

Part I. GENERAL PROVISIONS

1A-1 Requirements of Traffic Control Devices

This Manual sets forth the basic principles that govern the design and usage of traffic control devices. These principles appear throughout the text in discussions of the devices to which they apply, and it is important that they be given primary consideration in the selection and application of each device.

The Manual presents traffic control device standards for all streets and highways regardless of type or class or the governmental agency having jurisdiction. Where a device is intended for limited application only, or for a specific system, the text specifies the restrictions on its use.

To be effective, a traffic control device should meet five basic requirements. They are:

1. Fulfill a need.
2. Command attention.
3. Convey a clear, simple meaning.
4. Command respect of road users.
5. Give adequate time for proper response.

In the case of regulatory devices, the actions required of motorists and pedestrians should be specified by State statute, or by local ordinance or resolution which are consistent with national standards. Uniformity of meaning is vital to effective traffic control devices. Meanings ascribed to devices in this Manual are in general accord with the Uniform Vehicle Code of the National Committee on Uniform Traffic Laws and Ordinances, which is the nationally recognized standard in this area.

Five basic considerations are employed to insure that these requirements are met. They are: design, placement, operation, maintenance, and uniformity.

Design of the device should assure that such features as size, contrast, colors, shape, composition, and lighting or reflectorization are combined to draw attention to the device; that shape, size, colors, and simplicity of message combine to produce a clear meaning; that legibility and size combine with placement to permit adequate time for response; and that uniformity, reasonableness of the regulation, size and legibility combine to command respect. In the design of a

device, minor modifications of the specified design elements may be necessary under certain conditions, provided that the essential appearance characteristics are met.

Placement of the device should assure that it is within the cone of vision of the user so that it will command attention; that it is positioned with respect to the point, object, or situation to which it applies to aid in conveying the proper meaning; and that its location, combined with suitable legibility, is such that a driver traveling at normal speed has adequate time to make the proper response.

Operation or application should assure that appropriate devices and related equipment be installed to meet the traffic requirements at a given location. Furthermore, the device must be operated and placed in a uniform and consistent manner to assure, to the extent possible, that the motorist can be expected to properly respond to the device, based on his previous exposure to similar traffic control situations.

Maintenance of devices should be to high standards to assure that legibility is retained, that the device is visible, and that it is removed if no longer needed. Clean, legible, properly mounted devices in good working condition command the respect of motorists and pedestrians. In addition to physical maintenance, functional maintenance is required to adjust needed traffic control devices to current conditions and to remove unnecessary traffic control devices. The fact that a device is in good physical condition should not be a basis for deferring needed replacement or change. Furthermore, carelessly executed maintenance can destroy the value of a group of devices by throwing them out of balance. For example, replacement of a sign in a group or series by one that is disproportionately large may tend to deprecate others in the vicinity.

Uniformity of traffic control devices simplifies the task of the road user because it aids in recognition and understanding. It aids road users, police officers, and traffic courts by giving everyone the same interpretation. It aids public highway and traffic officials through economy in manufacture, installation, maintenance and administration.

Simply stated, uniformity means treating similar situations in the same way. The use of uniform traffic control devices does not, in itself, constitute uniformity. A standard device used where it is not appropriate is as objectionable as a nonstandard device; in fact, this may be worse, in that such misuse may result in disrespect at those locations where the device is needed.

1A-2 Responsibility for Traffic Control Devices

The responsibility for traffic control devices rests with a multitude of governmental jurisdictions. In virtually all States, traffic control

devices placed and maintained by State and local officials are required by statute to conform to a State Manual which must be in substantial conformance with this Manual. Many Federal agencies have regulations requiring standards in conformance with this Manual for their control device applications.

The Uniform Vehicle Code has the following provision in Section 15-104 for the adoption of a uniform manual:

"The (State Highway Commission) shall adopt a manual and specifications for a uniform system of traffic-control devices consistent with the provisions of this chapter for use upon highways within this State. Such uniform system shall correlate with and so far as possible conform to the system set forth in the most recent edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, and other standards issued or endorsed by the Federal Highway Administrator."

Under authority granted by Congress in 1966, the Secretary of Transportation has indicated that traffic control devices on all streets and highways in each State should conform with standards issued or endorsed by the Federal Highway Administrator. In addition, since 1944, Congress has provided that signs, signals and markings installed on highways constructed with Federal-aid funds shall be subject to approval of the State highway department with the concurrence of the Secretary of Transportation who is directed by law to concur only in installations that promote safe, efficient highway use.

1A-3 Engineering Study Required

The decision to use a particular device at a particular location should be made on the basis of an engineering study of the location. Thus, while this Manual provides standards for design and application of traffic control devices, the Manual is not a substitute for engineering judgment. It is the intent that the provisions of this Manual be standards for traffic control devices installation, but not a legal requirement for installation.

Qualified engineers are needed to exercise the engineering judgment inherent in the selection of traffic control devices, just as they are needed to locate and design the roads and streets which the devices complement. Jurisdictions with responsibility for traffic control, that do not have qualified engineers on their staffs, should seek assistance from the State highway department, their county, a nearby large city, or a traffic consultant.

1A-4 Meanings of "Shall," "Should" and "May"

In the Manual sections dealing with the design and application of traffic control devices, the words "shall," "should" and "may" are

used to describe specific conditions concerning these devices. To clarify the meanings intended in this Manual by the use of these words, the following definitions apply:

1. **SHALL**—A *mandatory* condition. Where certain requirements in the design or application of the device are described with the “shall” stipulation, it is mandatory when an installation is made that these requirements be met.

