

LOCAL TECHNICAL ASSISTANCE PROGRAM

PENNDOT MID BLOCK AND TRAIL CROSSING POLICY

September 2025



Pennsylvania
Department of Transportation

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PRESENTER(S)

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Pennsylvania Local Technical Assistance Program

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Training

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- Road Shows

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- Website: www.gis.penndot.pa.gov/ltap

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are FREE.





The screenshot displays the Pennsylvania Department of Transportation's Local Technical Assistance Program (LTAP) website. The header features the program's logo and a navigation bar with links to Home, LTAP Tools, My Tools, Administrative Tools, Reports, Help, and Sign out. The main content area is organized into six green boxes: 'My Training Schedule' (upcoming and completed training), 'My Technical Assistance Requests' (current and past requests), 'My User Data and Roads Scholar Status' (update user info, view status, print certificates), 'Register for Training' (classes, drop-ins, webinars, workshops), 'Request Technical Assistance' (technical expert evaluation), and 'Resources and Technical Information' (safety and maintenance resources). A banner below these boxes states 'All services are free to municipalities'. The footer includes a 'LTAP Programs' section with links to About LTAP, Roads Scholar Program, LTAP Resources, Training Descriptions, and Why do I need an Account? A yellow arrow points to the 'About LTAP' link. On the right side, there is a photo of road construction, a 'Build a Better Mousetrap' logo, and a section for 'Upcoming Training' featuring a virtual session on 'TRAFFIC SIGNALS BASICS' on January 30th.

HANDOUTS ONLINE

- <https://gis.penndot.pa.gov/ltap/> - Training Descriptions
- Click on the course description and scroll to the bottom to download handouts.

Handout Upload: No file chosen

Course Handouts :

#	File Name	Date	Download	Delete
1	00.ClassWorkbook_2021-01-13.pdf	1/13/2021 10:23:00 AM		
2	01. Handout_ 1.pdf	1/13/2021 10:23:00 AM		

