

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

23 CFR Part 655

[FHWA Docket 95-8]

RIN 2125-AD57

National Standards for Traffic Control Devices; Revision of the Manual on Uniform Traffic Control Devices

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Final Amendments to the Manual on Uniform Traffic Control Devices (MUTCD).

SUMMARY: This document contains amendments to the MUTCD which have been adopted by the FHWA for inclusion therein. The MUTCD is incorporated by reference in 23 CFR Part 655, Subpart F and recognized as the national standard for traffic control devices on all public roads. The amendments affect various parts of the MUTCD and are intended to expedite traffic, improve safety and provide a more uniform application of highway signs, signals, and markings.

DATES: The final rule is effective January 9, 1997. Incorporation by reference of the publication listed in the regulations is approved by the Director of the Federal Register as of January 9, 1997.

FOR FURTHER INFORMATION CONTACT: Contact Ms. Linda L. Brown, Office of Highway Safety (202) 3662192, Department of Transportation, Federal Highway Administration, 400 Seventh Street, SW., Room 3416, Washington, DC 20590. Office hours are from 7:45 a.m. to 4:15 p.m., e.t., Monday through Friday except Federal holidays.

SUPPLEMENTARY INFORMATION: The MUTCD, 1988 Edition is available for inspection and copying as prescribed in 49 CFR Part 7, Appendix D. It may be purchased for \$44 from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7954, Stock No. 650-001-00001-0. The purchase of the MUTCD includes the new MUTCD Part VI, Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operation published September 1993.

The FHWA both receives and initiates requests for amendments to the MUTCD. Each request is assigned an identification number which indicates by Roman numeral, the organizational part of the MUTCD affected and, by Arabic numeral, the order in which the

request was received. This document contains the disposition of proposed changes which were published on June 12, 1995, at 60 FR 31008. Text changes required as a result of amendments contained herein will be distributed to everyone currently appearing on the FHWA Federal Register mailing list and will be published in the next edition of the MUTCD. Those wishing to be added to this Federal Register mailing list should write to the Federal Highway Administration, Office of Highway Safety, HHS-10,400 Seventh Street, SW., Washington, DC 20590.

The FHWA has reviewed the comments received in response to FHWA Docket No. 95-8 and other information related to the MUTCD and these proposals. The FHWA is acting on the following requests for change to the 1988 edition of the MUTCD. Each action and its basis is summarized below:

Request I-10(C)—Standardization of Traffic Control Devices on Private Property

This amendment to the MUTCD adds language to section 1A-3 to encourage each State to adopt Section 15-117 of the Uniform Vehicle Code (UVC). This section of the UVC states that traffic control devices used on private property (e.g. shopping center, business complex or sports arena) open to the public shall be installed and maintained pursuant to the standards contained in the MUTCD. Although adoption of this amendment as a vehicle code is a State decision, we believe that it is in the interest of the public's safety that we strongly encourage the use of standard traffic control devices on private property open to public travel.

The FHWA received a total of 29 comments in response to this change to the MUTCD. Twenty-six comments supported this amendment to extend the provisions contained in the MUTCD to all streets and highways open to public travel, regardless of ownership. Three of the 29 comments opposed including this language in the MUTCD but agreed with the idea of encouraging traffic control devices on private property at the State's option.

This change will not impose any additional costs on State and local highway jurisdictions but will encourage uniformity of traffic control devices.

Request I-12(C)—Add New Highway Classification for Special Purpose Roads

Although 20 of the 28 comments in response to this request were in favor of the concept to add a new highway classification and appropriate standards

to the MUTCD to address the special needs for low volume and low speed road signs, most comments indicated that further study is needed to define appropriate categories and standards. The National Committee on Uniform Traffic Control Devices (NCUTCD) is developing proposed text for the MUTCD on traffic control devices for low-volume roads.

The FHWA believes that the information contained in the NCUTCD proposal will provide more substantive data. Additional information will be published in a future notice of proposed rulemaking and the public will be given another opportunity to review and comment. This request is deferred until that time.

Request II-118(C)—Standard Motorcycle Warning Sign

The FHWA conducted research evaluation on seven possible motorcycle symbol signs to warn motorcyclists of possible hazardous roadway conditions. Since the motorcycle symbols did poorly in the motorist comprehension test, the FHWA is not adopting a standard symbol at this time. Twenty-two of the 27 people responding to this request agreed with this FHWA position. The evaluation results indicated that the intended message is difficult to portray. Generally, the motorist is used to seeing the hazard for which the driver is being warned shown in the sign. Many of the incorrect test responses indicated that the signs were warning of a "hazard" and the presence of "motorcycles" ahead.

The FHWA will research this concept further and try to develop a symbol sign which may be understood by both the motorist and the motorcyclist. Meanwhile, the FHWA recommends that the State and local highway agencies develop special word message signs as allowed in MUTCD section 2C-40 and use existing symbol signs to warn both motorcyclists and motorists of specific hazardous roadway conditions.

