



MINNESOTA DEPARTMENT OF TRANSPORTATION
Engineering Services Division
Technical Memorandum No. 06-09-T-04
April 1, 2006

To: Distribution 57, 612, 618, 650

From: Richard A. Stehr
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Subject: Crashworthy Requirements for Work Zone Devices on Low-Speed Trunk Highways

Expiration

This is a new Technical Memorandum. This Technical Memorandum shall remain in force until April 1, 2011, or when this information is included in the Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD).

Implementation

The provisions contained in this Technical Memorandum shall be implemented immediately for all Construction and Maintenance Operations.

Scope

The provisions of this technical memorandum apply to MN MUTCD requirements and compliance dates for rigid temporary (work zone) signs, barricades and channelizing devices for all low-speed (0-40 mph) Trunk Highways.

Introduction

In 1998 the Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO) Committee met to discuss compliance dates for National Cooperative Highway Research Program Report 350 (NCHRP 350) hardware for use on the National Highway System (NHS). The Committee stated that all existing category 2 work zone devices (signs, sign stands and barricades) that were in use as of the October, 2000 deadline could remain in use until the end of their normal service lives.

When the 2000 Federal MUTCD and the 2001 MN MUTCD were issued, the language in Part 6 - Temporary Traffic Control simply stated that "All sign supports shall be crashworthy." The implication was that this pertained only to NHS roads. There was no specific timetable formally announced.

In the 2003 Federal MUTCD and the 2005 MN MUTCD, a specific compliance date of January 17, 2005 was announced. Additionally, a definition for the word "crashworthy" was included. Crashworthy is now defined as "a characteristic of a roadside appurtenance that has been successfully crash tested in accordance with a national standard such as the National Cooperative Highway Research Program Report 350, 'Recommended Procedures for the Safety Performance of Highway Features'." Since most local road authorities were not adequately prepared for this compliance period due to the inclusion of the definition of the word "crashworthy", Technical Memorandum No. 06-06-T-03, dated January 30, 2006, extended this compliance date to January 17, 2010.

Local road authorities perform many operations on low-speed (0-40 mph) Trunk Highways. Existing temporary traffic control devices used by the local road authorities may not be crashworthy as now defined. Since they have until January 17, 2010 to have crashworthy devices, it has become necessary to modify the compliance date in the MN MUTCD allowing the use of existing devices on low-speed Trunk Highways until January 17, 2010.

Discussions with the FHWA and the Minnesota Committee for the Manual on Uniform Traffic Control Devices have led to an extension of this compliance date.

Purpose

The purpose of this technical memorandum is to establish a MN MUTCD compliance date extension for crashworthy requirements on all low-speed (0-40 mph) streets and highways with respect to temporary (work zone) signs, barricades and channelizing devices from January 17, 2005 to January 17, 2010.

Guidelines

A current list of devices which have met NCHRP Report 350 crash test guidelines can be found on the following Mn/DOT website: <http://www.dot.state.mn.us/trafficeng/products/index.html#350>
Scroll down to the section titled NCHRP 350 Tested Devices.

Additional information on crashworthy devices may be found on the following FHWA website:
http://safety.fhwa.dot.gov/roadway_dept/road hardware/wzd.htm

Questions

For information on the technical contents of this memorandum, please contact **Tom Peters, Standards and Tort Claims Engineer at (651)634-5444** or **Ken Schroepfer, Traffic Standards Specialist at (651)634-5451**. Any questions regarding the publication and distribution of this Technical Memorandum should be referred to Sophia Wicklund, Design Standards Unit at 651-296-3190, or Alex Chernyaev, Assistant Design Standards Engineer 651-297-4842. All active Memoranda and a list of historical Technical Memoranda can be viewed at <http://www.dot.state.mn.us/tecsup/tmemo/index.html>