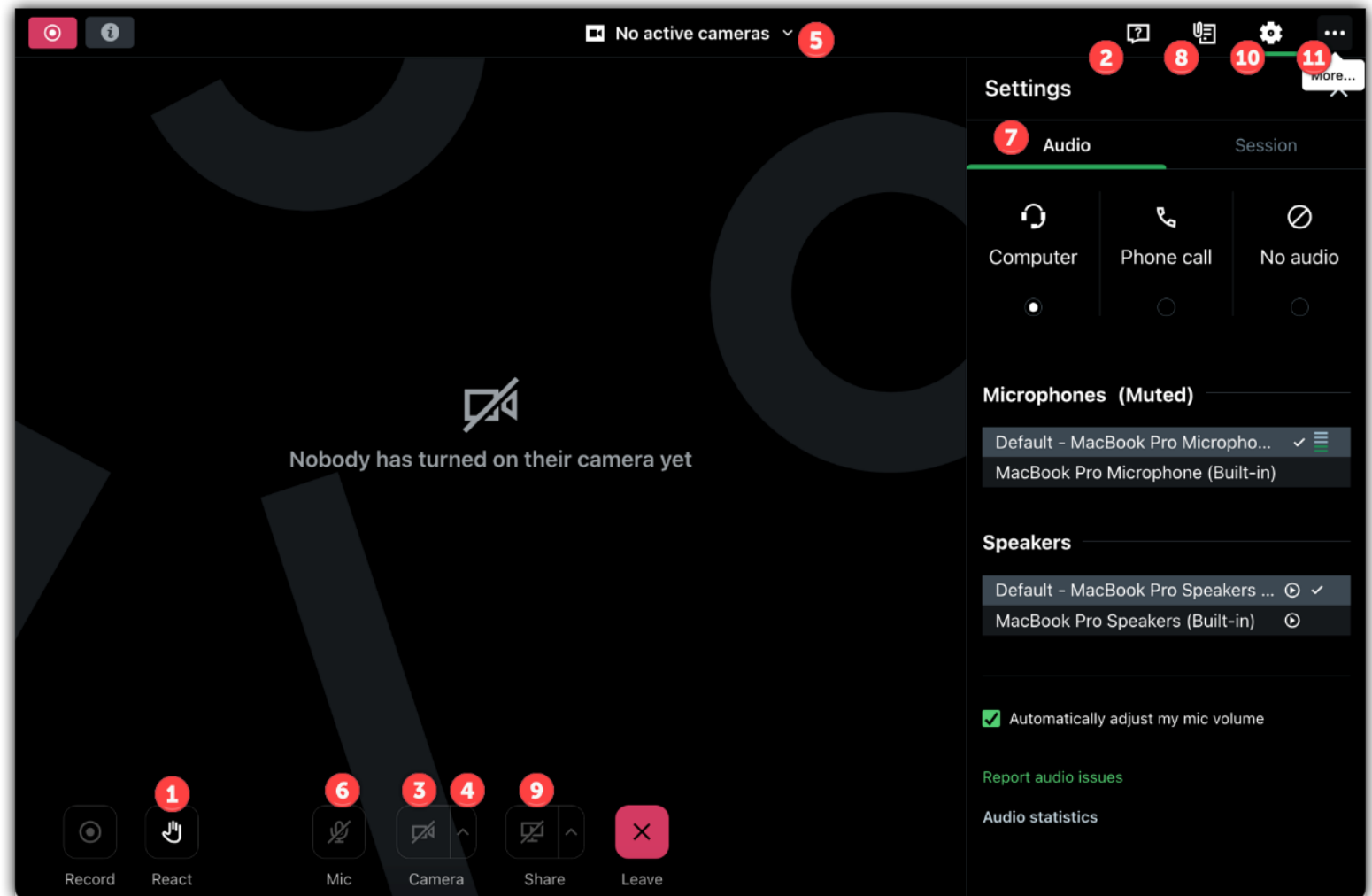
VIRTUAL IN-SESSION ATTENDEE GUIDE

Interact with the presenter/organizer:

(1) Reaction Emojis

(2) Use the Question/Chat icon to type your question/comment and send it to the staff/presenter.

(8) If materials have been shared such as handouts or PDF slides, you can access them through the Materials icon.



AGENDA

- **Understanding Different Crosswalks**
- **Pedestrian Safety**
- **Midblock Crosswalk and Trail Crossing Policy Overview**
- **Study Procedure**
- **Example Study**