Request II-120(C)—Standard Warning Sign for Substandard Vertical Curves Over Railroad Crossing (W10-5)

The FHWA is adopting a new advance symbol sign for railroad grade crossings where conditions are sufficiently abrupt to create a hang-up of long wheelbase vehicles or trailers with low ground clearance. The MUTCD already contains provisions for the placement of special word message signs where there is a need to give advance notice of special hazardous conditions at railroad grade crossings. Based on conducted research, the FHWA amends the MUTCD to also

include the following new warning symbol sign for "Low Ground

Clearances" (W10-5) which may be used at these special locations:

BILLING CODE 4910-22-P



W10-5

BILLING CODE 4910-22-C

This symbol is used by the New York State Department of Transportation (NYSDOT) and is similar to the research symbol tested and found to be acceptable with the truck driver population. Sometimes a change from word messages to symbols requires time for public education and transition. New warning and regulatory symbol signs such as this that may not be readily recognizable by the public, shall be accompanied by an educational plaque which is to remain in place for at least 3 years after initial installation. Advisory messages and speed plates may also be used to supplement these signs. The appropriate color is yellow background with black symbol and border. This information is included as a new section 8B-11 to the MUTCD.

Since the decision for a State or local highway jurisdiction to use this sign is optional, no additional costs are imposed.

Request II-138(C)—Stop Sign Placement

The FHWA received 21 out of 30 comments in agreement with the 50 feet maximum placement distance for intersection Stop Signs as shown in Figure 2-2. Nine of the comments which opposed the 50 feet maximum felt that more placement flexibility was needed. Although the FHWA believes that 50 feet is an optimum distance for sign conspicuity reasons, we do recognize that there may be times when flexibility is needed. It is important to

note that Figure 2.2 is a typical drawing and not a standard drawing. A typical drawing provides recommended practice for the design, application, and installation of traffic control devices. In this specific case, 50 feet is the recommended maximum placement distance for the Stop Sign unless an engineering study by a State or local highway agency determines that an increased distance is needed.

MUTCD Section 2A-21 is modified to reflect the flexibility allowed in this typical drawing. This change will not impose any additional costs on State or local highway jurisdictions.

Request II-179(C)—Don't Drink and Drive Symbol Sign

The FHWA received requests from concerned citizens including Mothers Against Drunk Driving (MADD) to adopt a symbol sign in the MUTCD to deter the drinking public from driving while intoxicated. Based on research studies and docket comments, the FHWA does not intend to include a symbol in the MUTCD. However, State and local highway agencies do have the option of developing special regulatory word message signs such as "Drive Sober" and other appropriate word messages as provided in Section 2B-44 of the MUTCD.

The FHWA Office of Research and Development collected comprehension and recognition data for several variations of symbol signs but found the word message sign to be better. The FHWA initially proposed to add the

word message "Drive Sober" sign into MUTCD section 2B-44 "Other Regulatory Signs," instead of a symbol sign because it performed very well in the evaluation study. Its message of "drive sober" covers both drivers under the influence of alcohol and drivers under the influence of illicit drugs. Based upon the comments we received, there was wide variation in what the appropriate word message should be for this sign.

The FI-IWA received 31 comments in response to this change to the MUTCD. A total of seventy-seven percent (24 of 31) of the respondents oppose the use of this sign. Of the 23 percent that support the sign, 12 percent want its use limited or made optional. There were also four related letters addressed to the Office of Highway Safety regarding a "Drunk Driving Victim Memorial Sign Program" that is being tried in Oregon and Washington. Although the results of this program are not yet available, these letters imply support of a "Drive Sober" sign. The inclusion of these additional letters change the numbers to 69 percent (24 of 35) in opposition and 31 percent (11 of 35) in support. The primary reasons given in the comments for opposing the sign are as follows:

1. No need for sign,
2. Will encourage vandalism,
3. Costly to install and maintain,
4. It does not regulate, warn or give guidance.

Request II-193(C)—Logos on Specific Service Signs

This item is more of a clarification rather than a change to the MUTCD. The FHWA is modifying the language in section X-5.2 to clarify that a business LOCO can be either a business identification symbol, trademark, or a word message. When a business LOGO is a word message then it should have a blue background with a white legend and border. Twenty-one of the 25 comments received agree with this

clarification. This amendment does not impose any additional requirements or costs to State and local highway jurisdictions.

Request II-194(C)-Recycling Collection Center Sign (I-11)

This amendment adopts a symbol sign for Recycling Collection Centers (I-11). Since the symbol is already in use and recognized by the public, the FHWA intends to include this symbol in MUTCD Section 2D-48 for directing

motorists to recycling centers. Twenty one of the 26 comments received supported this symbol. These signs should not be used on freeways and expressways. If used on these facilities, the recycling center sign is considered as one of the supplemental sign destinations. Since the decision for a State or local highway jurisdiction to use this sign is optional, no additional costs are imposed.

BILLING CODE 4010-22-P



COLORS
RETROREFLECTIVE WHITE LEGEND
AND BORDER ON RETROREFLECTIVE
GREEN BACKGROUND

Request II-199(C)-Reclassify Reduced Speed Signs From Regulatory Series to Warning Series

This request to reclassify the Reduced Speed Signs as a warning sign rather than regulatory sign is denied. Twenty of the 27 comments received supported this decision.

All of the speed limit signing series are currently regulatory. The Reduced Speed Ahead signs perform adequately as regulatory signs. The commenters indicated, and FHWA agrees, there is not a need to change this sign from a regulatory sign to a warning sign. The driver is familiar with the current signing.

Additionally, to change the present signs from black on white to black on yellow would impose an unnecessary

cost burden to the State and local highway jurisdictions.

