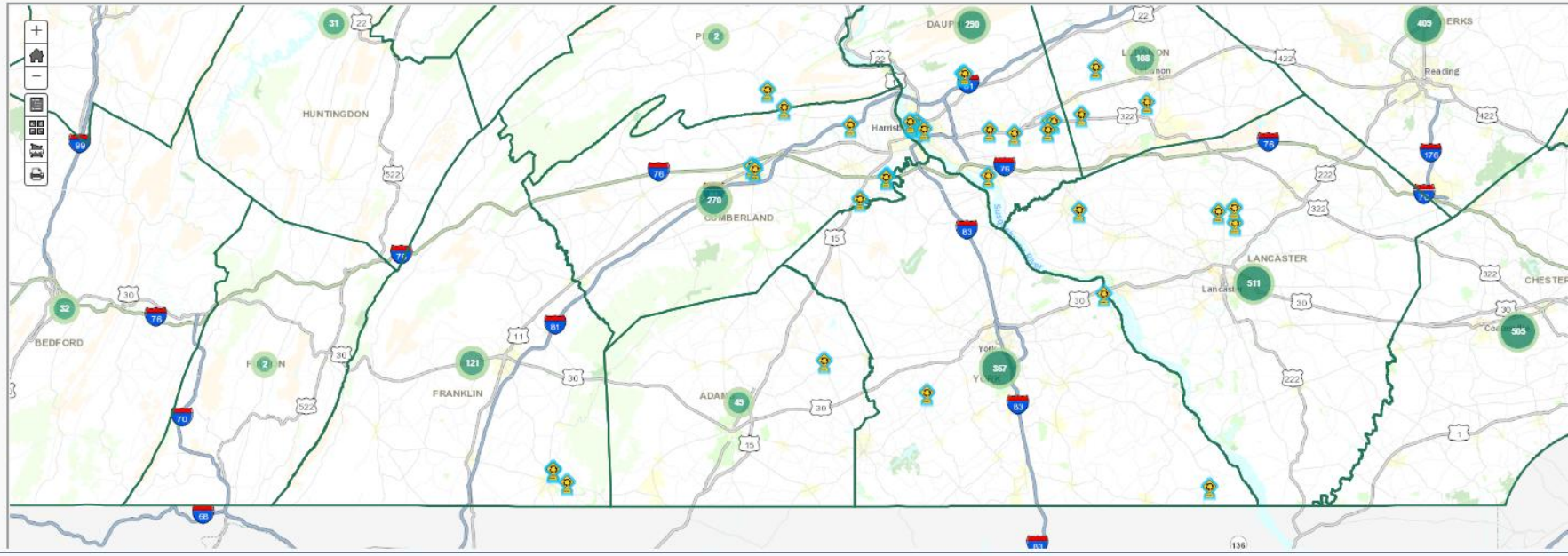
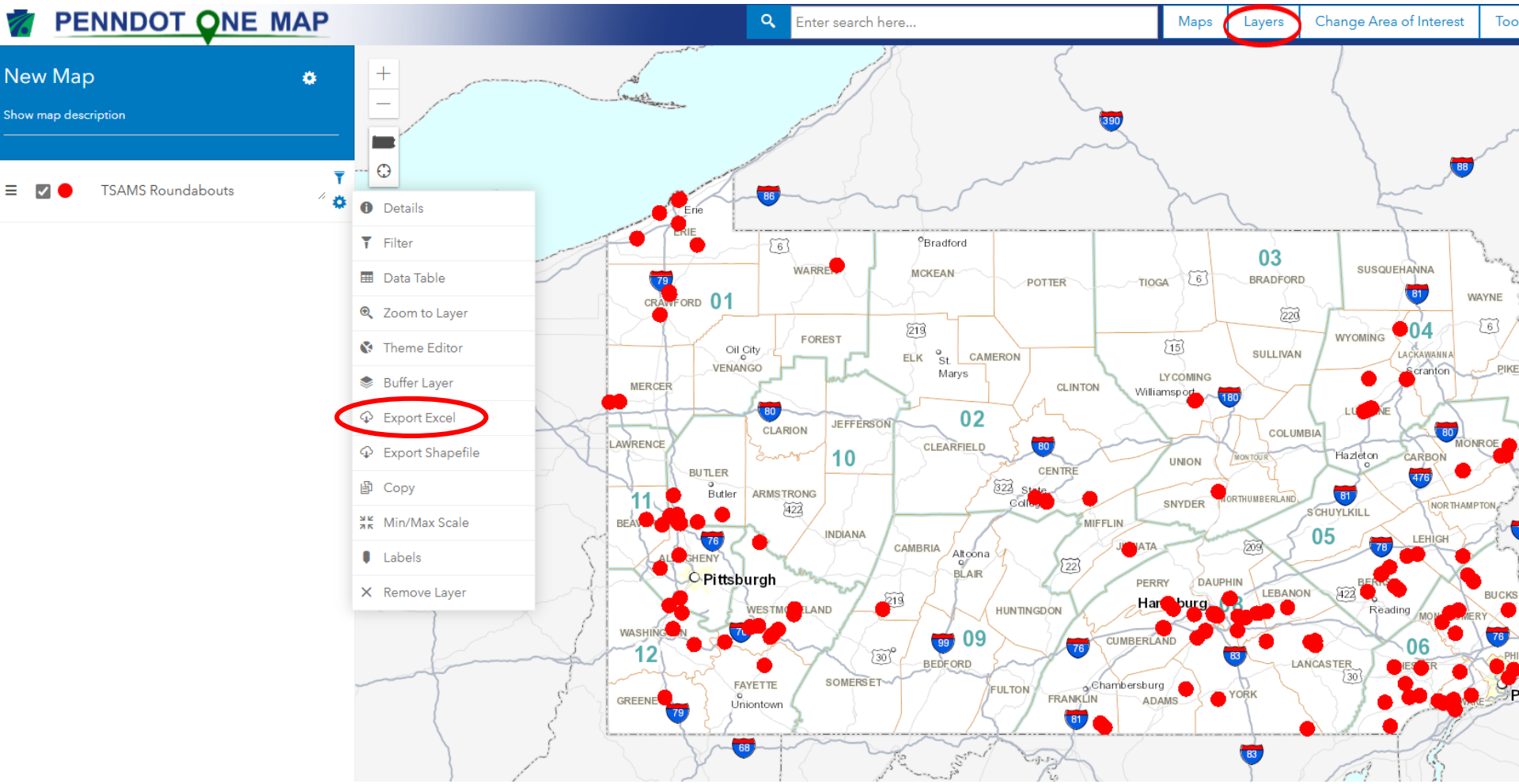


