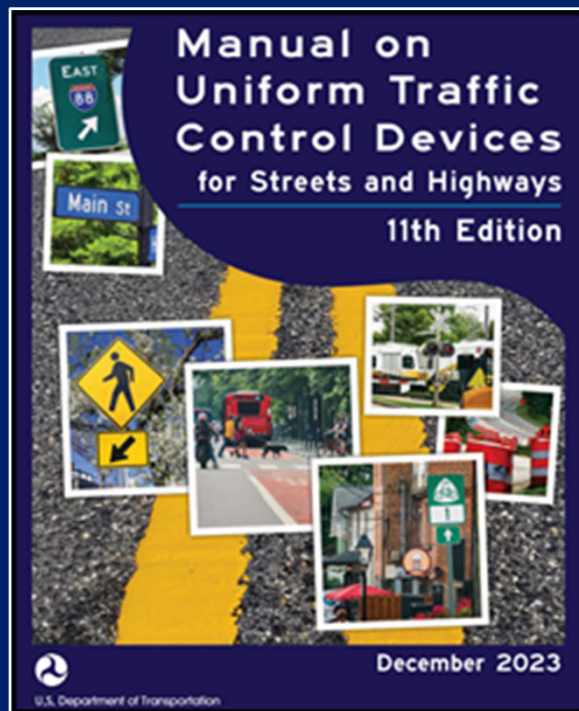


MUTCD UPDATE...

WHAT DOES THIS MEAN FOR MUNICIPALITIES?



LTAP VIRTUAL DROP-IN SESSION
APRIL 4, 2024

SESSION BEING RECORDED

This session is being recorded.

By participating in this session, you are consenting to the recording, retention, and use of this session.

Additionally, as a reminder by asking a question verbally you are also consenting to the recording, retention, and use of your statements.



INSTRUCTOR INFORMATION

Presenters:

Patrick Wright, LTAP.
pwright@pennoni.com

Jason Bewley, Senior Traffic Engineer, PA Department of Transportation, Bureau of Operations.

jbewley@pa.gov



www.gis.penndot.pa.gov/ltap

The LTAP website has course listings, newsletters, tech sheets, webinars, and drop-in announcements.

Electronic copies of the course workbook and handouts are under each training description. You may download them 24/7.

<https://gis.penndot.pa.gov/ltap/>

pennsylvania
DEPARTMENT OF TRANSPORTATION
LOCAL TECHNICAL ASSISTANCE PROGRAM

Logged in as RVESNIC

Home LTAP Tools My Tools Administrative Tools Reports Help Sign out

My Training Schedule
Upcoming training, completed training and completion certificates

My Technical Assistance Requests
Information on your current and past tech assist requests

My User Data and Roads Scholar Status
Update your user information, view Roads Scholar status, and print certificates

Register for Training
Classes, Drop-ins, Webinars and Workshops

Request Technical Assistance
Have a technical expert evaluate your transportation issue and provide potential solutions

Resources and Technical Information
Resources to assist with safety and maintenance topics

All services are free to municipalities

LTAP Programs

About LTAP Roads Scholar Program LTAP Resources Training Descriptions Why do I need an Account?

About LTAP

Build a Better Mousetrap Innovation Challenge

Upcoming Training

08:00 AM
30 JAN
TRAFFIC SIGNALS BASICS (RS2-S33-D1) VIRTUAL PA



AGENDA

Part 1: PennDOT Guidance for the Adoption of the 2023 MUTCD

Part 2: MUTCD Key Updates



PART 1: PENNDOT GUIDANCE



Part 1: PennDOT Guidance for the Adoption of the 2023 MUTCD

MILESTONES

Dec. 14, 2020:	Notice of Proposed Amendments posted
May 15, 2021:	Public comment docket closed
Dec. 19, 2023:	Final Rule published
Jan. 18, 2024:	Final Rule effective
Jan. 18, 2026:	Deadline for agency conformance
Jan. 2028, 2032...	MUTCD v12, v13 to be issued

Source: <https://mutcd.fhwa.dot.gov/>



FEDERAL CONFORMANCE

23 CFR § 655.603 *Standards*: "...Where State...Supplements are required, they shall be in substantial conformance with the national MUTCD. Substantial conformance means that the...**Supplement shall conform as a minimum to the Standard statements** included in the national MUTCD."

