

Manual on Uniform Traffic Control Devices

for Streets and Highways

2009 Edition

Notice of Proposed Amendments (NPA) to 2009 MUTCD

ITE San Diego Section
Thursday, April 15, 2021



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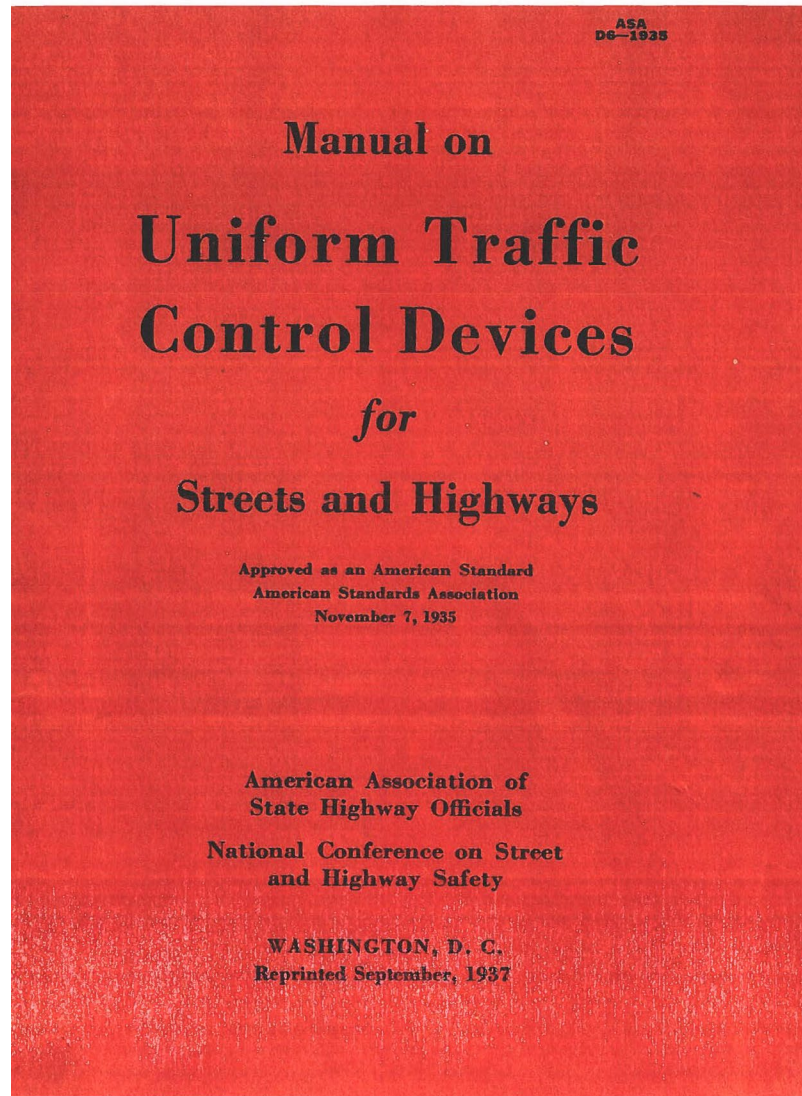


CA MUTCD

What makes the Ca MUTCD important?

- A. Federal Law requires ALL states to be in SUBSTANTIAL COMPLIANCE with the Federal MUTCD
- B. California Law (CVC) requires any TCD on a public road to be per CA MUTCD

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A. Federal MUTCD

- 1935 First Edition;
- 1966 Congress passed the Highway Safety Act requiring all states to adhere to a uniform standards;
- 1971 Edition of MUTCD adopted by FHWA as the National Standards;
- 2003 California adopted the Federal 2000 MUTCD with a CA Supplement

STATE OF CALIFORNIA

2019 VEHICLE CODE



THROUGH THE
2018
LEGISLATIVE
SESSION

B. California Vehicle Code

21100.1

...any TCD erected by a City or County shall conform to the uniform standards and specifications adopted by Caltrans pursuant to Section 21400

21400

Caltrans shall, after consultation with local agencies and thru public hearings (CTCDC process) adopt rules And regulations prescribing uniform standards and specifications for all official TCD placed pursuant to this code...