Search Criteria: Search Type: Roundabout

Records 1 to 25 of 36 — Page 1 of 2

Roundabout ID #	District	County	Muncipality	Street Name	Rounda
3	08	66 - York	427 - SPRING GROVE	SR 0116 (Main St.)	Built
5	08	66 - York	224 - PEACH BOTTOM	SR 0074 (Delta Rd.)	Built
9	08	36 - Lancaster	101 - MANHEIM T	Millport Road	Built
14	08	38 - Lebanon	213 - SOUTH LONDONDERRY	SR 0117 (S Forge Rd)	Built
16	08	22 - Dauphin	208 - LOWER PAXTON	Blue Mountain Pkwy.	Built
17	08	22 - Dauphin	208 - LOWER PAXTON	SR 3019 (N. Mountain Rd.)	Built

PENNDOT ONEMAP

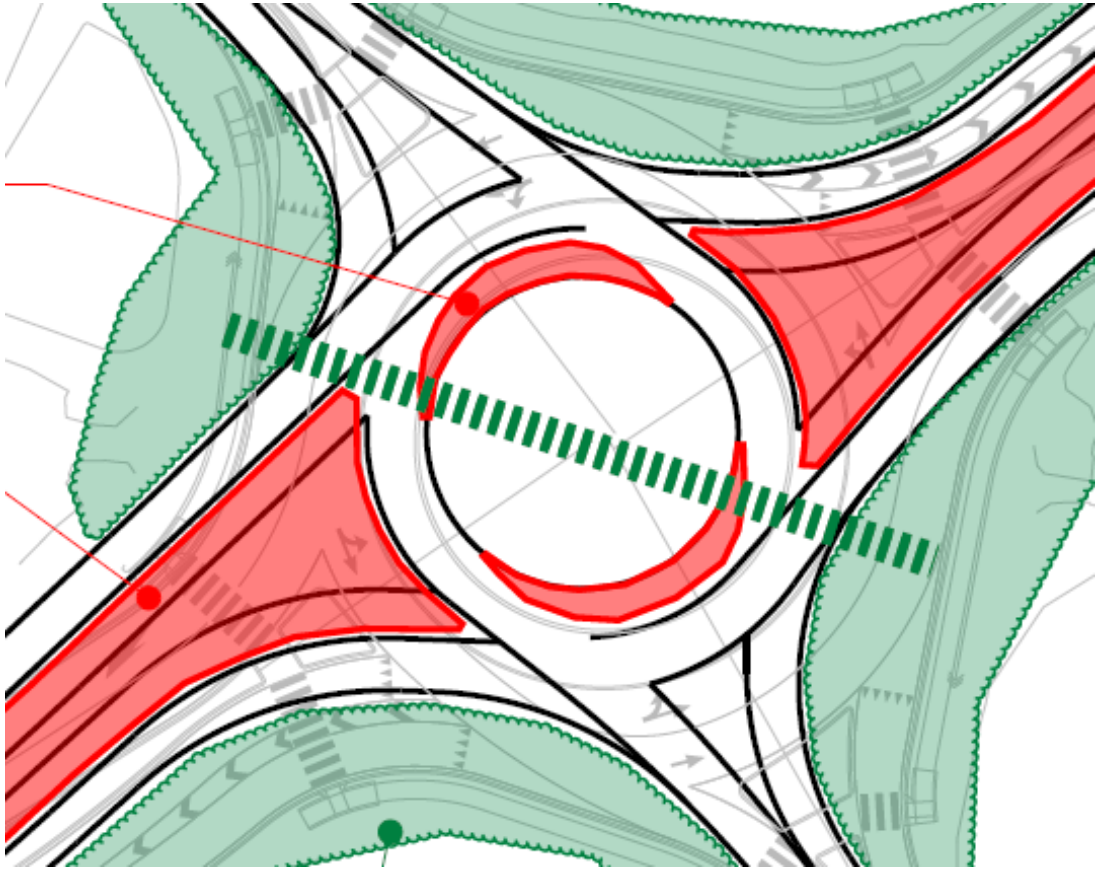


100+ built on State Routes!