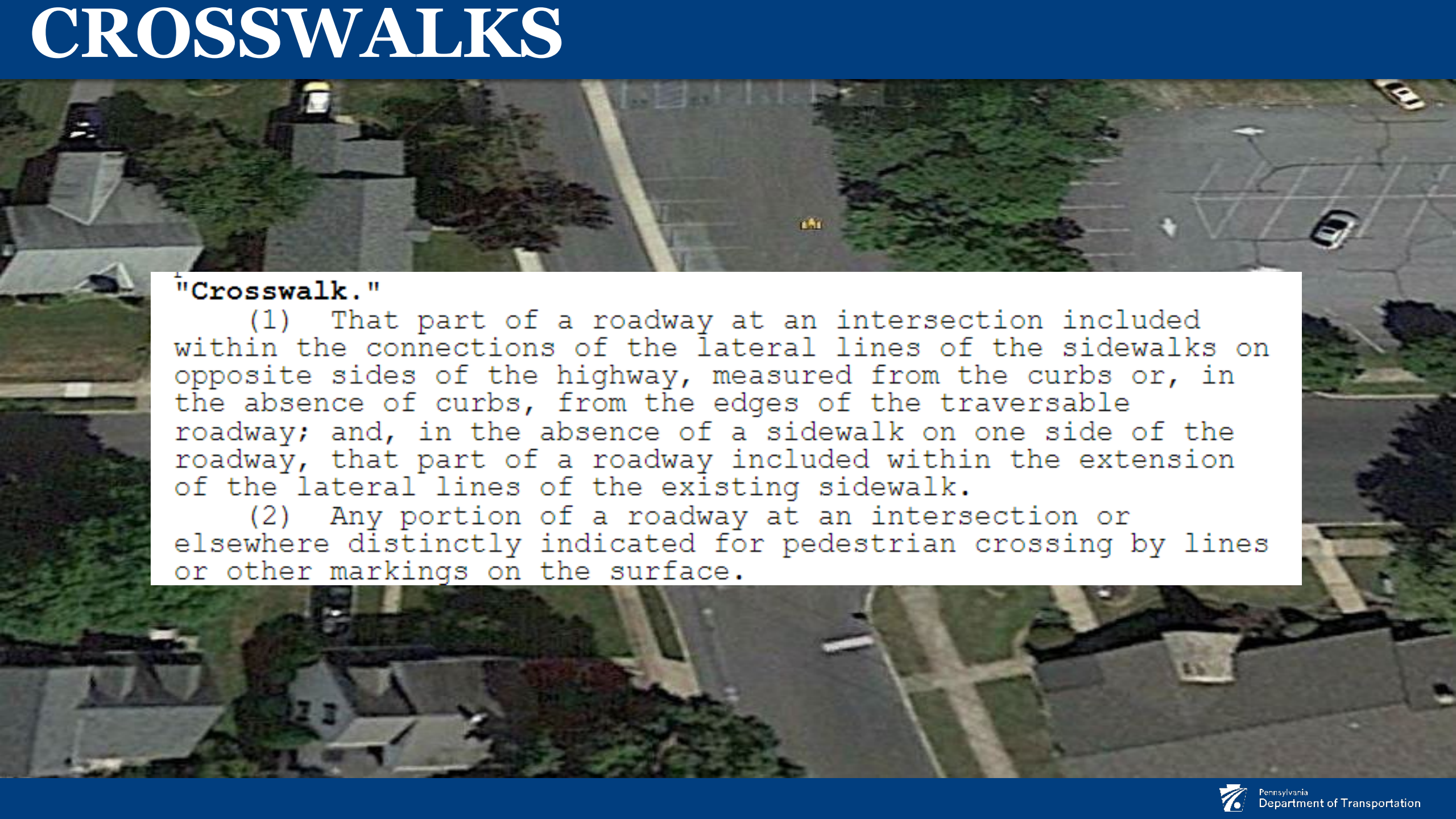
CROSSWALKS



How many crosswalks are at this intersection?



CROSSWALKS

An aerial photograph of a residential street intersection. A crosswalk is visible, marked with white lines across the road. The surrounding area includes houses, trees, and a parking lot with several cars.

"Crosswalk."

(1) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway, measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway; and, in the absence of a sidewalk on one side of the roadway, that part of a roadway included within the extension of the lateral lines of the existing sidewalk.

(2) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface.