21401

Only those official TCD that conform to the uniform standards and specifications adopted by Caltrans shall be placed upon a street or a highway.



NCUTCD is a volunteer organization with a sole purpose is to assist FHWA in the development of the MUTCD



National Committee on Uniform Traffic Control Devices



NCUTCD composition

42 Sponsor Members

- AASHTO (8)
- ITE (8)
- NACE (3)
- APWA (3)
- NACTO (3)
- All Others (17)
 - *APBP (1)*
 - *Bike League (1)*

National Committee on Uniform Traffic Control Devices

SPONSORING ORGANIZATIONS

American Association of State Highway and Transportation Officials
American Automobile Association
American Highway Users Alliance
American Public Transportation Association
American Public Works Association
American Railway Engineering & Maintenance Of Way Assn.
American Road and Transportation Builders Association
American Society of Civil Engineers
American Traffic Safety Services Association
Association of American Railroads
Association of Pedestrian and Bicycle Professionals
Governors Highway Safety Association
Human Factors Resources
Institute of Transportation Engineers
International Association of Chiefs of Police
International Bridge, Tunnel and Turnpike Association
International Municipal Signal Association
League of American Bicyclists
National Association of County Engineers
National Safety Council

Future Meetings of NCUTCD

January 8-10, 2014 – Arlington, Virginia

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- ✓ NPA issued on December 14, 2020.
- ✓ NPA Comment period closes on May 14, 2021.
- ✓ Use FHWA – MUTCD form for comments.
- ✓ Comments can be submitted from;
 - ✓ Agency;
 - ✓ Group; or
 - ✓ individual

Depending on the Comments; FHWA may take up to a year to review/respond to comments;

Issue Final NPA to adopt MUTCD;

States, including California, have 2 years to adopt the new MUTCD

By May 2024, we may have a new CAL MUTCD.

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Key Changes:

- Incorporation current IA (RRFB, Green pavement for Bike; Red Pavement for Transit; and traffic signal warrant crash experience);
- Improvements to safety and Accessibility for Ped (signal pushbutton locations, crosswalk marking, and Treatment of ped in work zones);
- Expanded traffic control devices to improve safety and operation for bicyclists (intersection bicycle boxes, two-stage turn boxes, bicycle traffic signal faces, and Bicycle Route sign);

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Key Changes:

- Considerations for agencies to prepare roadways for automated vehicle technologies and to support the safe deployment of automated driving systems; and
- Safety and operational improvements (speed limits, Horizontal Curve warning signs, part-time travel on shoulders to manage congestion, and busway crossings).

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How does the MUTCD work?

3 Types of Requirement

- **STANDARD Statement;**
- *Guidance Statement;* and
- Option Statement.

Support Statements to support the
STANDARD, Guidance or Option Statements



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How does the MUTCD work?

Engineering Study vs Engineering Judgment

Engineering Judgment—Evaluation and Application of appropriate principles, provisions, and practices as contained in this Manual, for the purpose of deciding upon the applicability, design, operation, or installation of a traffic control device. Shall be exercised by an engineer, or by an individual working under the supervision of an engineer. Documentation of engineering judgment is not required.

65. Engineering Study—Analysis, Evaluation and Application of appropriate principles, provisions, and practices as contained in this Manual, for the purpose of deciding upon the applicability, design, operation, or installation of a traffic control device. Shall be performed by an engineer, or by an individual working under the supervision of an engineer. An engineering study shall be documented.

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Sample of Proposed Changes

- Replace Part 5 – Low Volume Roads with Part 5 – Automated Vehicles;
- Decorative Crosswalks;
- Warrants for ALL-WAY Stop Control; and
- Setting Speed limit.