MUTCD v11 Chapter 1.C.01 Definitions: "Standard—a statement of **required, mandatory, or specifically prohibitive practice** regarding a traffic control device. In limited, location-specific cases, the results of a documented engineering study (see Section 1D.03) might indicate a deviation from one or more requirements of a Standard provision to be appropriate. All Standard statements are labeled, and the text appears in bold type. The verb "shall" is typically used. The verbs "should" and "may" are not used in Standard statements. Standard statements are sometimes modified by Option statements.



PA ADOPTION

67 Pa Code § 212.2 Adoption of Federal standards

(a) *General provisions.* "...Department hereby adopts the MUTCD, as published by the Federal Highway Administration. The MUTCD is adopted in its totality except where this chapter clearly indicates that it is not being adopted, or that additional warrants or criteria are being provided."

(b) *Modification of Federal statutes, regulations or provisions.* "...if the MUTCD is amended or modified by the Federal Highway Administration, the amendment will take effect on the effective date specified by the Federal Highway Administration unless the Department publishes a notice in the *Pennsylvania Bulletin* stating that the amendment or modification will not apply."

NOTE: [PA Bulletin notice was posted Jan. 6, 2024 \(Click for link\)](#)



MUNICIPAL APPLICABILITY

67 PA Code § 212.4 *Application*

(a) **General.** This chapter applies to the approval, location, installation, revision, operation, maintenance and removal of all traffic signs, signals, markings and other traffic-control devices on **all streets and highways in this Commonwealth.**

67 PA Code § 212.5 *Installation and maintenance responsibilities*

- (a) *Authority to erect traffic-control devices*
- (b) *Traffic-control devices on State-designated highways*
- (c) ***Traffic-control devices on local highways***



ACTION PLAN

Steering Committee

- HSTO and PA Turnpike managers + DTE delegate

Nine (9) Technical Work Groups – per MUTCD Chapter

- HSTO managers + the following as appropriate:
 - PA Turnpike staff
 - Subject matter experts; e.g. Bike/Ped Coordinator
 - LTAP
 - Major City Engineers



STEERING COMMITTEE ROLES

Ensure compliance with federal requirements

Assign subject matter experts to champion policy changes

Provide technical assistance to the subject matter experts

Review and track changes to pubs, standards, and forms



PART 2: KEY UPDATES

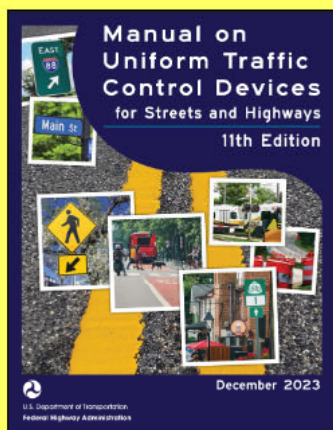


Part 2: MUTCD Key Updates

PART 2: KEY UPDATES

11th Edition of the MUTCD, December 2023

Current MUTCD Edition



The PDF of the 11th Edition of the MUTCD, dated December 2023, is the **current edition** of the official FHWA publication.

The **current edition of the MUTCD** is the **11th Edition**, dated December 2023. The **official version** of the 11th Edition of the MUTCD is the PDF version.

Changes from the 2009 Edition

To assist agencies in understanding the new provisions, supplementary documents detailing new content of the 11th Edition of the MUTCD (December 2023), and how the new edition differs from its predecessor, the 2009 Edition with Revisions 1, 2, & 3 incorporated (August 2022), are available [in the Rulemaking Docket](#) and linked below.

- [2009 MUTCD Text Redline with 11th Edition Changes](#)
- [MUTCD 11th Edition Supplemental Summary of Dispositions for Final Rule Changes](#)

Viewing the MUTCD

The 11th Edition of the MUTCD is available **only in PDF format** on this Web site. PDF formatted parts and chapters are accessible to individuals with disabilities, per [Section 508 of the Rehabilitation Act](#). Starting with the 11th Edition of the MUTCD, FHWA no

longer provides the MUTCD in a companion HTML format.

CHANGES BETWEEN 2009 & 2023

Volume: Increased from 864 to 1161 pages

Chapters: General

Signs

Markings

Traffic Signals

~~Low Volume Roads~~ → Integrated elsewhere in MUTCD

Automated Vehicles ← New Chapter

Temporary Traffic Control

School Areas

RR Light Rail & Grade

Bicycle Facilities



PART 2: KEY UPDATES

Key Updates:

- Compliance Dates
- Traffic Signs
 - Stop Signs
 - Speed Limits
 - Curve Warning Signs
- Pavement Markings



