

REVIEW & ADOPTION OF THE MUTCD, 11TH EDITION

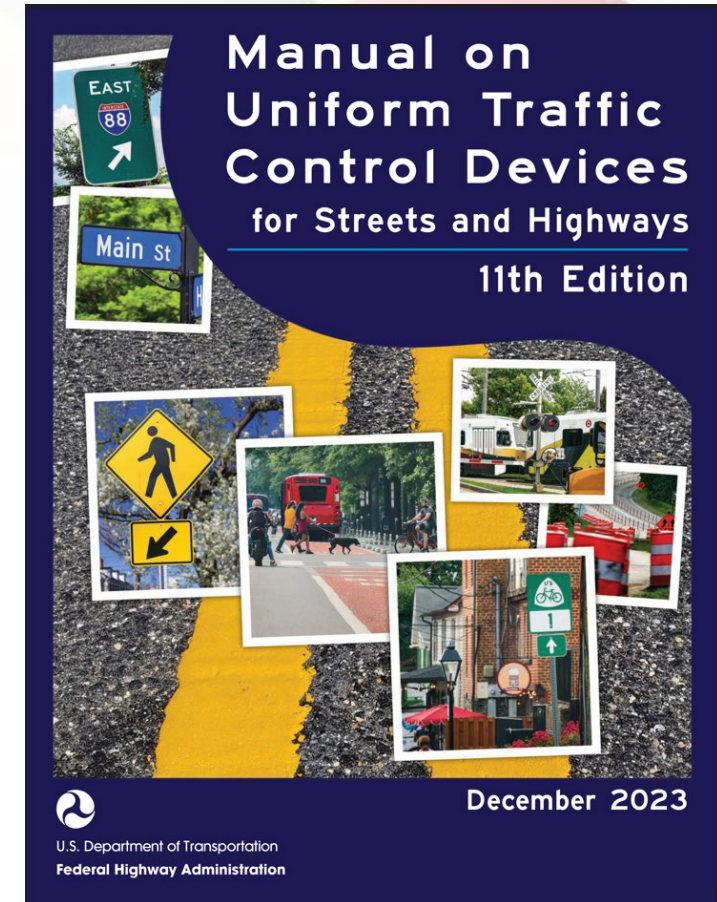
August 27, 2024

Outline

- **What is the MUTCD?**
- **MUTCD 11th Edition: Background**
- **Key Changes in the 11th Edition**
- **State Adoption**
- **Why We Need a State MUTCD: 2 Examples**
- **Review & Adoption Process**
- **Example Challenges for Clarity**
- **Looking Ahead**

What is the MUTCD?

- **The MUTCD is the national standard for** traffic control devices (TCDs) – **signs, pavement markings, and signals** on all streets, highways, and bikeways open to public travel.
- It has been continually evolving since 1935, with the last edition published in 2009.
- The content is divided into 4 levels of statements.
 - 1) **Standard**: use the verb “shall”
 - 2) **Guidance**: use the verb “should”
 - 3) **Option**: use the verb “may”
 - 4) **Support**: provide background information