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New Chapter 3C - Crosswalks

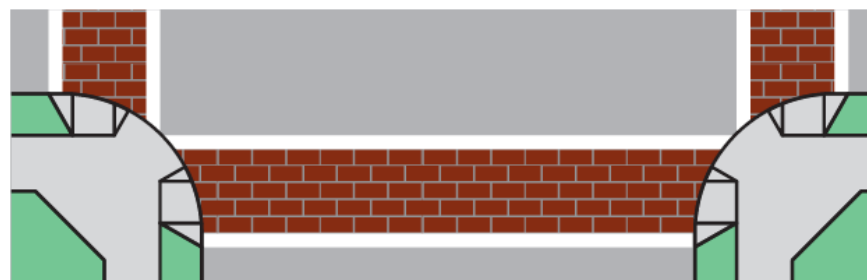
- **Section 3C.01 – General**
- **Section 3C.02 – Application of Crosswalk Marking**
- **Section 3C.03 – Design of Crosswalk Marking**
- **Section 3C.04 - Basic Crosswalks**
- **Section 3C.05 - High-Visibility Crosswalks**
- **Section 3C.06 - Longitudinal Bar Crosswalks**
- **Section 3C.07 - Perpendicular Crosswalks**
- **Section 3C.08 Longitudinal Bar Pair Crosswalks**

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Decorative Crosswalk

Figure 3H-1. Aesthetic Treatments for Basic Crosswalks



Examples of:

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

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Bike Green Color Pavement

Figure 3H-4. Examples of Green-Colored Pavement Applications

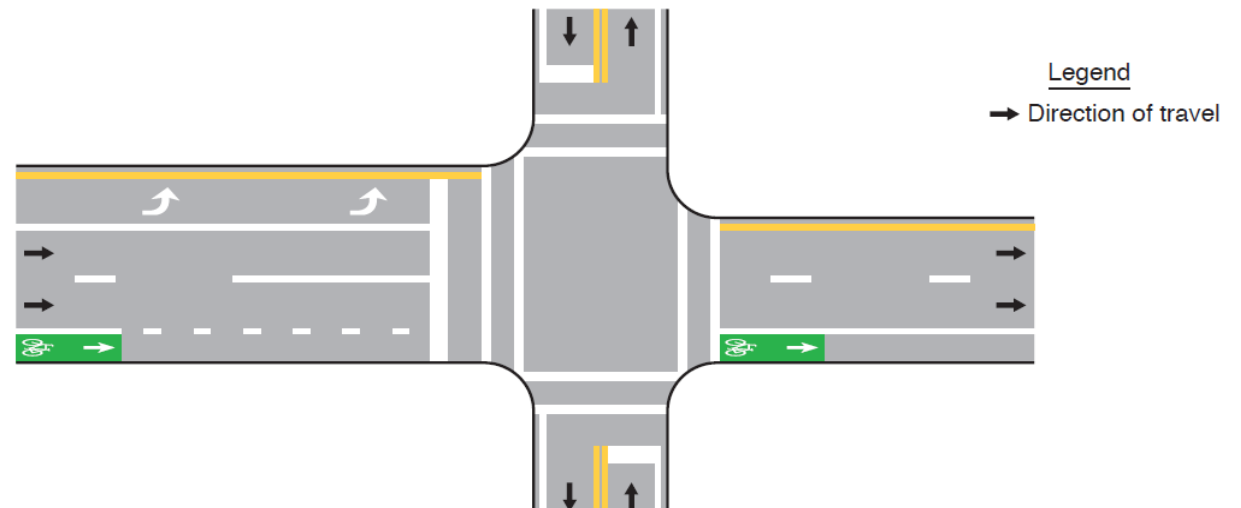
A – Applied to the entire corridor



B – Limited to the bicycle symbol and arrow



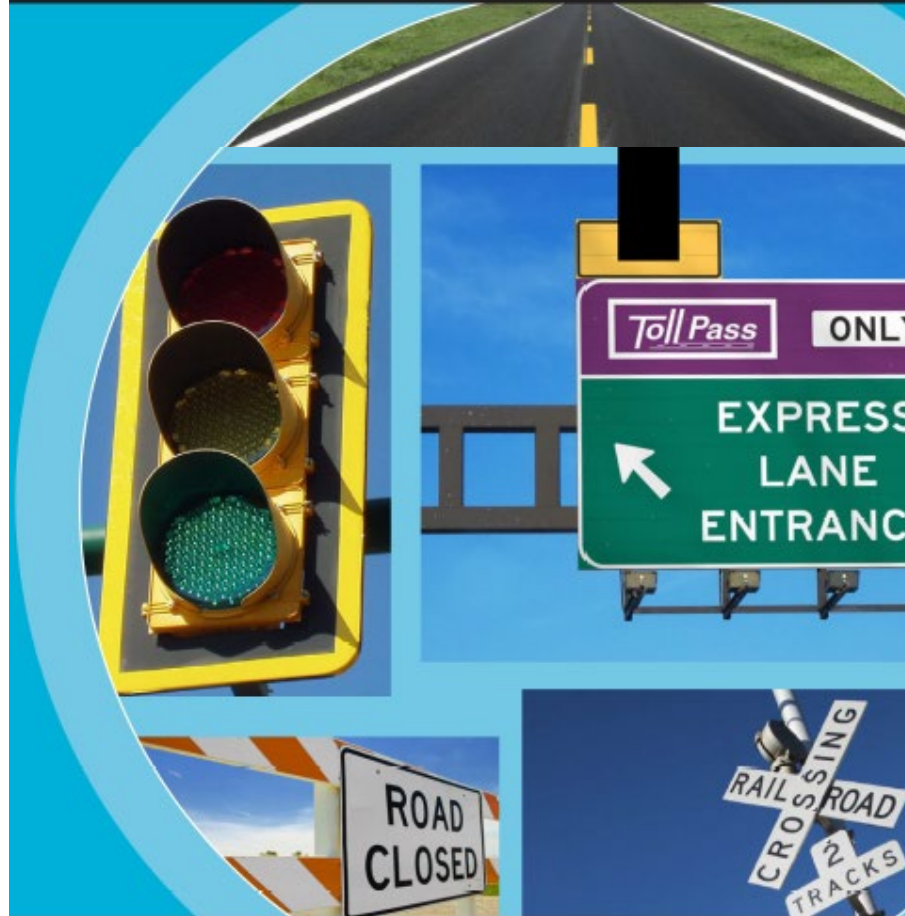
C – Applied approaching and departing an intersection