PART 2: KEY UPDATES

Table 1B-1. Target Compliance Dates Established by the FHWA

MUTCD Section(s)	Subject Area	Specific Provision	Compliance Date
2B.64	Weight Limit Signs	Paragraph 14 - requirement for additional Weight Limit sign with the advisory distance or directional legend in advance of applicable section of highway or structure	5 years from the effective date of this edition of the MUTCD
2C.25	Low Clearance Signs (W12-2)	Paragraph 1 - Required posting of the Low Clearance Advance (W12-2) sign in advance of the structure	5 years from the effective date of this edition of the MUTCD
2C.25	Low Clearance Signs (W12-2a, W12-2b)	Paragraph 8 - Recommended posting of Low Clearance Overhead (W12-2a or 12-2b) signs on an arch or other structure under which the clearance varies greatly	5 years from the effective date of this edition of the MUTCD



W12-2



W12-2b

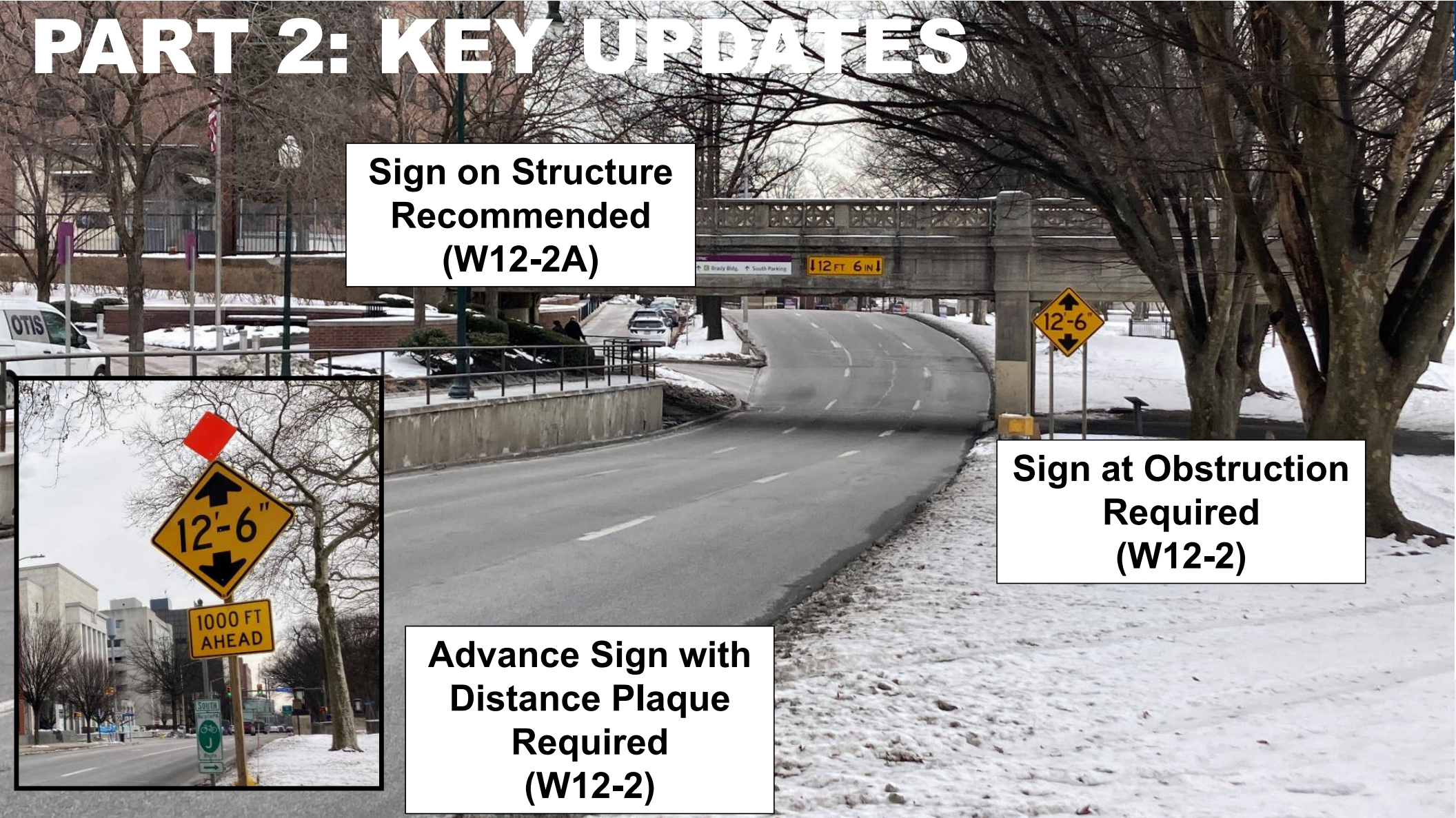


PART 2: KEY UPDATES

**Sign on Structure
Recommended
(W12-2A)**

**Sign at Obstruction
Required
(W12-2)**

**Advance Sign with
Distance Plaque
Required
(W12-2)**



GENERAL COMPLIANCE

A non-compliant traffic control device that is being **replaced or refurbished** because it is damaged, missing, or no longer serviceable (see definition in MUTCD Section 1C.02) for any reason shall be replaced with a compliant device, except as provided for in Paragraph 13 of this Section.