2. **SHOULD**—An *advisory* condition. Where the word “should” is used, it is considered to be advisable usage, recommended but not mandatory.

3. **MAY**—A *permissive* condition. No requirement for design or application is intended.

1A-5 Developing New Standards and Interpretation and Revision of Existing Standards

Advances in technology will produce changes in the highway, the motor vehicle, and in driver proficiency and portions of the system of control devices in this Manual will gradually become obsolete. In addition, unique situations often arise for device applications which may require interpretation or clarification of this Manual. It is important to have a procedure for recognizing these developments and for introducing new ideas and modifications into the system.

The following procedures will generally apply to the handling of interpretations, experimentation and changes to the MUTCD:

1. The request for any clarification, permission to experiment or change in the Manual should be addressed to one of the appropriate organizations of the National Joint Committee who will review the request and advise the Federal Highway Administration in accordance with the procedures and policies of the respective organizations. These organizations include the American Association of State Highway Officials (AASHO), the Institute of Traffic Engineers (ITE), the National Association of Counties, (NAC), the National Committee on Uniform Traffic Laws and Ordinances (NCUTLO), and the National League of Cities (NLC). The action on the request for interpretation, on the approval of an alternate or for experimentation will be by the Federal Highway Administrator. In the event that a review in one of these organizations is not feasible, the request may be addressed directly to the Federal Highway Administrator, and marked for the attention of the Director, Office of Traffic Operations, who will request a recommendation from the appropriate organization of the Joint Committee before final action is taken.

2. Requests for the use of new devices or methods should contain information on why a device or procedure recommended in the MUTCD could not be used; advantages of using the proposed procedure or device; any factual supporting data showing why the proposed device is considered to be the solution and/or study procedures to be used for field tests of the proposed device.

3. The organizations of the National Joint Committee will be responsible for dissemination of official rulings to their respective members.

4. Rulings on requests will be given as:

(a) *Interpretations*—this would generally be a clarification of intended applications of Manual requirements or determinations of applications of Manual requirements for specific situations.

(b) *Approval as an alternate*—this would be permission to use a new device or modification, even though the Manual prescribes a device for the same purpose. Generally, it would be expected that the proposed alternate would offer advantages over the device prescribed in the Manual.

(c) *Approval for experimentation*—this would be permission to use, for test and evaluation, an unproven device or modification which appeared to be a sound idea. The type of information to be gathered during the test and evaluation of the device would be stated as part of the request and the gathering of these data would be a conditional part of the approval.

5. The Federal Highway Administration will maintain official files of interpretations and other actions taken on the development of improved standards.

1A-6 Relation to Other Documents

Two publications by the National Committee on Uniform Traffic Laws and Ordinances are specifically designed to provide the content and language of legislation needed to give regulatory devices the same meaning in all jurisdictions. These are the Uniform Vehicle Code (chapter 11, Rules of the Road) for States, and the Model Traffic Ordinance for municipalities. Both the Code and the Ordinance require the placing of signs or other traffic control devices to make some of their provisions effective, and both define the legal meaning of certain devices. The Code directs the State authorities to adopt a manual for a uniform system of traffic control devices, and the Ordinance requires devices under municipal jurisdiction to

conform thereto. The adoption of appropriate legislation is an essential step toward uniformity.

The standards in the *Manual for Signing and Pavement Marking of the National System of Interstate and Defense Highways*, published by the American Association of State Highway Officials, have been incorporated herein for freeway application, providing one document for all streets and highways.

Other documents, to the extent they are incorporated by specific reference, are made part of this Manual:

- Standard Alphabets—Federal Highway Administration, 1966
- Standard Color Charts—Federal Highway Administration, 1970
- Standard Highway Signs—Federal Highway Administration, 1970
- Institute of Traffic Engineers, Adjustable Face Vehicle Traffic Control Signal Head Standards, 1970
- Association of American Railroads, Bulletin 6, Railroad Highway Grade Crossing Protection, 1966
- Institute of Traffic Engineers, Adjustable Face Pedestrian Signal Head Standard, 1963

Other documents that are useful sources of information with respect to utilization of these standards include:

- Traffic Engineering Handbook—Institute of Traffic Engineers
- Highway Capacity Manual—Highway Research Board
- A Policy on Geometric Design of Rural Highways—American Association of State Highway Officials
- A Policy on Arterial Highways in Urban Areas—American Association of State Highway Officials
- Manual of Traffic Engineering Studies—Institute of Traffic Engineers
- Volume 12, Highway Safety Program Manual, Highway Design Construction and Maintenance, Federal Highway Administration
- Volume 13, Highway Safety Program Manual, Traffic Control Devices, Federal Highway Administration

1A-7 Color Code

The following color code establishes general meanings for eight colors in a total of twelve colors that have been identified as being appropriate for use in conveying traffic control information. Central values and tolerance limits for each color are available.¹

The four colors for which no meaning has been assigned are being reserved for future applications. The meanings described in this

¹ Available from the Federal Highway Administration, Washington, D.C. 20591.

Section are of a general nature. More specific assignments of colors are given in the individual Parts of this Manual relating to each class of devices.

Color Code:

RED—Stop or prohibition.

GREEN—Indicated movements permitted, direction guidance.

BLUE—Motorist services guidance.

YELLOW—General warning.

BLACK—Regulation.

WHITE—Regulation.

ORANGE—Construction and maintenance warning.

PURPLE—Unassigned.

BROWN—Public recreation and scenic guidance.

STRONG YELLOW-GREEN—Unassigned.

LIGHT BLUE—Unassigned.

CORAL—Unassigned.