DESIGN QUALITY

- Roundabout designs are iterative and can be complex
- Peer reviews are an extra check to ensure high quality design
  - Crashes - fewer and less severe
    - Fastest path – improves yield rates & lowers crash severity
    - Sight lines – avoid too much or too little
    - Path alignment – vehicles should follow a natural path
    - Avoid excess capacity – common reason for excess crashes

INTERIM & ULTIMATE



- Design a multi-lane and back into a single lane
- Widen to <u>inside</u>, i.e., hold outside curbline:
  - Inlets & drainage
  - Sidewalk
  - Driveways
  - Utilities
  - Grading/ditches/ROW
- Widen to outside – if unlikely to need widening

- Peer Review – Level 1
- Submit geometric design & performance checks for <u>both</u> interim & ultimate

MAINTENANCE

Low Maintenance:

- Paint lines in wheel paths
- Trucks & oversize turning templates
  - use 1’ -2’ curb offset
- Inlet tops

PUBLIC PERSPECTIVE

- Easy to navigate
- Few crashes
- No issues for trucks
- No truck roll-overs:
  - Vertical profiles
  - Keep speeds low
  - Cross slopes of travel lanes and truck apron

➡ Better acceptance and less opposition by the public

➡ More roundabouts will get built

➡ Lives will be saved

PEER REVIEWS

- Pub. 10X, DM-1X, Appendix AC, Peer Review process
  - Updated Nov. 2025 for revised thresholds for RAB Peer Reviews
    (also updated Appendix Q, POA, for new Interstate access regulation)
- Peer Review Levels:
  - Level 1: Central Office (CO) staff & CO Consultant
  - Level 2: CO staff

PEER REVIEWS

Operational Peer Review

Level 1:

- Intersection design year ADT is ≥ 20,000 (*previously 15,000*)
- Traffic volumes require more lanes than a Single Lane and/or right-turn or bypass lanes

PEER REVIEWS

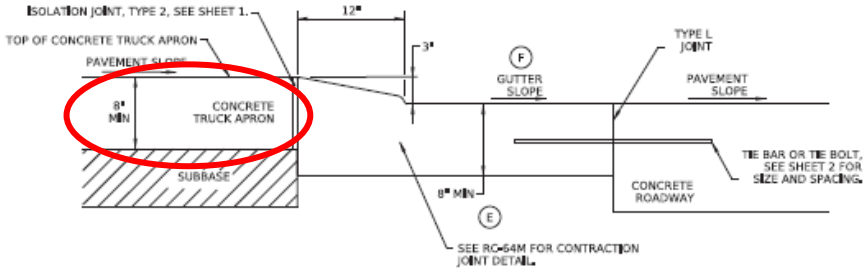
Geometric Peer Reviews:

Level 1:

- Multi-Lane & Hybrid
- Single Lane with more than four legs
- Single Lane with skewed approaches
- Unconventional or unusual geometric layout such as a roundabout on a steep inclined plane, non-circular roundabout shape, or Stopping Sight Distance (SSD) less than required, etc.

CURBS AND JOINTS

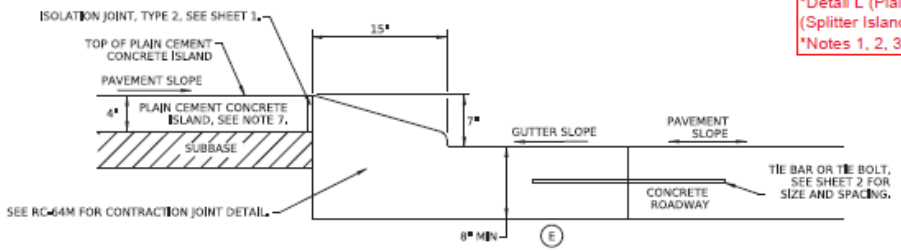
- Pub. 72M, Roadway Construction Standards, Change #1
  - RC-20M - Concrete roundabouts
  - RC-64M - Asphalt roundabouts
- Anticipate publishing April 2026



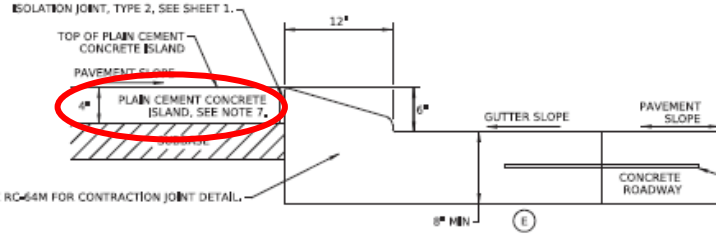
DETAIL I
PLAIN CONCRETE MOUNTABLE CURB GUTTER, ROUNDABOUT TRUCK APRON CURB

(E) IF INLETS ARE PRESENT, THE GUTTER WIDTH IS TO MATCH THE INLET WIDTH.

(F) THE GUTTER SLOPE IS TO MATCH THE PAVEMENT SLOPE.