Option:

A non-compliant traffic control device **may be replaced in kind** when engineering judgment indicates it is more appropriate because:

- One compliant device in the midst of a series of adjacent non-compliant devices would be confusing to road users, and/or
- The schedule for replacement of the whole series of non-compliant devices will result in achieving timely compliance with the MUTCD.

Source: MUTCD v11 Chapter 1.B.03



PART 2: KEY UPDATES

Stop Signs (Section 2B.04-18)

- Reorganized—but provisions are generally the same
- Warrants and placement are generally the same



PART 2: KEY UPDATES

Speed Limits (Section 2B.21)

- New provisions apply to non-statutory speed limits only
- Emphasizes importance of the roadway context, type, and function
- Added a broad range of factors to consider
- Use of 85th percentile speed is **not required**



PART 2: KEY UPDATES

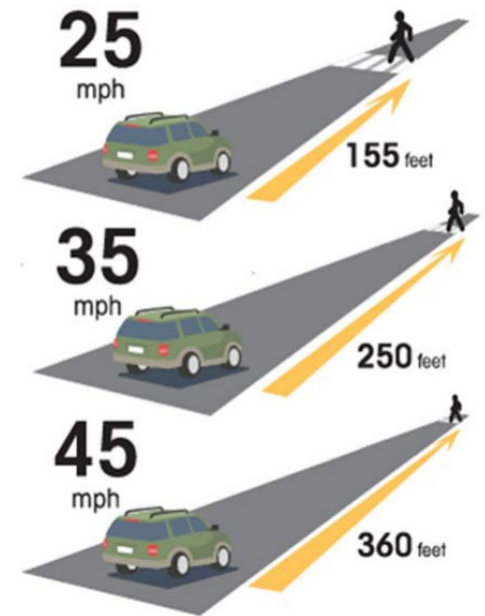
Warning Signs (Section 2C.04)

- Increases distance for advance placement of warning signs for a stop condition

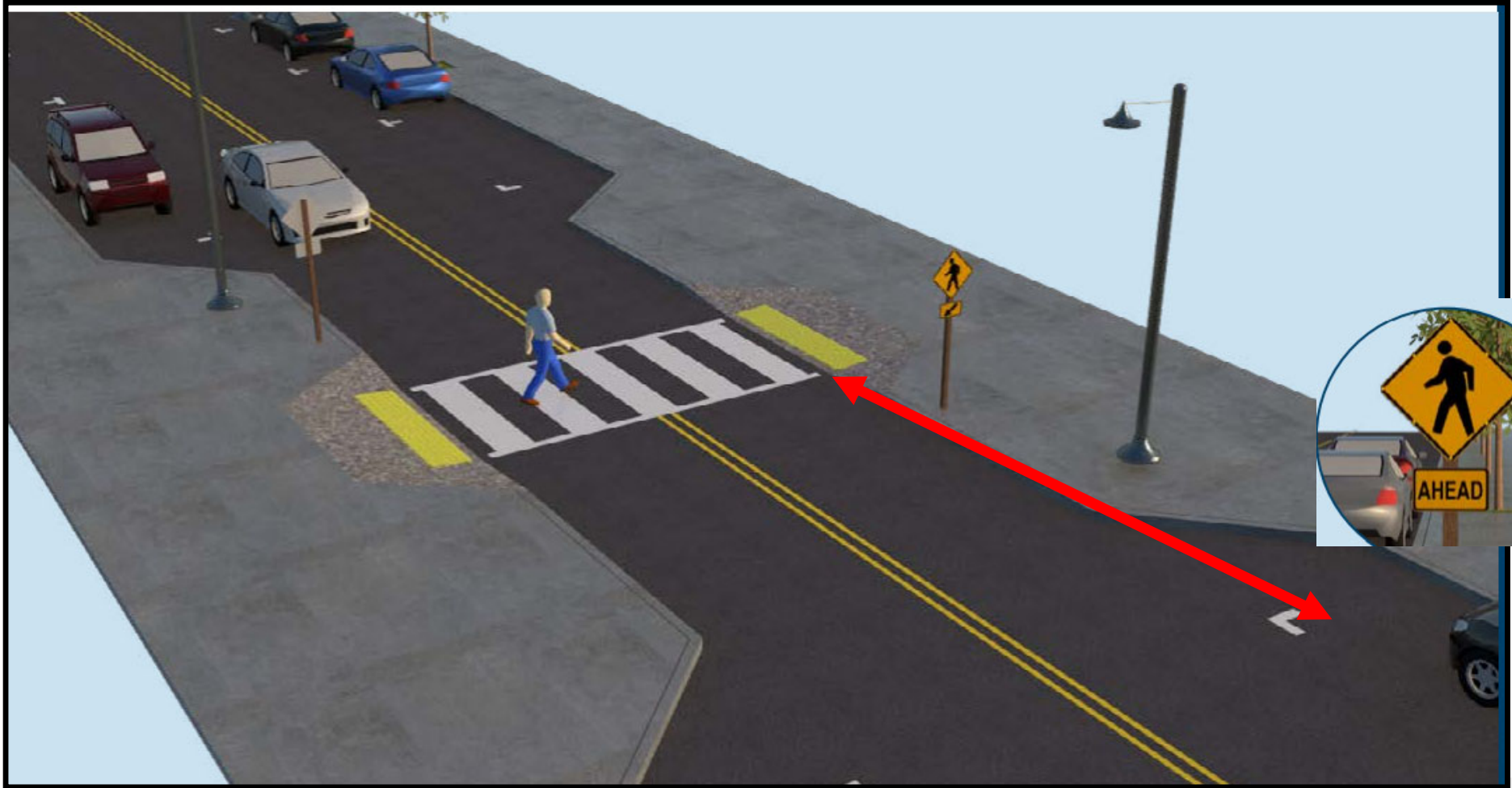
Table 2C-3. Guidelines for Advance Placement of Warning Signs