CROSSWALKS

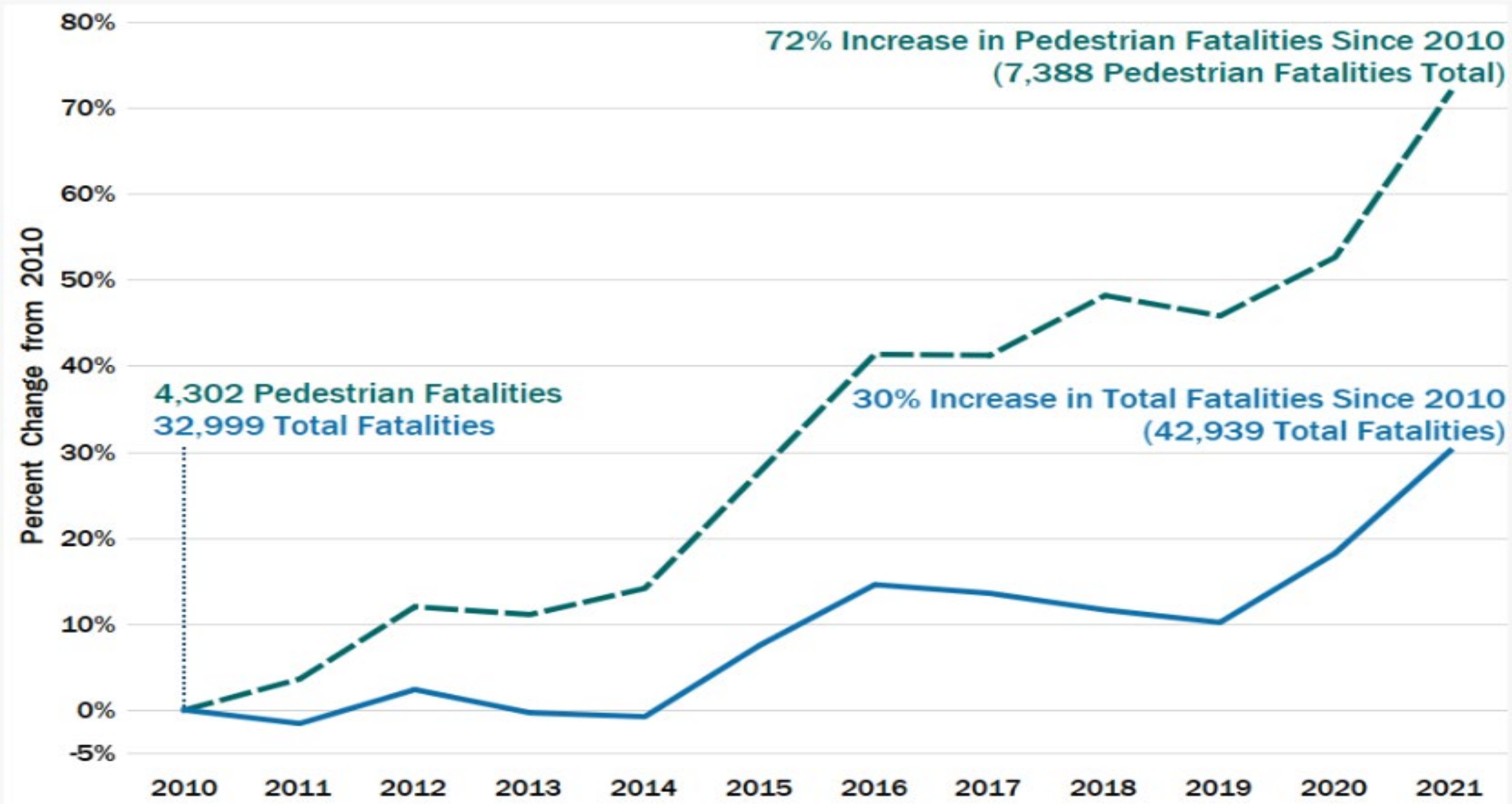


Mid-block crosswalks must be defined by crosswalk lines

CROSSWALKS



Trail crossings are considered intersections



Data Source: FARS 2010-2021

PEDESTRIAN SAFETY

Pedestrian safety is a **complex issue**, and many contributing factors lead to - or prevent - a severe crash.








Data Source: FARS 2021 | Credit: derived from GHSA




PEDESTRIAN SAFETY

PA Statistics

Total Crashes

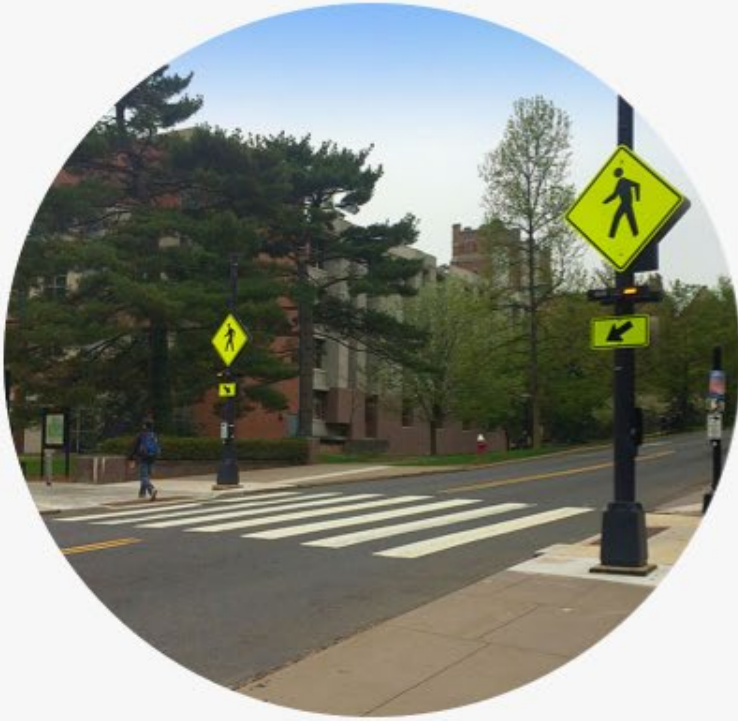
2020		2,831
2021		3,100
2022		3,211
2023		3,199
2024		3,035

Fatalities

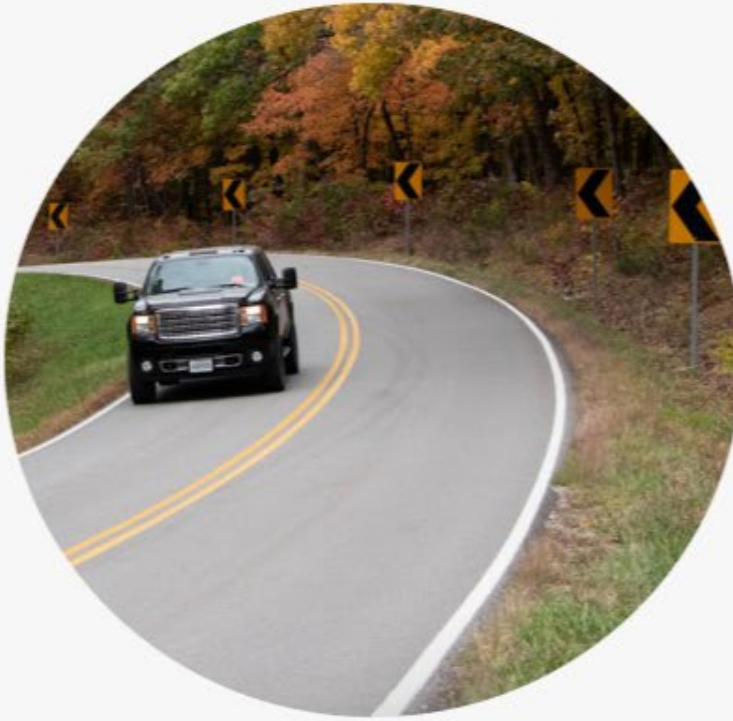
2020		146
2021		182
2022		184
2023		186
2024		174