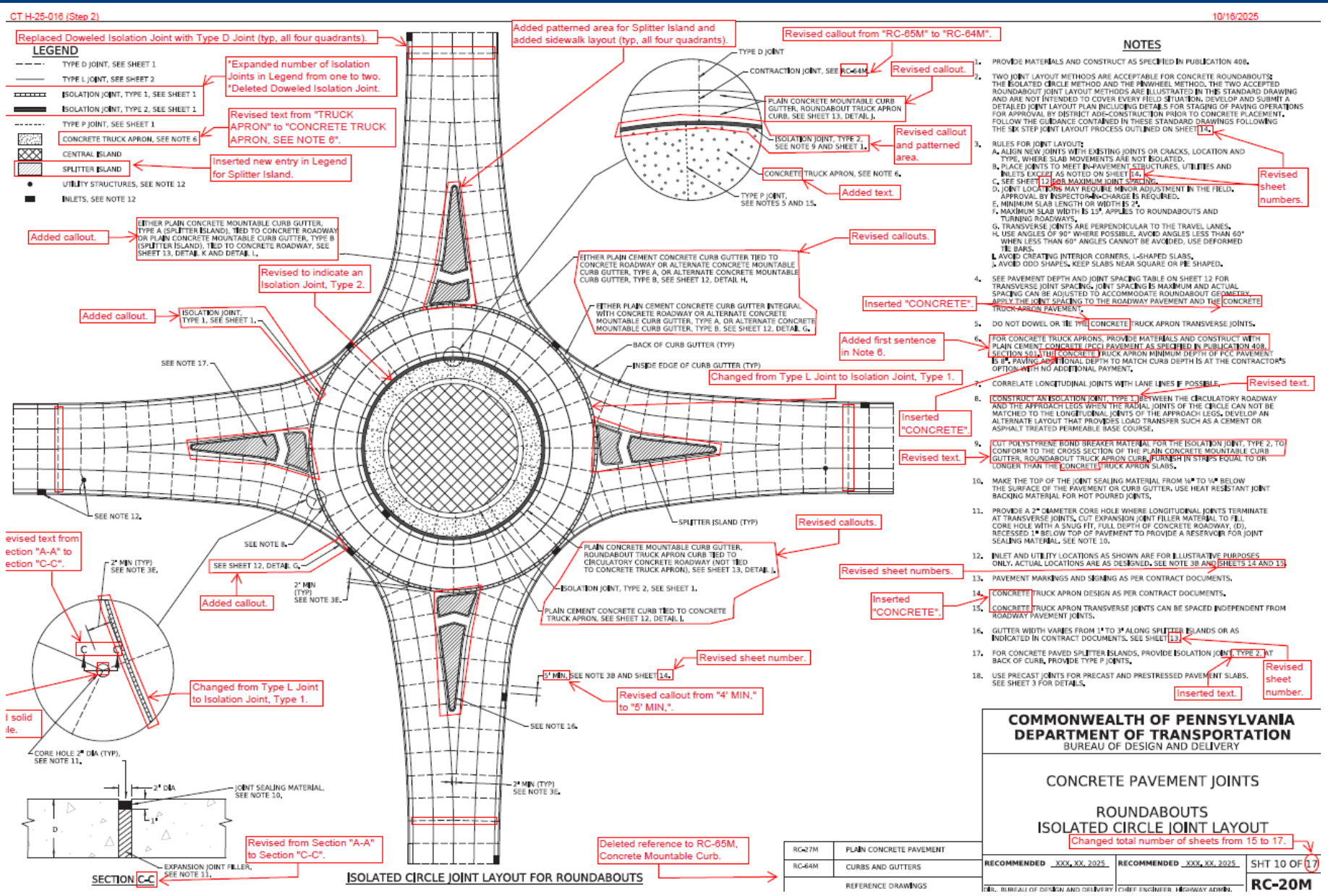
Inserted new Sheet 13 of 17 (Concrete Pavement Joints, Roundabouts, Curb and Joint Details, Plain Cement Concrete Pavements) with the following:
*Detail J (Plain Concrete Mountable Curb Gutter, Roundabout Truck Apron Curb)
*Detail K (Plain Concrete Mountable Curb Gutter, Type A (Splitter Island) Tied to Concrete Roadway
*Detail L (Plain Concrete Mountable Curb Gutter, Type B (Splitter Island) Tied to Concrete Roadway
*Notes 1, 2, 3, 4, 5, 6, and 7.



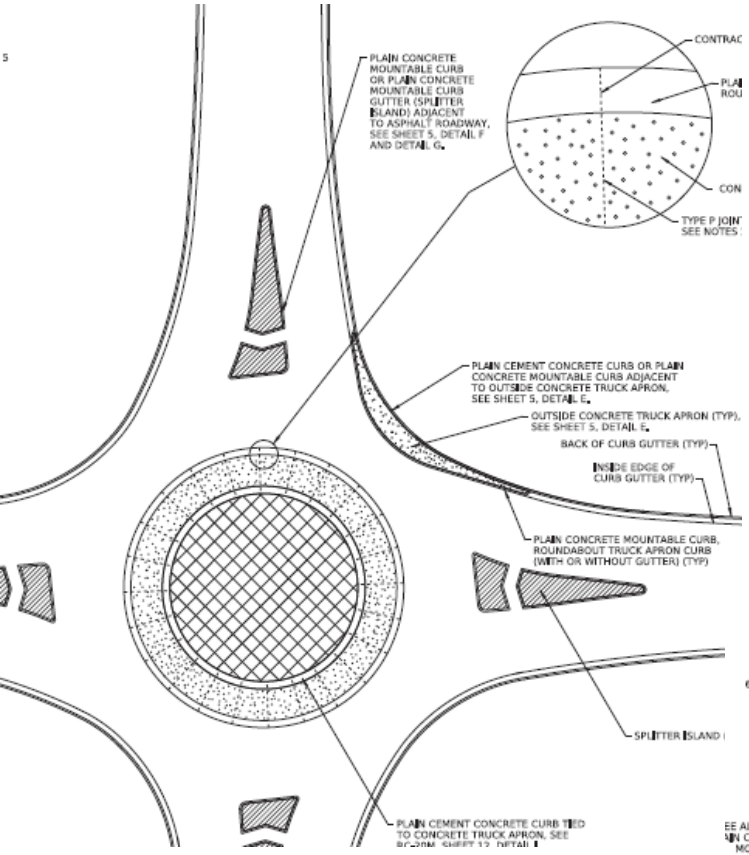
DETAIL K
PLAIN CONCRETE MOUNTABLE CURB GUTTER, TYPE A (SPLITTER ISLAND) TIED TO CONCRETE ROADWAY

(E) IF INLETS ARE PRESENT, THE GUTTER WIDTH IS TO MATCH THE INLET WIDTH.