Posted or 85th-Percentile Speed	Advance Placement Distance ¹									
	Condition A: Speed reduction and lane changing in heavy traffic ²	Condition B: Deceleration to the listed advisory speed (mph) for the condition								
		0 ³	10 ⁴	20 ⁴	30 ⁴	40 ⁴	50 ⁴	60 ⁴	70 ⁴	80 ⁴
20 mph	225 ft	115 ft	N/A ⁵	—	—	—	—	—	—	—
25 mph	325 ft	155 ft	N/A ⁵	N/A ⁵	—	—	—	—	—	—
30 mph	460 ft	200 ft	N/A ⁵	N/A ⁵	—	—	—	—	—	—
35 mph	565 ft	250 ft	N/A ⁵	N/A ⁵	N/A ⁵	—	—	—	—	—
40 mph	670 ft	305 ft	100 ft ⁶	100 ft ⁶	N/A ⁵	—	—	—	—	—
45 mph	775 ft	360 ft	125 ft	100 ft ⁶	100 ft ⁶	N/A ⁵	—	—	—	—
50 mph	885 ft	425 ft	200 ft	175 ft	125 ft	100 ft ⁶	—	—	—	—
55 mph	990 ft	495 ft	275 ft	225 ft	200 ft	125 ft	N/A ⁵	—	—	—
60 mph	1,100 ft	570 ft	350 ft	325 ft	275 ft	200 ft	100 ft ⁶	—	—	—
65 mph	1,200 ft	645 ft	450 ft	400 ft	350 ft	275 ft	200 ft	100 ft ⁶	—	—
70 mph	1,250 ft	730 ft	525 ft	500 ft	450 ft	375 ft	275 ft	150 ft	—	—
75 mph	1,350 ft	820 ft	625 ft	600 ft	550 ft	475 ft	375 ft	250 ft	100 ft ⁶	—
80 mph	1,475 ft	910 ft	725 ft	700 ft	625 ft	550 ft	450 ft	350 ft	200 ft	—
85 mph	1,600 ft	1,010 ft	825 ft	800 ft	750 ft	675 ft	575 ft	450 ft	300 ft	150 ft

STOPPING SIGHT DISTANCE AT 25, 35, AND 45 MPH



PART 2: KEY UPDATES



PART 2: KEY UPDATES

Section 3A.05 Maintaining Minimum Pavement Marking Retroreflectivity

Standard:

- 01 Except as provided in Paragraph 5 of this Section, a method designed to maintain retroreflectivity at or above 50 mcd/m²/lx under dry conditions shall be used for longitudinal markings on roadways with speed limits of 35 mph or greater.