PEDESTRIAN SAFETY

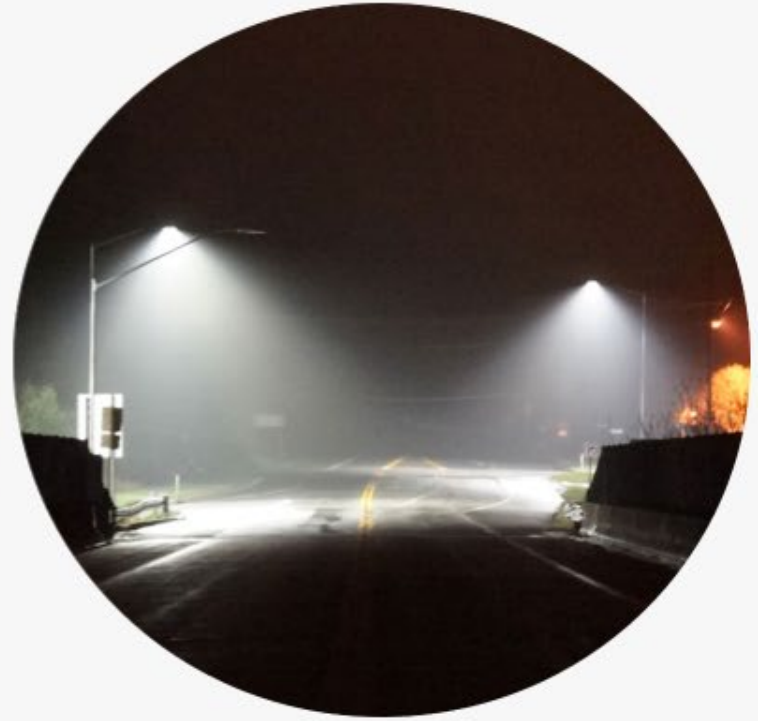
Three important areas for pedestrian safety:



Crossings



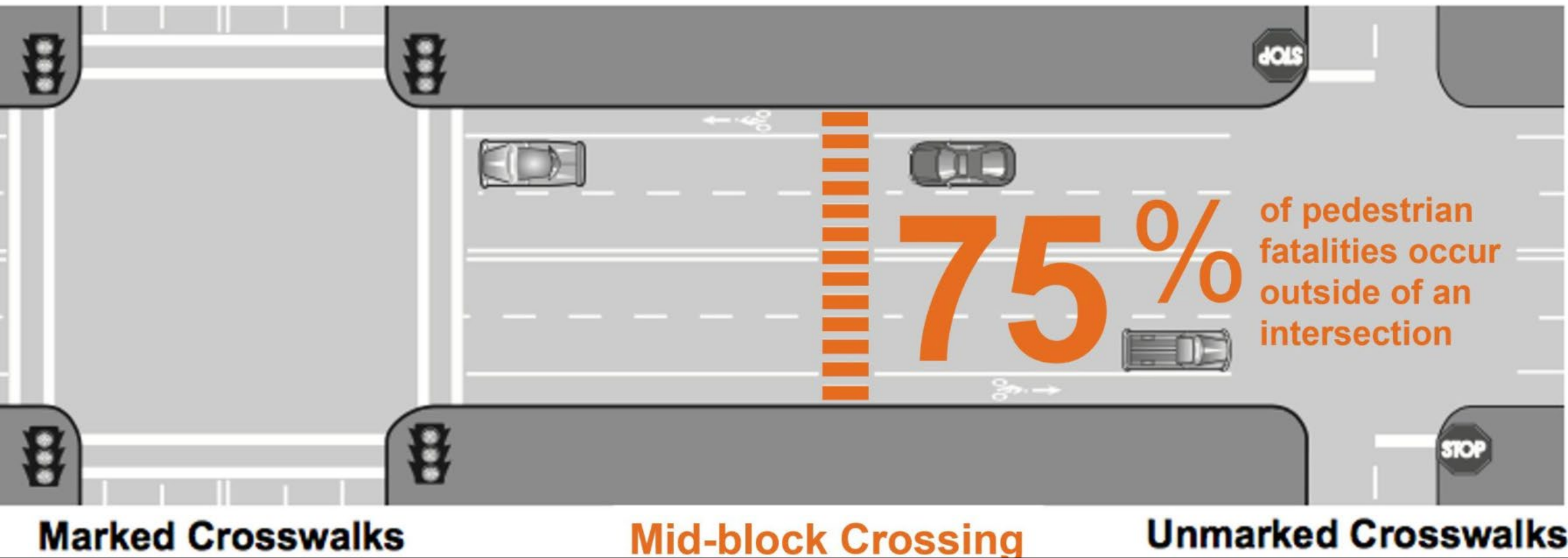
Speed



Visibility

PEDESTRIAN SAFETY

Crossings



POLICY OVERVIEW

Policy provides guidance for midblock and trail crossings on

- Where to locate crossings
- When it is necessary to install safety countermeasures at crossings
- How to select the appropriate safety countermeasures at crossings
- General design guidance and best practices for crossings

POLICY OVERVIEW

Policy applies to all public roads in the Commonwealth

- Local Authorities shall be consistent with this policy for midblock crosswalks and trail crossings on local roads
- PennDOT approval is required prior to the installation of any midblock crosswalk on a State highway, a local road with state or federal funding, or a federal aid roadway
- Installation and maintenance of midblock crossings and trail crossings is the responsibility of the local authorities

POLICY OVERVIEW

How to access the policy:

- PennDOT Traffic Signal Portal
 - Publications
 - Traffic Engineering Manual, Publication 46

10	Design Manual 1 : Transportation Program Development and Project Delivery Process	
13	Design Manual 2 : Contextual Roadway Design	
13M	Design Manual 2 : Highway Design	
14M	Design Manual Part 3 : Plans Presentation (Dual Unit)	
35	Qualified Products List for Construction (Bulletin 15)	
46	Traffic Engineering Manual	<ul style="list-style-type: none">• SOL 494-25-06, Section(s) Revised: 4.6,4.12• SOL 494-25-05, Section(s) Revised: Chapter 7; 11.1, 11.9• SOL 494-25-01, Section(s) Revised: 12.1, 12.2• SOL 494-22-07, Section(s) Revised: Chapter 12• SOL 494-21-06, Section(s) Revised: Chapter 6, Chapter 10, Chapter 12• SOL 494-21-03, Section(s) Revised: Chapters 1,4

STUDY PROCEDURE

1

Conduct a Traffic Study to Determine if Candidate Crossing Location is Appropriate for a Midblock Crosswalk or Trail Crossing



2

Determine Which Safety Countermeasures are Appropriate for the Crossing Location



3

Coordinate with PennDOT on Approval, Design, and Installation



Location Determined to be Appropriate for Midblock/Trail Crossings

STUDY PROCEDURE

Is a midblock crosswalk or trail crossing appropriate in the proposed location?

Key Requirements to be Met:

- Sufficient Stopping Sight Distance
- Distance to Nearest Marked Crosswalk
- Pedestrian Volumes

STUDY PROCEDURE


Key Requirements to be Met:

- Location should be at least 300 feet from the nearest marked crosswalk on the same roadway.
- Pedestrian volumes should meet the following thresholds:
 - 20 pedestrian crossings per peak hour
 - 15 elderly, disabled and/or children crossings per peak hour



STUDY PROCEDURE

- Study required for all locations
- Must use TE-113 form
- Suggested to use qualified engineer
- Study may be completed by appropriate municipal staff
- LTAP can assist

TE-113 (4-25)		MIDBLOCK CROSSWALK AND TRAIL CROSSING ENGINEERING AND TRAFFIC STUDY	
 Pennsylvania Department of Transportation <small>www.pa.gov/penndot</small>		PLEASE TYPE OR PRINT ALL INFORMATION IN BLUE OR BLACK INK	
A - LOCATION INFORMATION			
COUNTY		MUNICIPALITY	
STREET NAME		TOWNSHIP ROAD #	
SR#		SEGMENT	
B - REFERENCE INFORMATION			
REFERENCE Chapter 212		SECTION(S) 212.5(b)(1)(v)(T)	