Request II-204(C)—Golf Cart Crossing Symbol

The FHWA received a request from both Virginia Beach, Virginia, and Palm Desert, California, to develop a warning symbol for golf cart crossings. Palm Desert has also indicated the need to warn motorists to share the roadway with these slower moving vehicles. There are really two issues to address in this section: (1) The need for a golf cart crossing symbol, and (2) The need for a sign to warn motorists to share the roadway with the slower moving golf carts.

(1) The need for a golf cart crossing symbol:

A total of 73 percent (19 of 26) of the respondents agree that a standard symbol sign is needed for golf cart crossings. A total of 27 percent (7 of 26) were opposed to a standard symbol sign for golf cart crossings.

(2) The need for a sign to warn motorists to share the roadway with the slower moving golf carts:

A total of 42 percent (11 of 26) of the respondents agree that there may be a need for a sign to warn motorists to share the roadway with the slower moving golf carts. A total of 58 percent (15 of 26) of the respondents opposed the use of such a sign because they feel these golf carts should not be sharing the roadway since they do not meet the safety requirements of motor vehicles.

BILLING CODE 4010-22-P



W11-11

BILLING CODE 4910-22-C

Based on modifications to the conducted research, the FHWA approves the "Golf Cart Crossing" warning symbol sign (W11-11) shown above. This new warning symbol shall be accompanied by an educational plaque which is to remain in place for at least 3 years after initial installation (see MUTCD section 2A-13). This same symbol may also be used at the State's discretion in those situations where it is necessary to warn motorists to share the road with golf carts and other slower-moving forms of transportation, such as bicycles and mopeds. This amendment does not impose any additional costs on State or local highway jurisdictions. The "Share the Road" sign is addressed in more detail in Request II-228(C).

Request II-205(C)-Mandatory Turn Sign Alternatives

After further review of this request to allow the mandatory movement overhead sign (R3-5) to be post-mounted as an alternate to the mandatory turn word message sign (R3-7), the FHWA has decided not to approve this application. Although 19 of the 27 comments received agreed with FHWA's initial position to relax the requirements in this section of the MUTCD, the FHWA is concerned that the single arrow and word message "ONLY" on a post-mounted R3-5 sign does not adequately indicate to the motorist the applicable lanes for the required movement. Eight of the 27 comments received also expressed this concern. The FHWA is also concerned about the increased cost associated with the need for higher sign posts and additional warning panels. Therefore, this request for change to the MUTCD is denied.

Request II-209(C)—Signs for the Disabled

The signs for two types of facilities designated for persons with disabilities were considered in this request: (1) The sign for "Van Accessible" parking and (2) the sign for telephone facilities accessible to the hearing impaired.

The MUTCD section 2B-31 is amended to add a "Van Accessible" sign (R7-8a) for placement below the Reserved Parking sign (R7-8) where parking spaces are designed to accommodate wheelchair-accessible vans. The "Van Accessible" sign should have green legend on a white background or the same colors as any alternate design used for R7-8. If used as a guide sign, the "Van Accessible" sign should have white legend on a blue background and include a directional arrow. Twenty-one of the twenty-eight comments supported this amendment. Since use of the sign is optional for State or local highway jurisdictions, no additional costs are imposed.

The request to add to the MUTCD the special hearing impaired telephone symbols for text telephones and for assistive listening systems is denied. Sixteen of the twenty-eight comments received opposed the use of this signing. Most comments expressed concern regarding the types of signs and many comments indicated that other adequate types of signs and information are available for these accessible facilities. Also these facilities increasingly are being provided at many public facilities and through mobile telephone. The road user's misunderstanding of the symbol and the proliferation of signs were also concerns discussed in the comments.

Request II-211(C)-Non-Carrier Airport Symbol

This request to adopt a new symbol sign to distinguish non-carrier airports is denied. Although the FHWA is not adopting a new symbol, provisions are

contained in MUTCD section 2D-48 for distinguishing between different types of transportation facilities. They provide for the use of a supplemental plaque with the specific name of the facility.

The text in MUTCD section 2D-48 is expanded to specifically address airport signing. The text indicates that supplemental plaques with the name of the airport may be used below the current airport symbol sign (I-5). The addition of the airport name to the guide sign provides specific and commonly used destination information which the motorist can readily associate with their destination and type of airport service available, including commercial and/or non-carrier services. Eighteen of the twenty-five comments received agreed with this FHWA position.

Request II-212(C)-Increased Letter Size of Street Name Signs

The section 2D-39 of the MUTCD is modified to increase the recommended letter sizes for street name signs to a minimum of 6 inch uppercase letters, 4 inch lowercase letters, and 3 inch letters for street abbreviations or city sections (e.g., Avenue, Road, NW.). However, for local roads with speed limits 25 mph or less, the existing MUTCD language is modified to provide an option for the continued use of a minimum 4 inch uppercase letter size with 2 inch lowercase letters for street abbreviations or city sections. All street name signs are required to be retroreflective.

Twenty-seven of the forty comments agreed with the proposed changes. However, many of these and of the opposing comments indicated that for roads with low volume and low speeds, the current letter sizes are adequate. The 4-inch option was added in response to these concerns and because it reduces associated costs of installing larger sign posts.