MUTCD 11th Edition: Background

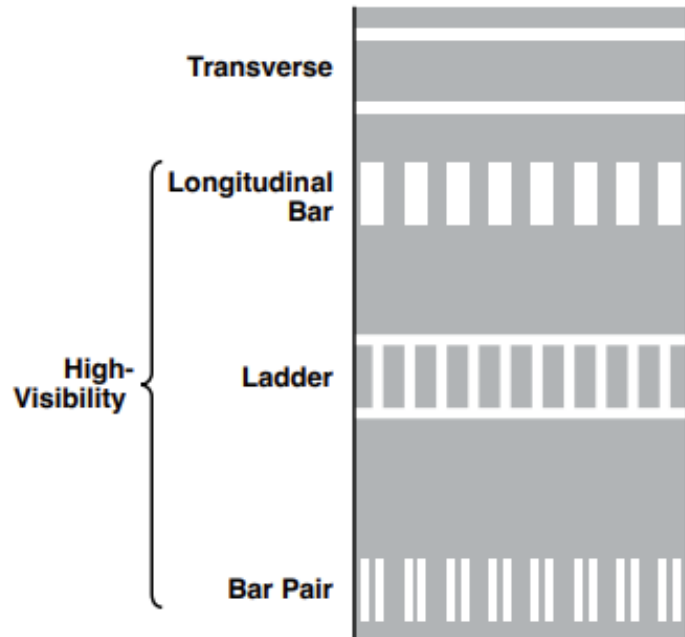
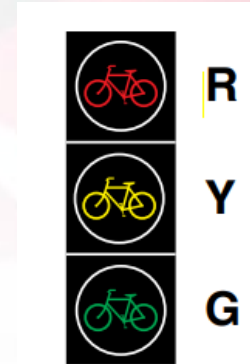
- Contains more than 650 changes in 9 Parts (1113 pages)
- Became **effective Jan. 18, 2024**
- States must adopt **within 2 years** of the effective date.

1	General	38 pages				
2	Signs	498 pages				
3	Markings	106 pages				
4	Highway Traffic Signals	116 pages				
5	Automated Vehicles	6 pages				
6	Temporary Traffic Control	204 pages				
7	School Areas	18 pages				
8	Railroad and Light Rail Transit Grade Crossings	60 pages				
9	Bicycle Facilities	66 pages				

MUTCD 11th Edition: Key Changes

1. Incorporation of TCDs that were under Interim Approval, including:

- EV charging service sign
- Bike signal
- Rectangular Rapid Flashing Beacons at crosswalks



2. Improvements to safety and accessibility for pedestrians, including:

- Crosswalk marking patterns

3. New **Part 5 TCD Considerations for AVs**

- To provide agencies with general considerations in assessing infrastructure needs
- To support the safe integration of AVs

State Adoption of the National MUTCD

- **By January 18, 2026**
- States must adopt
 - National MUTCD (as 18 states do like Arkansas),
- OR -
 - National MUTCD + State Supplement* (as 22 states do like Puerto Rico and DC)
- OR -
 - State MUTCD* (10 states, including **Maryland** and Texas, have developed state manuals).

* State Supplements and State MUTCDs
must be in **Substantial Conformance**
w/ the National MUTCD

Why We Need a State MUTCD

– To accommodate Maryland Law

- School Photo Enforced Sign (S5-1(1))

Md. Code, Transportation § 21-809

(b)(1)(viii)(2)(A)

Before activating a speed monitoring system, the local jurisdiction shall ensure that each sign that designates a school zone is proximate to a sign that indicates that speed monitoring systems are in use in the school zone



S5-1(1)

- ✓ To incorporate this law, Maryland created own Sign S5-1(1) and added a new Section 7B.18 to the National MUTCD.

Why We Need a State MUTCD

– By Engineering Judgement or Best Practice

- **Normal Line Width on State Roads**

MdMUTCD Section 3A.06

Standard:

The widths and patterns of longitudinal lines shall be as follows:

A. Normal line - 4 to 6 inches wide

A-1. Normal line - 5 inches wide on State owned, operated, and maintained roadways

MUTCD, 11th Edition, Section 3A.04

Standard:

The widths and patterns of longitudinal lines shall be as follows:

A. Normal line - 4 to 6 inches wide



Review & Adoption Process

- 1. Form review teams w/ participants from state and local agencies**
- 2. Kickoff meeting w/ review teams on February 29th, 2024**
- 3. Identify all conflicts w/ the 2011 MdMUTCD and Maryland laws**
- 4. Distribute review assignments**
 - A few pages at a time
 - Provide side by side comparisons between 2011 MdMUTCD and the new MUTCD
 - Provide some commentary/COMAR/SHA's guidelines
- 5. Compile all comments for consideration in decision making by OOTS Director**
- 6. Prepare and submit a new MdMUTCD to FHWA (by early 2025)**
- 7. Release a new MdMUTCD and offer trainings**