EXAMPLE STUDY

SR 1234

LTAPville, PA

EXAMPLE STUDY

- Existing marked midblock crosswalk—but no permit
- Elder care facility, with shopping center across the street
- Bus stop location
- Some existing, outdated signs

11,900 vehicles per day
25 MPH posted speed limit
2 lanes



EXAMPLE STUDY

- Sight distance exceeds the minimum requirements
 - 25 MPH, level road
 - No parking
 - 155 feet required

Speed Limit (mph)	Minimum Sight Distance for a Corresponding Grade (feet)		
	-6%	level	+6%
25	165	155	143
30	215	200	184
35	271	250	229



EXAMPLE STUDY

An aerial photograph of a city street intersection. A horizontal street runs across the middle, and a vertical street runs down the right side. Several buildings and parking lots are visible. Two yellow callout boxes with black text indicate distances: '310 feet' points to a location on the horizontal street, and '295 feet' points to a location on the vertical street. A blue callout box with white text states 'No closer than 300 feet to nearest marked crosswalk'. A large yellow box at the bottom contains the text 'Distance to nearest crosswalks'. The Google Earth logo is in the bottom right corner.

295 feet

310 feet

No closer than 300 feet to nearest marked crosswalk

Distance to nearest crosswalks

EXAMPLE STUDY

Pedestrian volumes

- 20 pedestrian crossings per peak hour
- 15 elderly, disabled and/or children crossings per peak hour

Highest count was 26 pedestrians in one hour



EXAMPLE STUDY

- AADT 11,900
- Posted speed limit 25 MPH
- Two lanes

Roadway Cross-section	Roadway AADT and Speed Limit															
	Less than 9,000 AADT				9,000 to 12,000 AADT				12,000 to 15,000 AADT				More than 15,000 AADT			
	≤ 30 MP H	35 MP H	40 MP H	≥ 45 MP H	≤ 30 MP H	35 MP H	40 MP H	≥ 45 MP H	≤ 30 MP H	35 MP H	40 MP H	≥ 45 MP H	≤ 30 MP H	35 MP H	40 MP H	≥ 45 MP H
Two Lanes (undivided)	A	A	B	C	A	A	B	C	A	A	B	C	B	B	C	C
Three lanes with raised median	A	B	B	C	A	B	B	C	B	B	B	C	B	B	B	C
Three lanes without raised median	A	B	B	C	A	B	B	C	B	B	B	C	B	C	C	C
Four lanes with raised median	B	B	B	C	B	B	C	C	B	B	C	C	C	C	C	C
Four lanes without raised median	B	B	C	C	B	B	C	C	C	C	C	D	C	C	C	D
Five or more lanes with or without raised median	C	C	D	D	C	C	D	D	D	D	D	D	D	D	D	D

A	Marked crosswalk alone w/minimum treatments is appropriate
B	Additional pedestrian safety countermeasures are recommended in addition to minimum treatments
C	Additional pedestrian safety countermeasures are required in addition to minimum treatments
D	A marked crosswalk is not recommended unless combined with full signalization



EXAMPLE STUDY

Minimum Treatments

- High visibility crosswalk markings
- Pedestrian signs with downward diagonal pointing arrow at crossing location
- Americans with Disabilities Act requirements



EXAMPLE STUDY

Roadway Cross-section	Roadway AADT and Speed Limit														
	Less than 9,000 AADT									9,000 to 12,000 AADT					
	≤30 mph			35 mph			40 mph			≤30 mph		35 mph		40 mph	
Two Lanes (undivided)	a		c			c			c					c	
	d			d	e		d	e		d		d	e	d	e
									g						g
Three lanes with raised median	a	b	c		b	c		b	c		b	c		b	c
					e			e			e			e	
	g			g			g			g		g		g	
Three lanes without median	a	b	c		b	c		b	c		b	c		b	c
	d	e		d	e		d			d	e	d	e	d	
	g			g			g			g		g		g	
Four lanes with raised median		b	c		b	c		b	c		b	c		b	c
		e	f		e	f			f		e	f			f
	g			g			g			g		g		g	
Five or more lanes (undivided)		b	c		b	c		b	c		b	c		b	c
	d	e	f	d	e	f	d		f	d	e	d	e	d	f
	g			g			g			g		g		g	i
Five or more lanes with or without raised median		b	c		b	c		b	c		b	c		b	c
	d	e	f	d	e	f	d		f	d	e	d	e	d	f
	g	h	i	g	h	i	g	h	i	g	h	g	h	g	i

Key:

a – Countermeasure is a candidate treatment

a – Countermeasure should always be considered, but not mandated or required, based upon engineering judgment

What Safety Countermeasures are Appropriate?