Since the recommended change from 4 inch to 6 inch letter size may impose some additional costs on State and local jurisdictions, the FHWA is establishing a compliance date for the installation of street name signs. The compliance date is 15 years after the issue date of this final rule or as signs are replaced within the 15 year period. This will allow replacement after a normal service life of the signs.

Request II-214(C)—Golf Course Recreational Area

This request to include a symbol sign for guiding motorists to golf courses is denied. Although 13 of the 24 comments supported the use of a symbol, the type of symbols recommended varied widely in design. The comments opposing the use of a symbol, including those from States with many golf courses, indicated that word messages such as "Public Golf Course" or the golf course name are more effective for the guide signs. Comments also indicated concerns regarding sign proliferation particularly associated with a seasonal or low traffic generating facility.

Request II-215(C)—Regulatory and Street Name Signs on Same Post

This amendment to the MUTCD allows the option of installing regulatory and street name signs on the same sign post. Twenty-three of the twenty-seven comments supported this amendment since its use may simplify the sign installation process and improve motorist guidance information. Two of the four commenters who opposed adoption agree with the concept, but disagree with the requirement for vertical separation of 6 inches. The purpose of vertical separation is to ensure that the shape of the sign, particularly the STOP sign, is recognized by motorists.

Sections 2B and 2D are changed to allow this alternate application. Vertical separation of the signs is not required as long as the shape of the signs are not compromised. This amendment does not impose any additional requirements or costs to State and local highway jurisdictions.

Request II-218(C)—Reduce Number of Panels Shown on Directional Assemblies

This amendment to reduce the amount of information displayed on

directional assemblies by displaying only one route shield and route number with appropriate cardinal directions and arrows is denied. Experience and performance history indicate that the present system performs well and the public understands it. Although 16 of the 25 comments supported the concept of reducing the amount of information displayed, many expressed concern that the proposed assembly method may be confusing.

Request II-224(C)—Cellular Phone Sign for Emergency Situations

The proposed cellular phone symbol sign for use in emergency situations is denied. However, the FHWA will conduct further research and will consider other alternates for a symbol including those submitted in the docket responses. The FHWA received a total of 24 comments in response to this proposal. Many of the 21 comments in agreement with the proposal expressed concern that this particular symbol was confusing. Although they agreed with the concept of a sign to inform the motorist how to dial for emergency assistance, they recommended a word message sign instead of the symbol.

Until an appropriate symbol is developed through research, the FHWA recommends using a word message sign similar to the standard D12-3 sign. The sign would read, "Emergency Dial-" along with the appropriate number to dial. MUTCD section 2D-45 is revised to reflect this change. This amendment will not impose any additional requirement or costs on State and local highway jurisdictions.

Request II-225(C)—Local Transit Logo and Carpool Symbol

This amendment increases the maximum vertical dimension of transit system logos on Park and Ride signs to 36 inches for freeways and expressways. All 25 of the comments received supported this change. The larger signs will provide greater legibility on high speed facilities such as freeway and expressways and sections 2D and 2E are revised accordingly. This amendment will not impose any additional requirements or costs on State and local highway jurisdictions.

Request II-226(C)—General Motorist Service Signing for Alternative Fuels

The FHWA revises MUTCD sections 2D-45 and 2F-33 to include within the

current "GAS" category for general services the use of word message alternative fuel designations for compressed natural gas (CNG) and electric vehicle (EV) charging. As an option, the D9-11 symbol sign may be used with the appropriate letter abbreviations substituted for the appropriate alternative fuel. The FHWA will conduct research on an appropriate symbol sign for electric vehicle charging.

Twenty-one of the thirty comments received agreed that signing for alternative fuels is needed. With the increasing number of vehicles using alternative fuels in response to the Clean Air Act Amendments of 1990, consideration of additional signs to provide availability information to the motorist has merit. This change allows States and local highway agencies to place signs for whatever alternative fuels are available at various locations. Since the decision for a State or local highway jurisdiction to use this sign is optional, no additional costs are imposed.

Request II-228(C)—Share the Road Warning Signs

This amendment to the MUTCD adds a new section 2C-39 to include a discussion regarding the "Share the Road" word message sign (W16-1) which may be used with the farm machinery symbol (W11-5), the bicycle symbol (W11-1), and other appropriate symbol signs where a need exists to warn drivers to share the road with other modes of roadway transportation. The "Share the Road" sign shall have a yellow background with black message and shall be rectangular as shown below.

This amendment also adopts an updated version of the farm machinery symbol also shown below (W11-5a). This symbol may be used as an alternate to the W11-5 symbol currently shown in the MUTCD. The FHWA conducted research on the "Share the Road with Farm Equipment" sign and, based on the results of the study, found that the adopted sign's meaning comprehension rate was 92 percent and its action comprehension rate was 100 percent. The results indicated that almost all drivers were aware of the meaning the sign conveyed and the appropriate action to be taken.

BILLING CODE 4910-22-P



W11-5a

BILLING CODE 4910-22-C

There were 49 comments received of which 38 agreed with the FHWA position, 10 opposed and one was undecided. This amendment does not impose any additional requirements or costs on State and local highway jurisdictions.