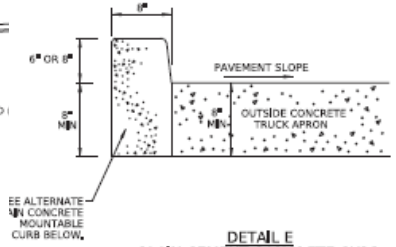
RC-20M – CONCRETE ROUNDABOUTS



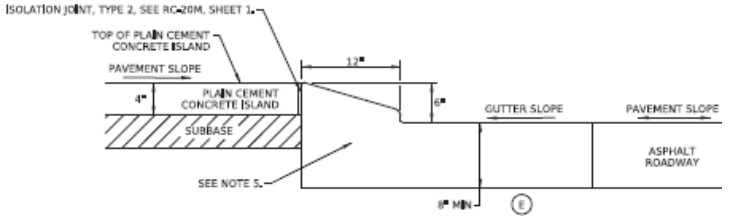
RC-64M – ASPHALT ROUNDABOUTS



- RC-64M: Curb and Gutter details for asphalt roundabouts.
- RC-64M also contains general curb and gutter details.
- RC-65M eliminated. Content moved to RC-64M.



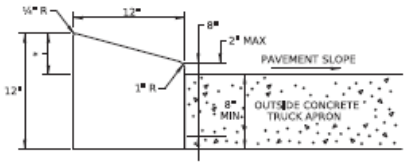
DETAIL E
PLAIN CEMENT CONCRETE CURB
ADJACENT TO OUTSIDE
CONCRETE TRUCK APRON



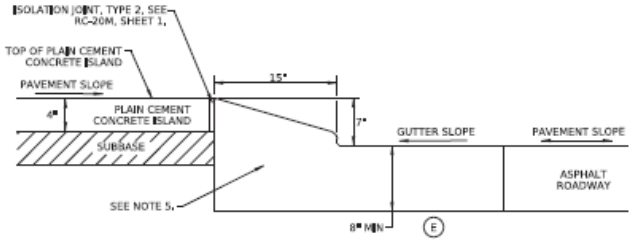
DETAIL F
PLAIN CONCRETE MOUNTABLE CURB GUTTER, TYPE A
(SPLITTER ISLAND)
ADJACENT TO ASPHALT ROADWAY

(E) IF INLETS ARE PRESENT, THE GUTTER WIDTH IS TO MATCH THE INLET WIDTH.

- Mountable curbs okay outside, if no peds



ALTERNATE PLAIN CONCRETE
MOUNTABLE CURB, TYPE A
* 4" TO 6" HEIGHT

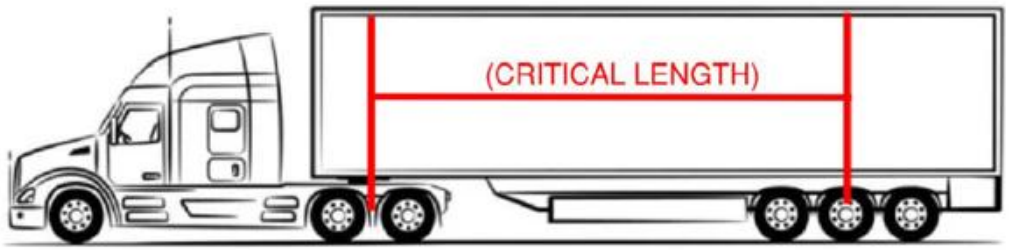


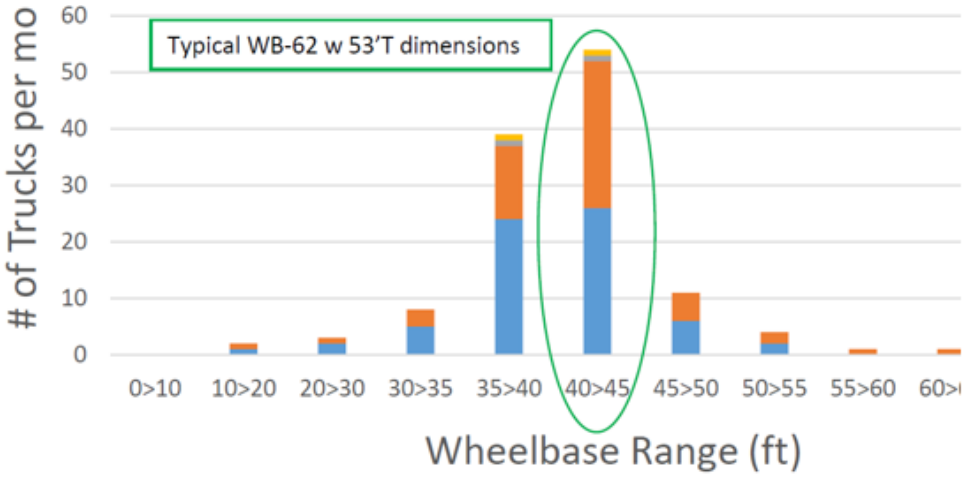
DM-2 SECTION 6.12 UPDATE

Oversize (OS) permit vehicles

- Methodology to determine *Control Vehicle*
- Review APRAS data (per DM-1C, Figure 3.8 Submission checklist)
  - Review wheelbase for KPRA