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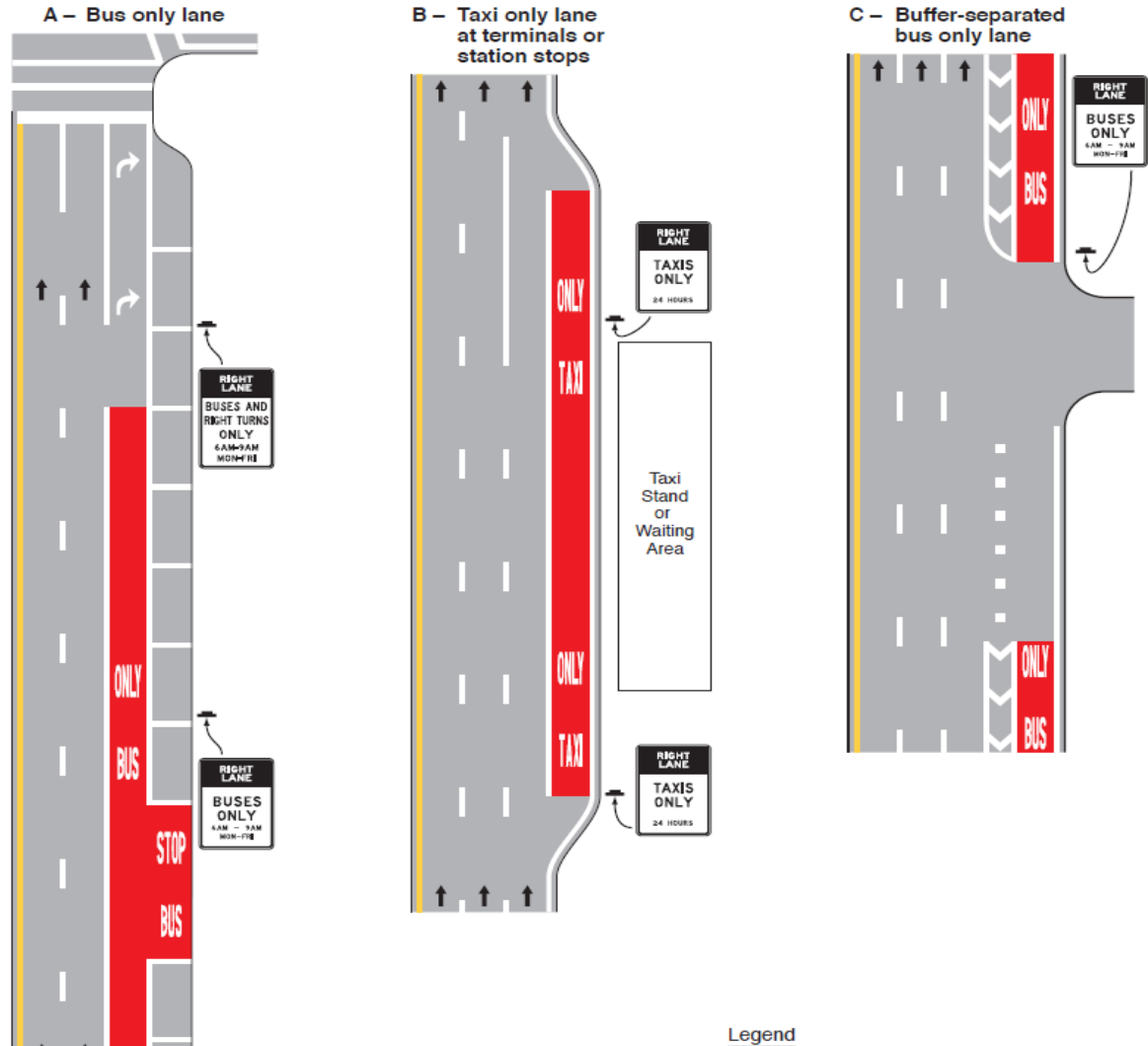
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Bus Red Color Pavement