- Originally an update for the 2009 MUTCD
- Included in the 2023 MUTCD
- Compliance date of September 6th, 2026



PART 2: KEY UPDATES

- Applies to roads with posted speed limits of 35 MPH and greater
- Exceptions:
 - Where roadway illumination is provided
 - Roads with less than 6,000 vehicles per day
 - Curb markings, parking space markings, symbols/legends crosswalks and other transverse markings excluded

**Most local roads
are excluded**



PART 2: KEY UPDATES

Longitudinal Lines

- Center lines, edge lines, lane lines
- Width and colors are the same



PART 2: KEY UPDATES

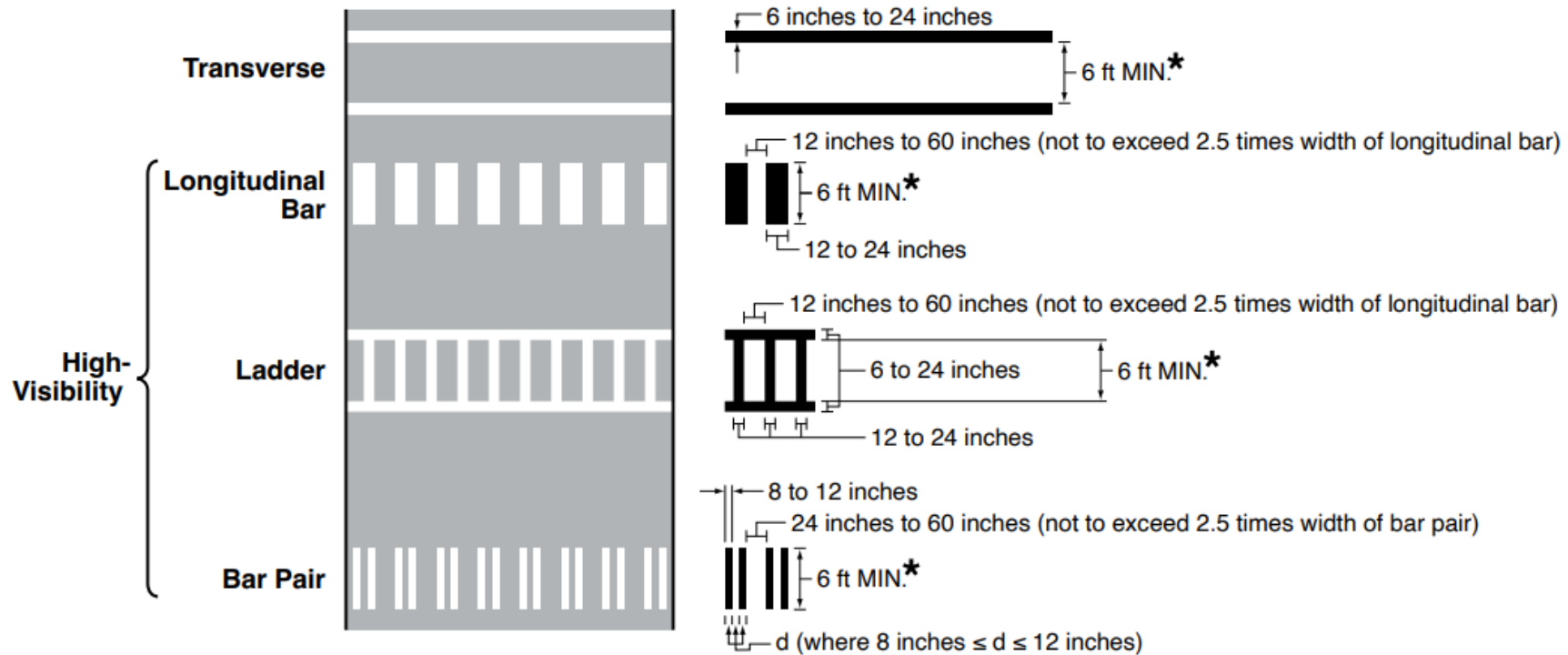
A nighttime photograph of a city street intersection. In the foreground, a wide crosswalk with white stripes is visible on a dark asphalt road. A red traffic light is illuminated in the center. To the right, a white SUV is stopped at the intersection. In the background, there are modern buildings with large glass windows, some of which are lit up. A sign on a pole reads "NO TURN ON RED". The scene is illuminated by streetlights and building lights, creating a vibrant urban atmosphere.