Raised crosswalk	a
Advance Yield Here to Pedestrians sign and yield line and Advance Warning Sign	b
Curb Extension	c
Pedestrian Refuge Island	d
Rectangular Rapid Flashing Beacon or Flashing Warning Device	e
Road Diet	f
Advance Warning Beacons	g
Grade Separated	h
Traffic Signal*	i

TRAIL CROSSING EXAMPLE STUDY



SR 0567

LTAP Township, PA

TRAIL CROSSING EXAMPLE STUDY

- Existing marked trail crossing
- Some existing signs
- Does it have the appropriate signs, markings, and safety features?

4,390 vehicles per day
40 MPH posted speed limit
2 lanes



EXAMPLE STUDY

- AADT 4,390
- Posted speed limit 40 MPH
- Two lanes

Roadway Cross-section	Roadway AADT and Speed Limit															
	Less than 9,000 AADT				9,000 to 12,000 AADT				12,000 to 15,000 AADT				More than 15,000 AADT			
	≤ 30 MP H	35 MP H	40 MP H	≥ 45 MP H	≤ 30 MP H	35 MP H	40 MP H	≥ 45 MP H	≤ 30 MP H	35 MP H	40 MP H	≥ 45 MP H	≤ 30 MP H	35 MP H	40 MP H	≥ 45 MP H
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Three lanes with raised median	A	B	B	C	A	B	B	C	B	B	B	C	B	B	B	C
Three lanes without raised median	A	B	B	C	A	B	B	C	B	B	B	C	B	C	C	C
Four lanes with raised median	B	B	B	C	B	B	C	C	B	B	C	C	C	C	C	C
Four lanes without raised median	B	B	C	C	B	B	C	C	C	C	C	D	C	C	C	D
Five or more lanes with or without raised median	C	C	D	D	C	C	D	D	D	D	D	D	D	D	D	D

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EXAMPLE STUDY

Roadway Cross-section	Roadway AADT and Speed Limit														
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	d			d	e		d	e		d		d	e	d	e
									g						g
Three lanes with raised median	a	b	c		b	c		b	c		b	c		b	c
					e			e			e			e	
	g			g			g			g		g		g	
Three lanes without median	a	b	c		b	c		b	c		b	c		b	c
	d	e		d	e		d			d	e	d	e	d	
	g			g			g			g		g		g	
Four lanes with raised median		b	c		b	c		b	c		b	c		b	c
		e	f		e	f			f		e	f			f
	g			g			g			g		g		g	
Five or more lanes (undivided)		b	c		b	c		b	c		b	c		b	c
	d	e	f	d	e	f	d		f	d	e	d	e	d	f
	g			g			g			g		g		g	i
Five or more lanes with or without raised median		b	c		b	c		b	c		b	c		b	c
	d	e	f	d	e	f	d		f	d	e	d	e	d	f
	g	h	i	g	h	i	g	h	i	g	h	g	h	g	i

Key:

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Rectangular Rapid Flashing Beacon or Flashing Warning Device	e
Road Diet	f
Advance Warning Beacons	g
Grade Separated	h
Traffic Signal*	i

EXAMPLE STUDY



Rectangular Rapid Flashing Beacons (RRFB)

RRFBs are **pedestrian-actuated conspicuity enhancements** used in combination with a pedestrian, school, or trail crossing warning sign to improve safety at uncontrolled, marked crosswalks. The device includes **two rectangular shaped yellow indications**, each with an LED-array-based light source, that **flash with high frequency** when activated.



Countermeasure Details

Safety Benefit: 47 percent reduction in pedestrian crashes. Research indicates RRFBs can result in increased motorist yielding rates.

Dimensions: Each RRFB consists of two rectangular-shaped yellow indications, each with an LED-array-based light source

Cost: \$22,250 (average)

Specific Considerations

 [Identifying Roadways for RRFBs Case Study, Arlington, VA](#)

 [Integrating RRFBs into HSIP Planning Case Study, ME](#)

Additional Resources

 [STEP Tech Sheet](#)

 [FHWA Interim Approval 21 \(IA-21\)](#)

 [Educational Video](#)

 [FAQs](#)

SUMMARY

- Applies to all mid-block and trail crossings in PA
- Follow the guidance to conduct the studies—use TE-113 for documentation
- Pedestrian safety is vital, and consistent, well marked/signed crossings are critical for safety



CONTACT LTAP

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Pennsylvania

Department of Transportation

Local Technical Assistance Program

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