Figure 3H-5. Examples of Red-Colored Pavement Applications



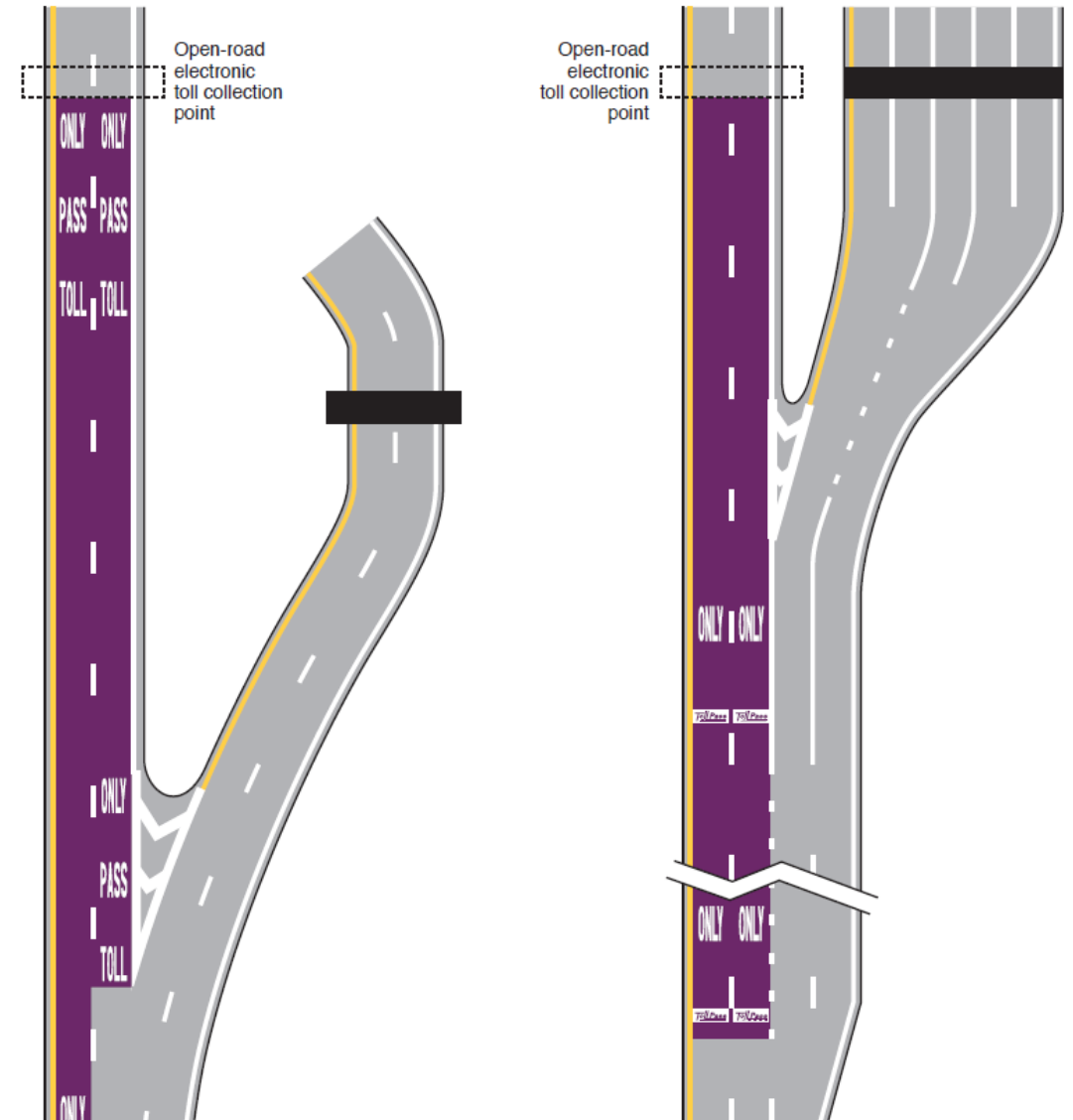
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Toll Purple Color Pavement

Figure 3H-6. Examples of Purple-Colored Pavement Applications (Sheet 2 of 2)



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All-Way Stop Controls

Current:

Guidance Statement:

- a) Interim condition for future Signal;*
- b) Crash (12-month period); and*
- c) Minimum PHV;*

Optional Statement:

- a) LT conflict;
- b) Ped Conflict;
- c) CSD; and
- d) 2 residential Collectors;

Proposed: (All are Warrants are
OPTIONAL)

Warrant A - Crash (**12 or 36 m. period**);

2019

California Manual for Setting Speed Limits (Revised July 2019)



Division of Traffic Operations
California Department of Transportation

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Speed

Speed within 5 MPH of 85th% speed +
5MPH downgrade for Conditions not
apparent to Drivers.

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AB 43 – Setting Speed Limits to Enhance Traffic Safety

Summary:

According to the National Transportation Safety Board, speeding accounts for nearly a third of all traffic fatalities. AB 43 implements policy recommendations from the California Transportation Agency as outlined in the Zero Traffic Fatalities Task Force by providing for more flexibility on setting speed limits based on safety.

Background:

California has based its speed limits using a decades old process known as the 85th percentile. Traffic surveyors would measure the speed drivers were driving at and set the speed limit to reflect what 85% of drivers were driving at. At the time this was believed to be the safest speed.