Crosswalks

- Significant updates and modifications
- Complete new Chapter 3C
- General emphasis in new MUTCD on vulnerable road user safety
- Study requirements clarified

PART 2: KEY UPDATES

Figure 3C-1. Crosswalk Markings

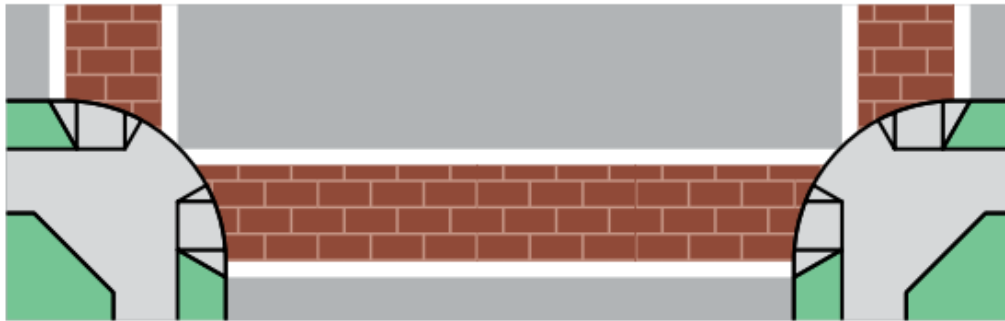


* Minimum crosswalk width shall be 8 feet where the posted speed limit is 40 mph or greater at a non-intersection crosswalk.



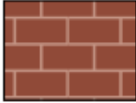

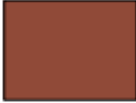





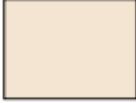
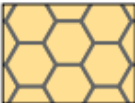

PART 2: KEY UPDATES

Figure 3H-1. Aesthetic Treatments for Transverse Crosswalks



Street art not compliant

Examples of:

Material	Geometry	Color
 Brick	 Lattice	 Red
 Stone	 Mesh	 Brown
 Paver	 Grid	 Tan
	 Polygon	 Clay

Sect. 3H.03 to 3H.04



PART 2: KEY UPDATES

Colored Pavement Markings

- Formally adopts green (bikes), red (buses), and purple lanes (toll lanes)



PART 2: KEY UPDATES

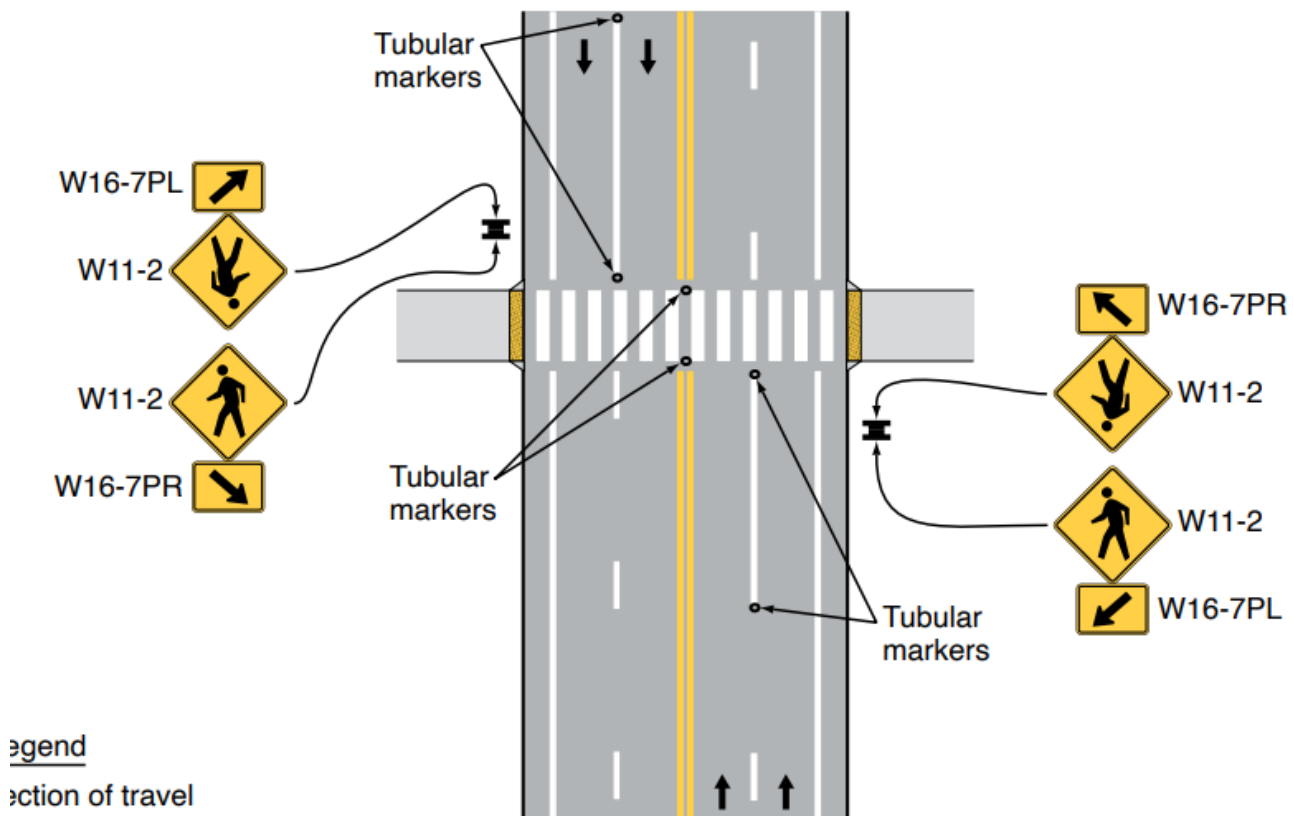
Channelization Devices used for Emphasis