Example Challenges for Clarity

- **Truck Crossing Warning**

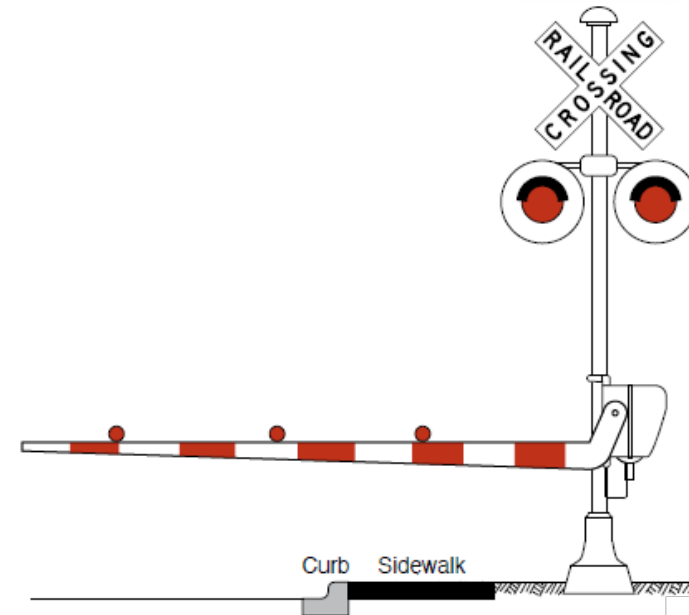
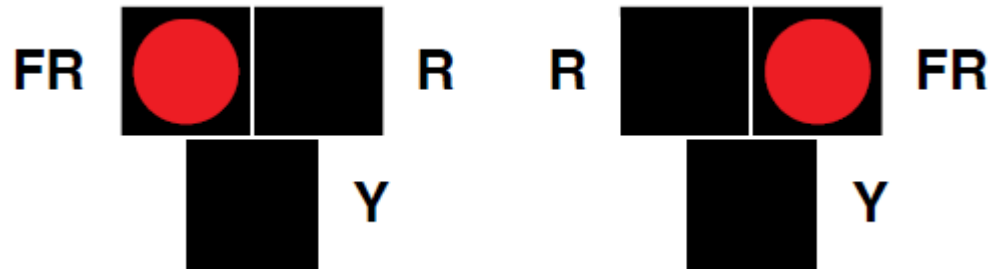


W11-10



W11-10(1)

- **Alternating Flashing Red w/ Different Meanings**



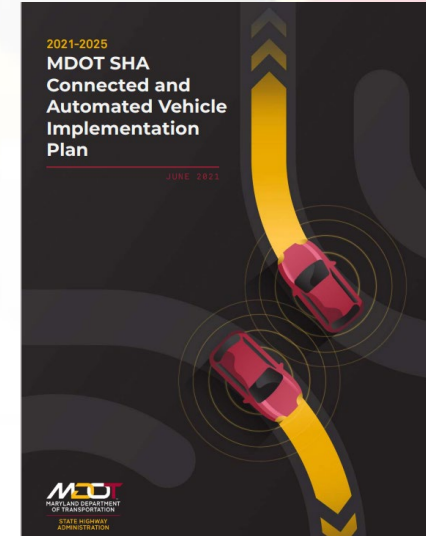
Looking Ahead

- **2021-2025 SHA CAV Implementation Plan**

“Explore and put a process in place to achieve **minimum acceptable** CAV signing and pavement marking guidelines, in compliance with current and new standards set by FHWA and MUTCD”

- **Research and Experimentation**

- Evaluate if the current design and maintenance of signage, pavement markings, and signals are compatible with the needs of AVs
- Experiment innovative TCD products from manufacturers that are non-compliant with the MUTCD



THANK YOU

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