Speed limits, however, are not set based on safety, but rather on the speed driver's feel comfortable driving at, and transportation experts today widely reject the notion that the 85th percentile speed is the safest speed. The National Transportation Safety Board (NTSB), the National Association of City Transportation Safety Officials and California Transportation Agency (CalSTA) have all concluded we need to reform the way speed limits are set.

The faster a vehicle goes, the chances of survival in a car crash decreases tremendously, especially for vulnerable road users such as pedestrians, bicyclists, seniors and children. According to research conducted by AAA, a person struck by a vehicle going 32.5 mph has a 75% chance of surviving; the survival rate plummets to 50% if the vehicle is going only 8 mph faster. The survival rate is only 10% if the vehicle is travelling at 55 mph.

According to NTSB, Speeding is a factor in 31% of all traffic fatalities. For the first time due to the COVID

19 lockdowns led to speeding, with a corresponding increase in traffic fatalities. According to the National Transportation Safety Board, miles traveled dropped 10% and the per-mile death rate was estimated year-over-year to increase by 10% to 15% in 2020, and an additional road users were killed.

One of the proven ways to enforce speed limits, requires cities to conduct speed surveys in order for a speed limit to be set, even if no changes have been made. In some instances, the speed limit is increased to increase the speed limit. Los Angeles has increased its speed limits on nearly 200 miles of roads, the speed limits they

Reducing speed limits has been shown to reduce both injuries and fatalities. According to the University of California, Studies, research has shown that on limited access roads, reducing speed limits can reduce injuries between 39% to 50%. A range of research shows that speed limits may be reduced by 10% to 15% showing an 80% reduction in fatalities.

AB 2363 (Friedman) 2018, required CalSTA to conduct a Zero Traffic Fatalities Task Force study on the Legislature on ways to change the

Speed

Proposed Speed State Law Changes – AB 43

AB 43 (as amended on 03/22/21):

- requires traffic surveyors to take into account the presence of vulnerable groups, including children, seniors, the unhoused and persons with disabilities when setting speed limits;
- permits cities to lower speed limits beyond the 85th percentile on streets with high injuries and fatalities, and ensures they will never again have to raise a speed limit on any road if there have been no design changes; and limits the need for updated traffic surveys on certain streets; and
- provides for greater flexibility in setting school speed limits to protect children.

Support:

San Francisco Municipal Transportation Agency
Southern California Association of Governments

Contact:

Julia Kingsley and David Sforza
Assembly Transportation Committee
916.319.2093

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David.Sforza@asm.ca.gov

Jim Metropulos
Office of Assemblymember Laura Friedman
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Speed

SPEED LIMIT SIGNS AND PLAQUES

Section 2B.21 Speed Limit Sign (R2-1)

Standard:

Speed zones (other than statutory speed limits e.g, established by Federal or state law) shall only be established on the basis of an engineering study that has been performed in accordance with traffic engineering practices.

Guidance:

Among the factors that should be considered when establishing or reevaluating speed limits within speed zones are the following:

- A. Speed distribution of free-flowing vehicles (such as current 85th percentile; the pace; review of past speed studies)*
- B. Reported crash experience for at least a 12-month period*
- C. Road characteristics (such as lane widths; shoulder condition; grade; alignment; median type; sight distance)*
- D. Road context (such as roadside development and environment (number of driveways ,land use); functional classification; parking practices; pedestrian activity; bicycle activity).*

When a speed limit within a speed zone is posted on freeways or expressways, it should be within 5 mph of the 85th-percentile speed of free-flowing traffic vehicles.

Except in urbanized locations within rural regions, when a speed limit within a speed zone is posted on a rural highway, it should be within 5 mph of the 85th-percentile speed of free-flowing traffic vehicles.

