

QUALITY STANDARDS

for

Temporary Traffic Control Devices



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Introduction

Temporary traffic control devices are a necessary part of highway work zones. These devices are used to warn motorists of hazards, advise them of the proper path through the work area, delineate areas where they may not operate, and to separate them from workers and opposing traffic.

There are many factors that ensure the success of these functions; the performance and condition of each temporary traffic control device are two such factors. Whenever worn or damaged devices appear in a work zone, the general quality of the work zone deteriorates. This situation may reduce the level of safety provided to the workers, pedestrians, and traveling public due to the road users' loss of confidence in and compliance with the devices.

It is with this possibility in mind and to provide the means for complying with MUTCD Sec. 1A-05., MoDOT established the *Quality Standards for Temporary Traffic Control Devices* handbook. The quality standards contained herein are applicable to all temporary traffic control devices (e.g., impact attenuators, truck mounted attenuators, signs, channelizers, barricades, warning lights, changeable message signs, flashing arrow panels, work zone traffic signals, lighting units, temporary pavement marking, temporary traffic barrier, etc.) deployed on the state highway system. The end result of its effective application is a benefit to the well being of those who work in or navigate through work zones located on state highway right of way.

Quality Requirements

Temporary traffic control devices shall be installed and maintained in an acceptable condition. Unless specified otherwise, this requirement does not mandate the use of 'new' devices. However, it does necessitate the use of functional devices. Unacceptable devices shall be replaced or corrected in accordance with the contract documents or, in the absence of a contract, as directed by the department's representative.

Quality Standards

The quality standards set forth in this publication should be used by those responsible for the installation, operation, maintenance, and inspection of temporary traffic control devices as a guide to determine if those devices are acceptable for use on the state highway system.

These standards should be applied at several stages: prior to delivery to the work zone, during initial setup, and routinely during the course of work. Such scrutiny will ensure the effectiveness of the temporary traffic control devices throughout the life of the work zone.

General

All temporary traffic control devices shall be:

- In conformance with the requirements of the Manual on Uniform Traffic Control Devices (MUTCD) and MoDOT Standards.
- Installed and maintained at locations and in orientations that maximize safety and minimize disruption to traffic flow.
- Aligned with the road user's line of vision.

- Positioned as to not obstruct other applicable traffic control devices.
- Free of any appreciable dents, holes, deformations, abrasions, tears, marks, stains, residues, fading, or other deficiencies that affect the operational performance of a device; or, are cause for failure of a device to conform with the requirements of the MUTCD or MoDOT standards to be considered crashworthy.
- Properly covered, turned, stowed, or removed when not in use.

Barricades, Channelizing Devices, and Signs

These devices shall be:

- Reasonably plumb to the pavement.
- Safely and neatly ballasted, as needed.
- Clearly visible and legible/distinguishable to approaching traffic during the day and, if applicable, at night.

Note: Refer to page 5 for sign covering practices and pages 6 and 7 for examples of unacceptable barricades, channelizing devices and signs.

Warning Lights

These devices shall be:

- Visible from a distance of 3,000 feet on a clear night for Type A (low-intensity, flashing) and Type C (low-intensity, steady-burn) and from a distance of 1,000 feet on a sunny day without the sun directly on or behind the devices for Type B (high-intensity, flashing) warning lights.
- Illuminated at appropriate times.
- Securely affixed to the host.

Flashing Arrow Panels

These devices shall be/have:

- Functioning in the appropriate mode.
- No more than one lamp, of those to be energized, out in stem and no lamps out in the arrow head(s) when in the arrow (single- or double-headed) and no lamps out when in the caution (four corners) modes.
- Appropriately dimmed at night

Note: Any lamp drawing less than 60% of its original power draw or producing less than 60% of its original output is considered out.

Changeable Message Signs

These devices shall be/have:

- Displaying the prescribed message at an appropriate cycle.
- Clearly legible to approaching traffic with minimal display abnormalities.
- Appropriately dimmed at night.

Temporary Pavement Markings

These devices shall be:

- In place at applicable times.
- Reasonably aligned longitudinally.
- Clearly visible to approaching traffic during the day and night.
- Completely removed when no longer applicable.

Sign Coverings

These items shall be:

- Sized to match the sign to be covered
- Positioned to cover most of the sign face.
- Designed to prevent “bleed through” of the covered sign and damage to the permanent sign installation.
- Constructed with non-metallic handles.
- Adequately secured to the host sign assembly.

The following are examples of acceptable sign covering practices.



Unacceptable Standards

Shown below are examples of unacceptable temporary traffic control devices. These examples apply to all such devices.



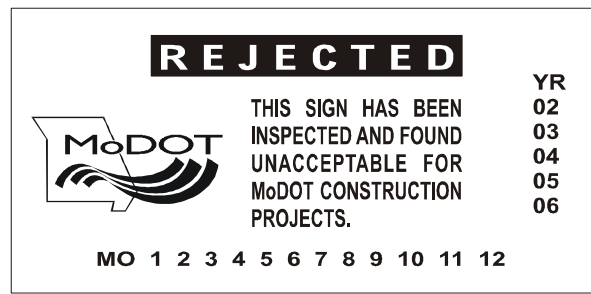
Unacceptable Standards

Shown below are examples of unacceptable temporary traffic control devices. These examples apply to all such devices.



Rejection Stickers

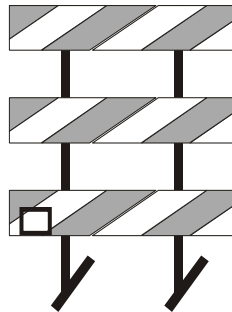
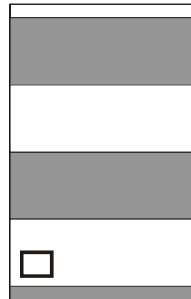
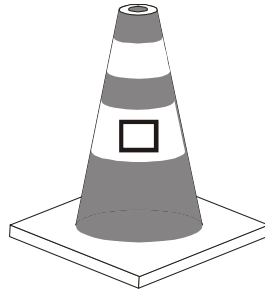
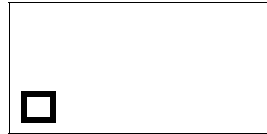
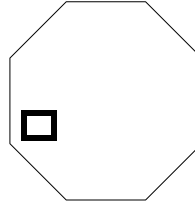
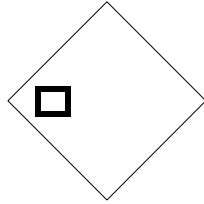
REJECTED stickers (shown below), with appropriate month and year designated, may be used by MoDOT personnel to identify unacceptable temporary traffic control devices. For barricades, channelizing devices, and signs, the sticker should be located on the front-, left-, and lower-most retroreflective area on the device. For other devices, the sticker should be located in a conspicuous place on the device.



R11-52 REJECTED Decal
(Order No.: MoDOT 46)

Rejection Stickers

Shown below are examples of rejection sticker locations.





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