Request II-229(C)—General Service Sign for Truck Parking

This amendment to MUTCD section 2D-45 and 2F-33 permits the word message "Truck Parking" to be included on General Motorist Service Signs. Twenty-five of the twenty-eight comments received agreed with this concept and indicated that they would like a symbol sign for truck parking. The FHWA intends to conduct a research evaluation to develop an appropriate symbol for truck parking. In the interim, State and local highway agencies have the option of using the word message "Truck Parking" sign (IN-15) in conjunction with other general motorist service information signs. The word message "Truck Parking" should be placed on a panel below the other general motorist services.

This change does not impose any additional requirements or costs on State and local highway jurisdictions.

Request II-241(C)—Overhead Guide Sign Arrows

This request to improve overhead guide signs by using consistent directional arrows which point upwards and which indicate if the roadway turns left or right is denied. Nineteen of the thirty comments received opposed this

request. Eight commenters agreed and three were undecided.

Upon FHWA's initial observation, this request for change appeared to have the potential of providing more consistent, timely, and useful information to the motorist. However, further review suggests a departure from the established standards would require additional in-depth research and analysis before making such a significant change. A change of this nature has the potential of imposing extreme burden and additional costs to the States. Therefore, the FHWA is denying this request due to the absence of further data to substantiate the change. Experience and history in the use of the arrows indicate no adverse problems.

Request II-248(C)—Adopt-A-Highway Signs

This request to include a standard sign in the MUTCD for "Adopt-A-Highway" programs is denied because of the wide variances in the suggested size of signs, the background and letter colors, the lateral placement, and the frequency of placement for these signs. In many cases, standardizing of these signs would result in adverse local publicity, decreased participation, and would impose unnecessary cost burdens on State and local highway jurisdictions. However, because of the national interest in the Adopt-A-Highway program, the FHWA is modifying the MUTCD section 2D-48 to include general guidance for States to follow when establishing this local program.

The FHWA received 35 comments in response to this request to include standards for the design and placement of "Adopt-A-Highway" signs in the MUTCD. Twenty-two of the comments agreed with the idea of having standards but many of those who agreed were not consistent in their recommended design and placement standards. Thirteen of the thirty-five comments opposed the idea of standards. Fifty percent of those opposing were State highway agencies.

Request III-54(C)—Variation of Line Width and Spacing for Crosswalks

This request to increase the maximum spacing for crosswalks from 24 inches to 48 inches with a maximum spacing not to exceed twice the line width is denied. The FHWA received 29 comments to this docket, of which 18 were in agreement with FHWA's position. Eleven of the eighteen were State highway agencies and two were cities.

The FHWA considers the current maximum longitudinal spacing of 24 inches adequate in that the crossing area is highly visible and recognizable both for the motorist and for the pedestrian. In addition, the FHWA has no record of any operational problems related to the standard 24-inch maximum spacing. Since the FHWA has no statistical data to show that the proposed 48-inch maximum spacing would not adversely affect visibility, we hesitate to change the MUTCD without evaluation data which supports the design safety of the proposed crosswalk configuration. Therefore, this request is denied.

Request III-68(C)—Lane Drop Marking Pattern

This approved amendment to the MUTCD adds lane drop marking patterns to section 3A-6 which describes widths and patterns of longitudinal lines. Since lane drop markings are already described in the fourth paragraph of MUTCD section 3B-11, it is appropriate to include a discussion in section 3A-6. This amendment also changes the term "special marking" as used in section 3B-11 to "lane drop marking." In addition, the lane drop marking is not restricted to interchange ramps but is also available for use with mandatory lane drops on arterial streets and highways. Twenty-four of the twenty-six comments received agreed with this change.

This change does not impose any additional requirements or costs on State and local highway jurisdictions but instead furthers consistency and clarity in traffic control and operations.

Request IV-47(C)—Use of Steady and Flashing Downward Yellow Arrows in Lane Control Signals

This approved amendment to the MUTCD allows lane control signals to be darkened on non-reversible freeway lanes. The FHWA also is denying further experimentation with the flashing and steady DOWNWARD YELLOW ARROW because the Minnesota evaluation report found that the experimental YELLOW ARROW was not understood by motorists. The FHWA received a total of 22 comments in response to this change to the MUTCD. Four of the comments disagreed with FHWA's recommendation to darken signals because it may imply that a signal is not functioning. The FHWA does not believe that this will create a problem since other special types of signals such as ramp metering signals are currently allowed to be darkened when not in use and there have been no identified problems with this practice.

This change does not impose any additional costs on State and local highway jurisdictions but will encourage uniformity of traffic control devices.

Request IV-95(C)—Intersection Control Beacons

This approved amendment to MUTCD section 4E-3, Intersection Control Beacons, involves two separate issues. The first amendment requires a beacon on each intersection approach that is

controlled by a "RED" Intersection Control Beacon. Although the original request for change suggested two beacons, the FHWA believes that in the majority of situations, one beacon would provide adequate visibility. Twenty-one of the twenty-three comments received agreed with the FHWA position. However, section 4E-3 currently allows for the use of a supplemental beacon if needed.

The second issue involves mandatory use of a STOP sign in conjunction with a red intersection control beacon. The FHWA received no adverse comments to this request for change. Therefore, the next to last paragraph in section 4E-3 is modified to require a STOP sign in conjunction with a flashing red intersection control beacon.

This amendment does not impose any significant increase in costs on State and local highway jurisdictions.