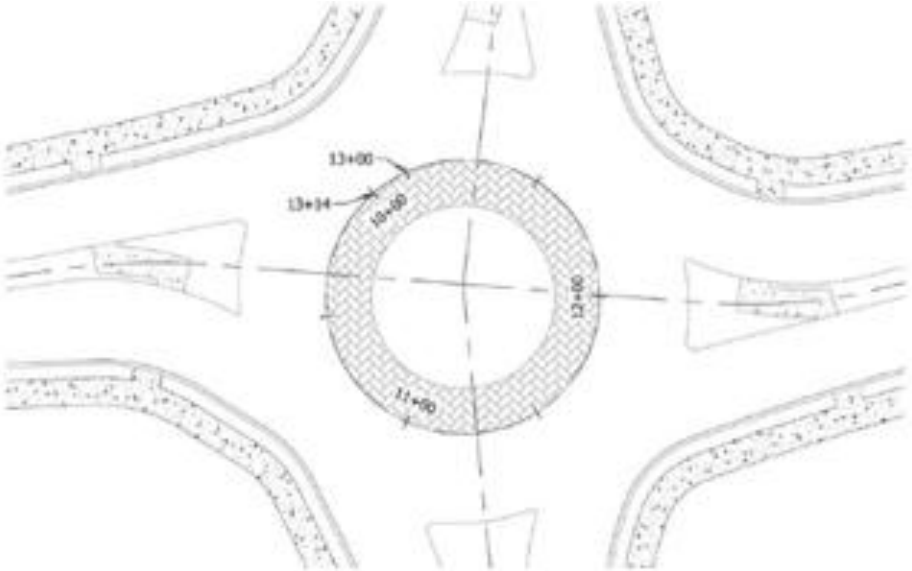
- Perform turning template for Control Vehicle early in design
- Determine max. width and length (L x W) of OS vehicles
  - Will need input into APRAS after the project is built.

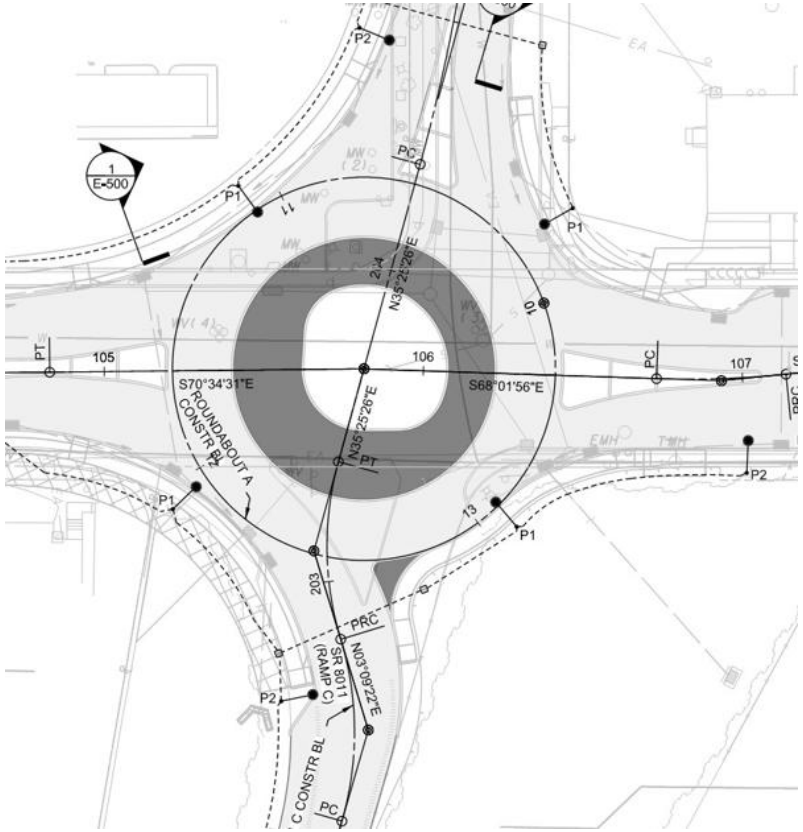




DM-2: BASELINES

- Generally, survey and construction baselines should:
  - Intersect at the center of the roundabout
  - Run through the splitter islands
- Secondary baseline around the circulatory roadway





DM-2: MISC. ANTICIPATED UPDATES

- Curb offset: 1-2 ft desirable with curb-gutter, or line striping
- Maintenance: Evaluate if future traffic control may require closing part of the circulatory roadway, and if a truck can navigate in a counter flow direction with traffic patterns such as PATA 131.
- Constructability: 16 ft (min.) curb-to-curb lane width for construction of curbing. For constrained sites, 15 ft may be adequate.