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Speed

0898

Federal Register / Vol. 85, No. 240 / Monday, December 14,

DEPARTMENT OF TRANSPORTATION
Federal Highway Administration
23 CFR Parts 470, 635, and 655
FHWA Docket No. FHWA-2020-00011

2012-2013
National Standards for Traffic Control Devices; the Manual on Uniform Traffic Control Devices for Streets and Highways; Revision

ACTION: Proposed rule; notice of proposed amendments (NPA).
AGENCY: Federal Highway Administration (FHWA), U.S. Department of Transportation (DOT).

SUMMARY: The Manual on Uniform Traffic Control Devices (MUTCD) is incorporated as a national standard for all public roads. The purpose of this NPA is to revise the national standards and options for traffic control devices in all parts of the country. The proposed changes are intended to reflect advances in technology and set the stage for incorporating recent trends and innovations to take shape. The proposed changes would promote the safe and efficient utilization of roads and improve the design of traffic control devices. These changes are being designated as "proposed" to ensure that they are open to public comment. The proposed changes are being designated as "proposed" to ensure that they are open to public comment. The proposed changes are being designated as "proposed" to ensure that they are open to public comment.

DATES: Comments must be received on or before March 15, 2021. Late-filed comments will be considered to the extent practicable.

ADDRESSES: To ensure that you do not duplicate your comments, please submit them by only one of the following means:
• **Electronic:** <http://www.regulations.gov> and follow the online instructions for submitting comments.
• **Mail:** Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Ave. SE, West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
• **Hand Delivery:** West Building Ground Floor, Room W12-140, 1200 New Jersey Ave. SE, between 9 a.m. and 5 p.m., e.t., Monday through Friday, except Federal holidays. The telephone number is (202) 366-9329.

FOR FURTHER INFORMATION CONTACT: Mr. Kevin Sylvester, Office of the Chief, Transportation Operations, (202) 366-2161, Kevin.Sylvester@dot.gov, or Mr. William Winnie, Office of the Chief, Highway Administration, 1200 New Jersey Avenue SE, Washington, DC 20590.

SUPPLEMENTARY INFORMATION:
This document and all comments received may be viewed online through the Federal eRulemaking portal at <http://www.regulations.gov>. The website is available 24 hours each day, 365 days each year. An electronic copy of this document may also be downloaded by accessing the Office of the Federal Register's home page at: <https://www.federalregister.gov>.

I. Purpose of the Regulatory Action
This regulatory action seeks to collect comments from the public on proposed revisions to the MUTCD. The proposed changes are intended to streamline many of the processes and reduce burdens on State and local agencies by incorporating the successful devices from over 180 official experiments that FHWA has approved, including congestion-reduction strategies such as variable speed limits, dynamic lane control and shoulder use, and pedestrian safety enhancements such as the rectangular rapid-flashing beacon.

The proposed changes would update the technical provisions to reflect advances in technology and set the stage for incorporating recent trends and innovations to take shape. These changes would promote the safe and efficient utilization of roads and improve the design of traffic control devices. These changes are being designated as "proposed" to ensure that they are open to public comment. The proposed changes are being designated as "proposed" to ensure that they are open to public comment. The proposed changes are being designated as "proposed" to ensure that they are open to public comment.



San Diego, Thursday, April 15, 2021

How to Submit Comments

DATES

Comments must be received on or before **May 14, 2021**. Late-filed comments will be considered to the extent practicable. Please note, the deadline has been extended from March 15, 2021 to May 14, 2021.

ADDRESSES

Submit by only one of the following means:

- **Federal eRulemaking Portal**

Go to <http://www.regulations.gov> and follow the online instructions for submitting comments.

- **Mail or Hand Delivery**

Docket Management Facility, U.S. D.O.T., 1200 New Jersey Ave. SE, West Building Ground Floor, Room W12–140, Washington, DC 20590–0001.

Hand delivery only between 9 a.m. - 5 p.m., Monday - Friday, except Federal holidays.

INSTRUCTIONS

Must include the agency name and docket number or the Regulatory Identification Number (RIN) at the beginning of the comments. All comments received will be posted without change to <http://www.regulations.gov>, including any personal information provided.