Request IV-118(C)—Relocate Section 4C, Signal Warrants

This amendment redesignates the MUTCD section 4C, Warrants for Traffic Signals, as the new section 4B, and the current section 4B, Traffic Control Signals, as the new section 4C. This transposition allows the MUTCD users to determine, firstly, if a signal is warranted and, secondly, to read the description for signal design and application.

The FHWA received a total of 24 comments in response to this change to the MUTCD. All but one of the comments agreed to transposing sections 4B and 4C.

This change does not impose any additional costs on State and local highway jurisdictions.

Request IV-122(C)—Disabled Pedestrians

This request included two items. The first item included in this request was the concept of allowing a second signal button that permits additional time for slow walking pedestrians to cross the roadway. There is nothing currently in the MUTCD to prevent highway agencies from extending the pedestrian crossing interval in areas of demonstrated need. Therefore this request is denied. Twenty-one of the twenty-seven comments received were opposed to this concept of a second signal button. Some of the other major concerns expressed with the installation of the second button are the following:

1. The MUTCD already allows a highway agency to establish pedestrian

signal timing to accommodate the needs of the user at the specific location.

2. The second button would just be another button for all pedestrians to push and then the signal would likely be using the longer timing every cycle.

3. Intermittent, longer, pedestrian clearance intervals may jeopardize coordination flow.

The second request was to allow the installation of pedestrian detectors that are easily activated for pedestrians with physical disabilities. There were no adverse comments addressing this issue. The FHWA adopts this recommendation and is including it as an option in MUTCD section 4B-29.

This change which allows the option of installing easily activated pedestrian detectors for persons with physical disabilities does not impose any additional costs on State and local highway jurisdictions.

Request IV-124(C)—Educational Plaque for Pedestrian Signals

This amendment will allow the use of an educational plaque that can be used in conjunction with pedestrian signal indications. The FHWA is adopting the use of this optional educational plaque where both symbol-type and word message pedestrian signal indications are used.

A total of 27 of the 30 comments received agreed with the use of the educational plaque. The wording of the plaque shown in the notice of proposed rulemaking has been slightly modified to reflect the following comments:

1. After the wording DONT START use FINISH CROSSING IF STARTED.

2. Pedestrians should be aware of all vehicles, not just turning cars.

3. The highlighted flashing hand symbol is more easily understood.

4. All intersections do not have marked crosswalks.

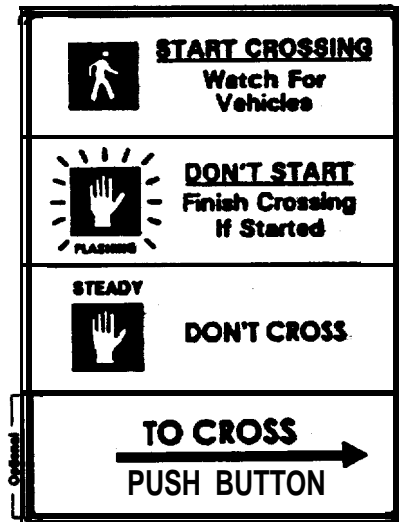
5. Eliminate the wording WAIT ON CURB because all intersections do not have curbs.

6. Many intersections in the United States do not have push buttons for operating signals and, therefore, the bottom section of the sign with the caption "TO CROSS. . . PUSH BUTTON" should be made optional.

7. Since both symbols and word messages are allowed for pedestrian signal indications, two plaque designs are necessary.

This change will not impose any additional costs on States and local jurisdictions.

BILLING CODE 4910-22-P



R10-3b
225 mm x 300 mm
(9" x 12")

BILLING CODE 4910-22-C

Note: Word message (R10-3c) may be used in place of WALK/DON'T WALK symbol.

Request VI-88(C)—Emergency Flashers

This amendment to the MUTCD allows the use of vehicle hazard warning signals to supplement rotating dome or strobe lights as flashing identification beacons.

The intent of the original request was to allow the use of emergency flashers (vehicle hazard warning signals) or rotating domes and strobe lights on maintenance vehicles.

In the notice of proposed rulemaking, the FHWA originally proposed to allow the use of emergency flashers on maintenance vehicles during normal daytime maintenance operations without addressing the issue of rotating domes and strobe lights.

From a review of the comments, the intent of the amendment as originally stated in the NPRM was evidently not clear. The FHWA received a total of 26 comments in response to this change to the MUTCD. Eleven comments agreed, eight opposed and seven suggested use as a supplement. Some respondents viewed it as allowing vehicle hazard warning signals to be used in lieu of rotating domes and strobe lights. Other commenters viewed the amendment as allowing them to be used in addition to rotating domes and strobe lights.

The FHWA believes it may bolster motorists' safety if the difference in what the motorist expects between

seeing a disabled vehicle or from seeing a work area is preserved. Therefore, the FHWA adopts the optional use of vehicular hazard warning signals as a supplement to rotating domes or strobe lights and MUTCD section 6F-7c is changed accordingly.

This change does not impose any additional costs on State and local jurisdictions but encourages uniformity of traffic control devices.

Request VII-2(C)—School Bus Stop Ahead Symbol Sign

This request to adopt the School Bus Stop Ahead symbol sign submitted by the North Carolina Department of Transportation is denied. This symbol did not perform well in the FHWA research study. In addition, 23 of the 30 comments in response to this request were either opposed or indicated that further study is needed to define a more appropriate symbol.