DM-2, CHAPTERS 13 & 14

Exhibit 14.9.6 Bicyclists at Roundabouts

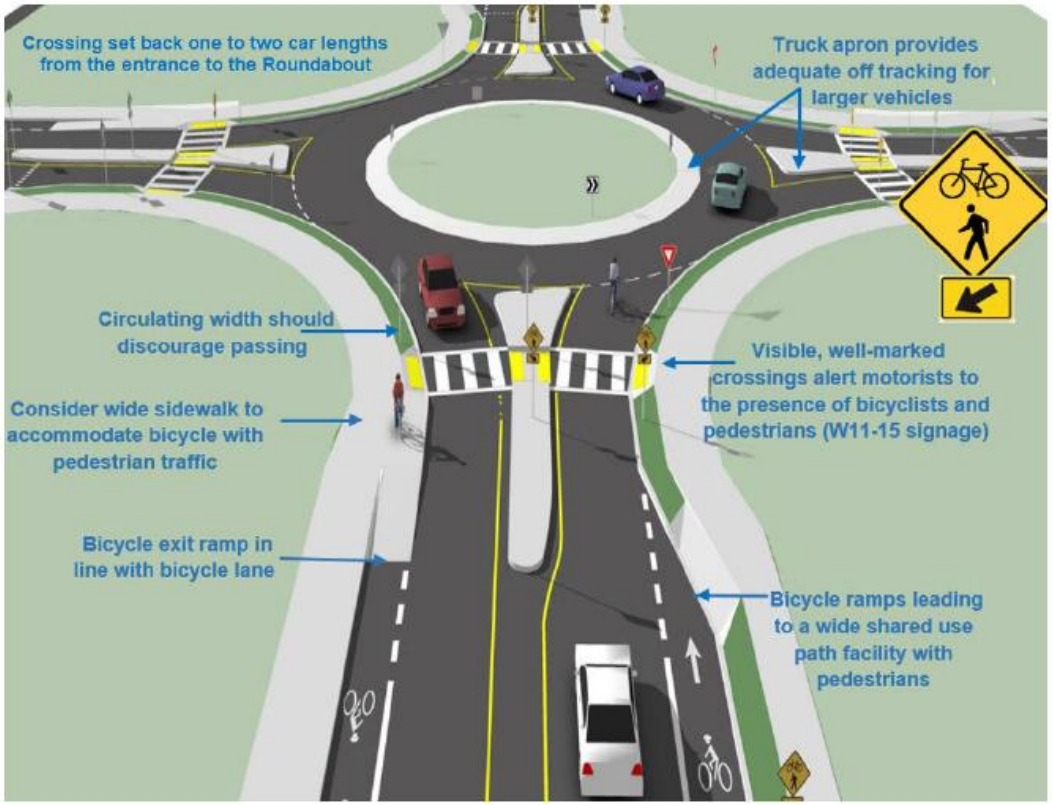


Exhibit 13.5.19 Roundabout in Swarthmore, PA

Roundabout Guidance

- According to PROWAG, the pedestrian circulation path must be separated from the curb by 2 ft minimum landscaping or non-prepared surface; if the sidewalk is flush with the curb a continuous detectable vertical edge treatment must be provided. The bottom edge of the vertical edge treatment shall be maximum 15 in above the pedestrian circulation path.
- If provided, ADA-compliant pedestrian crosswalks and curb ramps should be at least 20 ft from any roundabout entrance or exit.
- Pedestrian crossings at roundabouts can be paired with RRFBs in single lane roundabouts (see Section 13.5.2.b) to improve vehicle yielding compliance.
- According to PROWAG, at multi-lane roundabouts, any crosswalk crossing multiple lanes is required to have one or more of: a pedestrian-actuated RRFB, a traffic signal with pedestrian signal head, a raised crossing, or a pedestrian hybrid beacon. However, pedestrian hybrid beacons are not permitted traffic control devices in PA.

DM-2, Change 9, Dec. 2025

- Chapter 13, Pedestrians – adopts PROWAG Final Rule
- Chapter 14, Bicycles - adopts 2024 AASHTO Bike Guide

BIKE RAMPS (AASHTO BIKE GUIDE)