- New Chapter 31
- Cones, tubular markers, vertical panels, lane separators, drums and barricades may be used to supplement pavement markings
- Many innovative applications



PART 2: KEY UPDATES

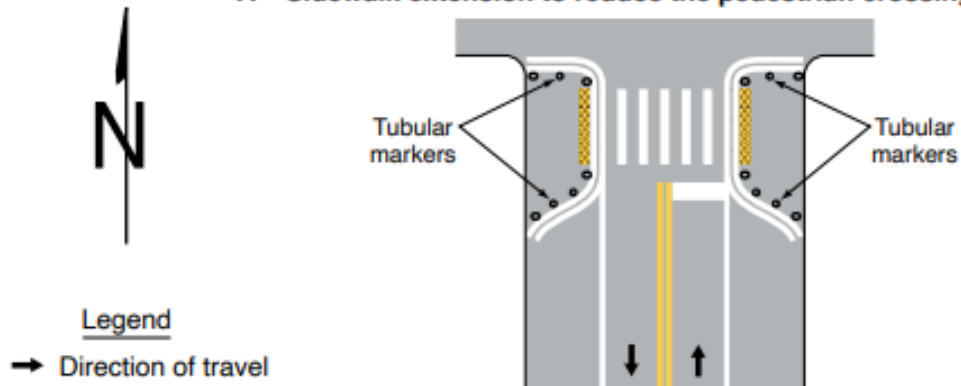
B – Tubular markers supplementing centerline and lane line markings



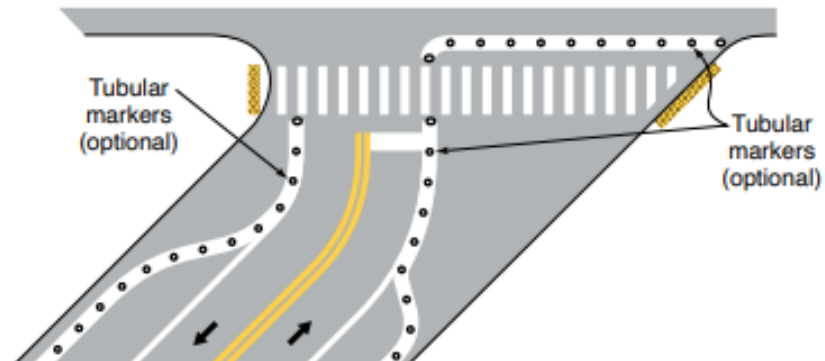
PART 2: KEY UPDATES

Figure 3J-6. Examples of Sidewalk Extensions Designated by Pavement Markings and Channelization

A – Sidewalk extension to reduce the pedestrian crossing distance



B – Channelizing for speed control and altered travel paths



SUMMARY

- Be aware of any additional information and decisions from PennDOT
- Use the existing MUTCD/PennDOT standards for any new traffic control device applications until official adoption of the 2023 MUTCD
- Any questions, ask!



CONTACT LTAP

Address : Pennsylvania Department of Transportation
Bureau of Planning and Research
400 North Street, 6th Floor
Harrisburg, PA 17120

Website: www.gis.penndot.pa.gov/LTAP/

Phone: 1-800-FOR-LTAP

Fax: 717-783-9152

Email: ltap@pa.gov

Copyright © 2024 by the Commonwealth of Pennsylvania. All rights reserved.