This request is denied but FHWA will conduct further research and will consider other alternates for a symbol including those submitted by respondents.

Request VIII-28(C)—Maximum Flash Rate at Railroad Highway Grade Crossings

This approved amendment increases the maximum flash rate from 55 to 65 flashes per minute. This will make the AAR Signal Manual of Recommended Practices, the Railroad Highway Grade Crossing Handbook, and the MUTCD all

compatible with one another. In addition, this amendment is compatible with research and standard practices.

All 27 of the comments received were in support of this amendment. This change imposes no additional costs on State and local highway jurisdictions but will encourage uniformity of traffic control devices.

Request VIII-29(C)—Symbol for Railroad Advance Warning Sign

The request to replace the standard round Railroad Advance Warning Sign (W10-1) with a diamond-shaped sign is denied. The W10-1 sign is intentionally unique from other warning signs and is intended to convey to motorists the special attention they need to apply when approaching a railroad highway grade crossing.

All but one of the twenty-nine comments supported the FHWA position.

Request VIII-30(C)—Symbol for Number of Tracks Sign

The request to replace the word message "Tracks" in the standard Number of Tracks Sign (R15-2) with a symbol showing railroad tracks is denied.

Twenty-six of the twenty-seven comments received were in support of denying this amendment because the current sign is well understood and the proposed sign offered no proven benefit.

Request VIII-36(C)—Signs and Markings for No Lane Change Zones at Railroad Crossings

The request to require pavement markings at railroad-highway grade crossings to prohibit vehicle lane changing on the tracks when there are two or more lanes in one direction is denied. All 26 comments received supported the FHWA recommendation that this request not be adopted.

No-passing markings continue to be required on Z-lane, 2-way roadways approaching railroad-highway grade crossings as discussed in Section 8B-4 of the MUTCD. The MUTCD already contains provisions for pavement markings and signing where an engineering study determines a need to prohibit lane change movements in the vicinity of multi-lane approaches to railroad highway grade crossings.

Request VIII-37(C)—Fast Train Signs

This request to develop a warning sign and warrants for its use on approaches to high speed (80 to 110 mph) rail crossings that may or may not be equipped with automatic warning devices is deferred. Warrants are a set of criteria that can be used to define the relative need for and appropriateness of traffic signs. Of the 27 comments received for this request, 14 supported and 13 opposed its adoption. There was little consensus on the message to be used on the sign although several of the respondents suggested a succinct message, such as "HIGH SPEED TRAINS" or "FAST TRAIN." Several of those supporting this request suggested that it be republished when more specific information on the size, shape, and warrants for the sign are developed.

The Railroad-Highway Grade Crossing Technical Committee of the NCUTCD is currently developing a proposal on the shape, message, and warrants for use of this sign. The FHWA believes that the information in this NCUTCD proposal will provide more substantive data upon which to evaluate this request. This request will be published with additional information in a future notice of proposed rulemaking which will provide another opportunity for the public to review and comment.

Request VIII-38(C)—Supplementary Plaques on STOP and YIELD Signs Used at Railroad-Highway Grade Crossings

The request to permit the use of a supplementary plaque with STOP or YIELD Signs at Railroad-Highway Grade Crossings to indicate the number of tracks or to WATCH FOR SECOND TRAIN is deferred. The proposal to

include the number of tracks sign under the STOP or YIELD sign, received 27 comments of which 17 supported, 8 opposed, and 2 were undecided. A number of those supporting this proposal requested that the number of tracks sign be black and yellow rather than red and white as proposed.

The proposal to include the supplemental plaque message "WATCH FOR SECOND TRAIN," received 27 comments of which 9 supported, 16 opposed, and 2 were undecided. Many of those opposed expressed concern that such a long message would detract from the purpose of the STOP or YIELD sign.

The Railroad-Highway Grade Crossing Technical Committee of the NCUTCD is currently evaluating this proposal concerning the color and message length of this sign. The FHWA believes that the information provided in this NCUTCD proposal will provide more substantive data upon which to evaluate this request. This request will be published with this additional information in a future notice of proposed rulemaking which will provide another opportunity for the public to review and comment.

Request VIII-39(C)—Warrants for Warning Devices at Railroad-Highway Grade Crossings With High-Speed Train Operations

This request to include recommended warrants for use of warning devices at railroad crossings hosting high speed trains (80 to 110 mph) is deferred. There were 26 comments received of which 23 supported, 2 opposed and 1 was undecided. The two that opposed adoption felt that warrants for warning devices at railroad-highway grade crossings should be the same whether or not high-speed trains were involved. None of the 26 comments suggested specific warrants to be used. Until specific warrants can be developed this request is deferred.

The Railroad-Highway Grade Crossing Technical Committee of the NCUTCD is currently addressing this issue of warrants for warning devices. The FHWA believes that the information developed by the NCUTCD will provide more substantive data upon which to evaluate this request. This request will be published with proposed warrants in a future notice of proposed rulemaking which will provide another opportunity for the public to review and comment.

Request VIII-40(C)—Placement of the Crossing Identification Number Tag

The request to include in Part VIII standards for the design and placement of the U.S. DOT/AAR National Rail-Highway Crossing Inventory number plate is deferred. There were 23

comments received of which 18 supported, 3 opposed, and 2 were undecided. The 3 that opposed this request expressed the opinion that this number plate is not a traffic control device and does not belong in the MUTCD.