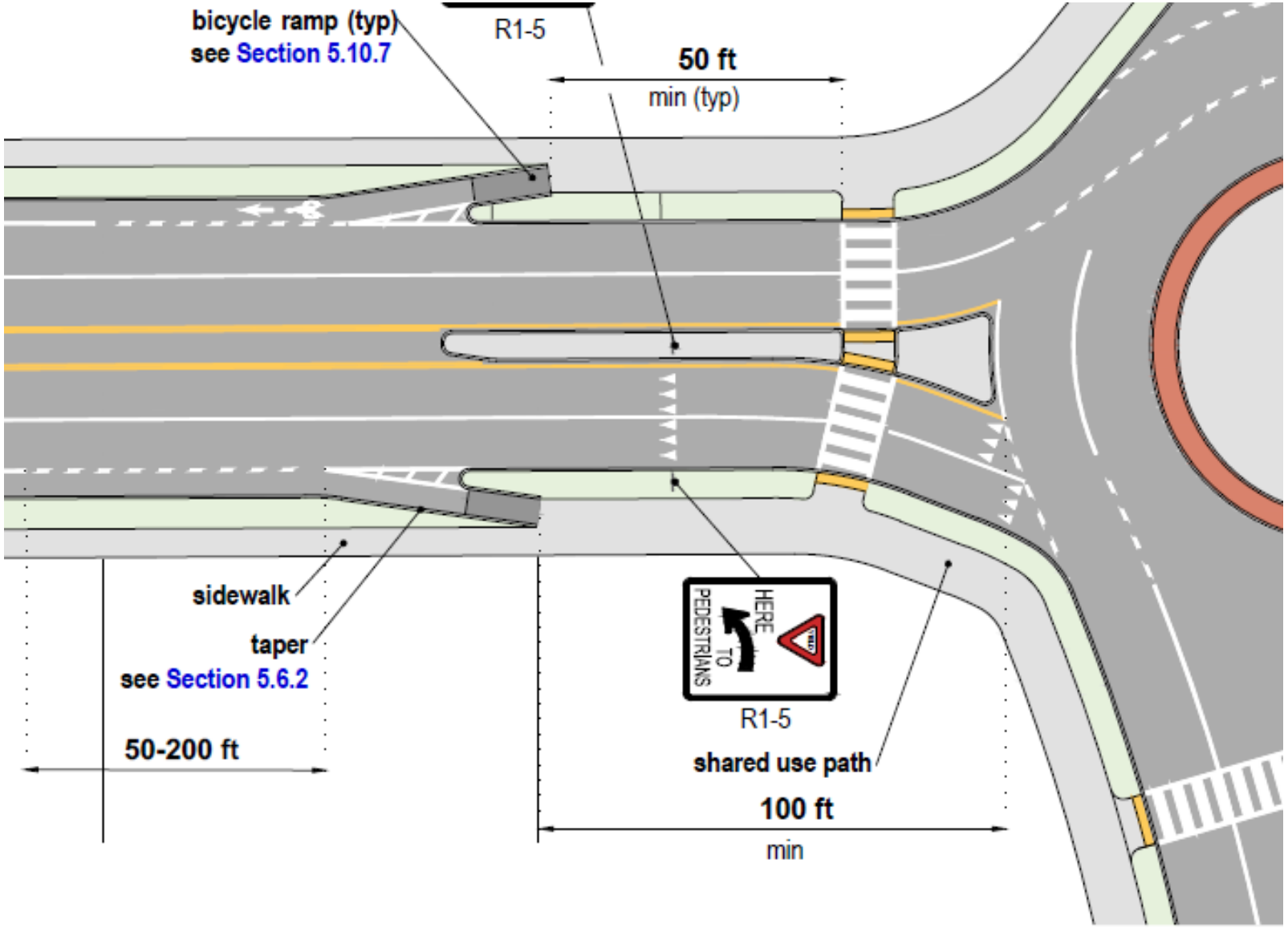
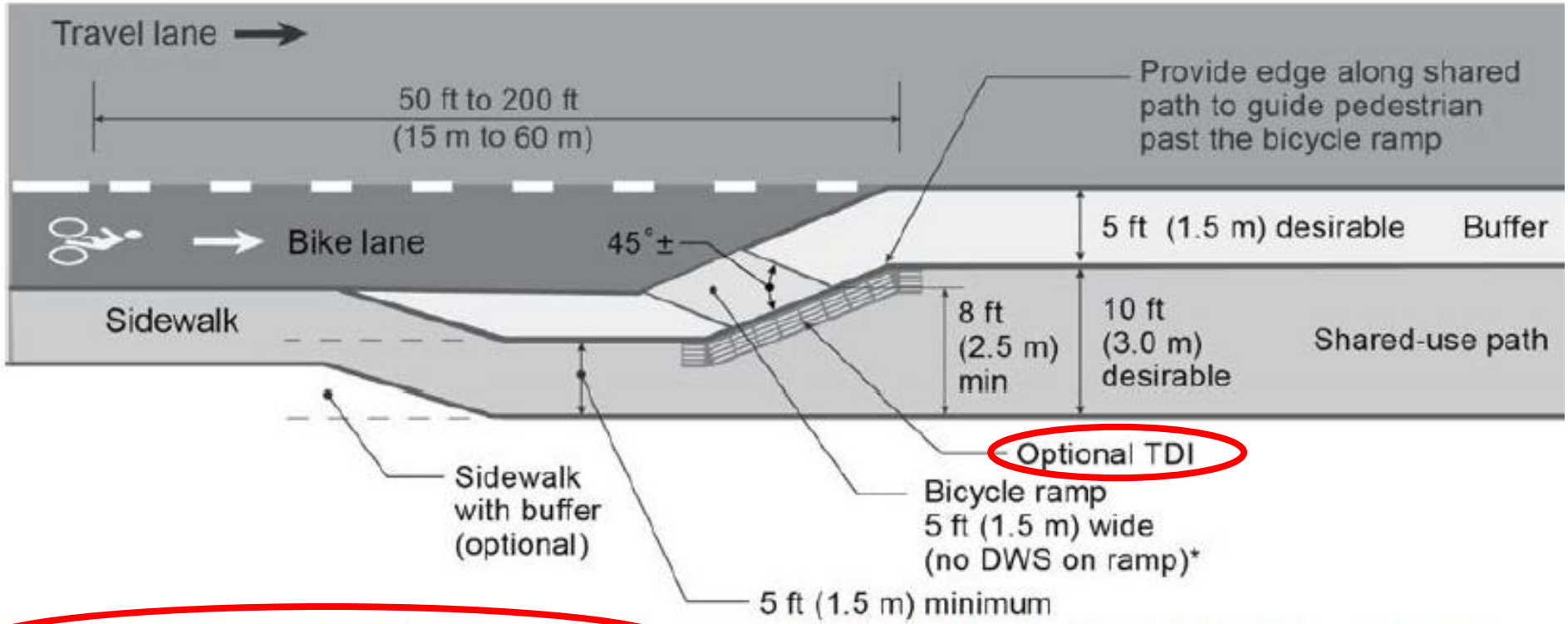


Figure 11-16: Typical Layout of Bike Lane Transitions to Shared Use Path at Multilane Roundabout with Bike Ramps

BIKE RAMPS NCHRP 1043, ROUNDABOUT GUIDE

Exhibit 10.25. Transition from on-street bike lane to shared-use path.



*DWSs are no longer recommended on bicycle ramps. If desired, optional TDIs can be used to delineate the desired path for pedestrians near the ramp. See FHWA (72).

*Note: DM-2, Ch 14 requires Central Office approval on a case-by-case basis

TDI*

TWD*

FREE TRAINING

- Currently available modules:
  - Intro and history (Module 1 - Introduction to Roundabouts - 78TECH401300)
  - Safety (Module 2 – Roundabouts Safety Performance Analysis - 78TECH401305)

https://www.trainingcalendar.penndot.pa.gov/ecms/ecms_training_calendar.nsf

- In-progress:
  - Conceptual design composition (size, position, shape, approach alignment)
  - Performance check: fastest path
  - Performance check: truck turns
  - Performance check: sight distances

- Possible future modules:
  - Operations
  - Design process
  - Single Lane geometry
  - Multi-lane geometry
  - Right turn by-pass lanes
  - Bike/Ped
  - Design details (curbs, truck aprons, islands, signs, pavement markings, etc.)

EARLY CIRCULAR INTERSECTIONS

QUESTIONS?

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