The FHWA number plate can provide valuable information to identify a specific crossing to authorities in an emergency situation (i.e. stalled vehicle on tracks), and the number should be displayed in a prominent and consistent location at all railroad-highway grade crossings. Since this identification plate is displayed on railroad right-of-way, its location should be agreed to by the railroads, FRA, and the FHWA. Until the placement issue is resolved this request is deferred. This request will be published with proposed location of the number plate in a future notice of proposed rulemaking which will provide another opportunity for the public to review and comment.

Request IX-6(I)—Marking Hazardous Bicycle Conditions

The language in MUTCD section 9C-6 is modified to clarify that object markers as discussed in this section, not only apply to bicycle trails which are exclusively for bicycles but to any roadway open to bicycle travel. Twenty-one of the twenty-three comments agreed with this change. This change is editorial and does not impose any additional costs to the State and local jurisdictions.

Rulemaking Analyses and Notices, Executive Order 12866 (Regulatory Planning and Review) and DOT Regulatory Policies and Procedures

The FHWA has determined that this action is not a significant regulatory action within the meaning of Executive Order 12866 or significant within the meaning of Department of Transportation regulatory policies and procedures. It is anticipated that the economic impact of this rulemaking would be minimal. Most of the changes in this notice provide additional guidance, clarification, and optional applications for traffic control devices. The FHWA expects that application uniformity will improve at little additional expense to public agencies or the motoring public. Therefore, a full regulatory evaluation is not required.

Regulatory Flexibility Act

In compliance with the Regulatory Flexibility Act (Pub. L. 96-354, 5 U.S.C. 601-612), the FHWA has evaluated the effects of this proposed action on small entities, including small governments. This final rule adds some alternative

traffic control devices and only a very limited number of new or changed requirements. Most of the changes are expanded guidance and clarification information. Based on this evaluation, the FHWA hereby certifies that this action would not have a significant economic impact on a substantial number of small entities.

Executive Order 12812 (Federalism Assessment)

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612, and it has been determined that this action would not have sufficient federalism implications to warrant the preparation of a federalism assessment. The MUTCD is incorporated by reference in 23 CFR part 655, subpart F, which requires that changes to the national standards issued by the FHWA shall be adopted by the States or other Federal agencies within two years of issuance. These amendments are in keeping with the Secretary of Transportation's authority under 23 U.S.C. 109(d), 315, and 402(a) to promulgate uniform guidelines to promote the safe and efficient use of the highway. To the extent that these amendments override any existing State requirements regarding traffic control devices, they do so in the interests of national uniformity.

Executive Order 12372 (Intergovernmental Review)

Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.

Paperwork Reduction Act

This action does not contain a collection of information requirement for purposes of the Paperwork Reduction Act of 1980. 44 U.S.C. 3501 *et seq.*

National Environmental Policy Act

The agency has analyzed this action for the purpose of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) and has determined that this action would not have any effect on the quality of the environment.

Regulation Identification Number

A regulation identification number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross reference this action with the Unified Agenda.

List of Subjects in 23 CFR 655

Design standards, Grant programs—transportation, Highways and roads, Incorporation by reference, Signs, and Traffic regulations.

The FHWA hereby amends chapter I of title 23, Code of Federal Regulations, part 655 as set forth below.

PART 655—TRAFFIC OPERATIONS

1. The authority citation for part 655 continues to read as follows:

Authority: 23 U.S.C. 101(a), 104, 105, 109(d), 114(a), 135, 217, 307, 315, and 402(a); 23 CFR 1.32 and; 49 CFR 1.48(b).

Subpart F—Traffic Control Devices on Federal-Aid and Other Streets and Highways [Amended]

2. In § 655.601, paragraph (a) is revised to read as follows:

§ 655.601 Purpose.

(a) Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), FHWA, 1988, including revision No. 1 dated January 17, 1990, Revision No. 2 dated March 17, 1992, Revision No. 3 dated September 3, 1993, Errata No. 1 to the 1988 MUTCD Revision 3, dated November 1994, Revision No. 4 dated November 1, 1994, and Revision No. 5 dated December 24, 1996. This publication is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 and is on file at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. The 1988 MUTCD, including Revision No. 3 dated September 3, 1993, may be purchased from the Superintendent of Documents, U.S. Government Printing Office (GPO), P.O. Box 371954, Pittsburgh, PA 15250-7954, Stock No. 650-001-00001-0. The amendments to the MUTCD titled, "1988 MUTCD Revision No. 1," dated January 17, 1990, "1988 MUTCD Revision No. 2" dated March 17, 1992, "1988 MUTCD Revision No. 3," dated September 3, 1993, "1988 MUTCD, Errata No. 1 to Revision No. 3," dated November 1994, "1988 MUTCD Revision No. 4," dated November 1, 1994, and "1988 MUTCD Revision No. 5," dated December 24, 1996 are available from the Federal Highway Administration, Office of Highway Safety, HHS-10,400 Seventh Street, SW., Washington, DC 20590. These documents are available for inspection and copying as prescribed in 49 CFR part 7, appendix D.

Issued on: December 24, 1996.

Rodney E. Slater,
Federal Highway Administrator.
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