

## How to Use the Manual on Uniform Traffic Control Devices and Publication 212

As presented in the Tech Sheet 126, there are several new references that apply to traffic control devices in Pennsylvania: the Manual on Uniform Traffic Control Devices (MUTCD), PennDOT Publication 212, and PennDOT Publication 213. This tech sheet provides an overview of how to use the MUTCD and Publication 212. Publication 213 will be discussed in a future tech sheet.

The best method for learning to use these references is to practice. The following is an example of how the manuals can be used.

**Example:** I want to establish a speed limit on my township roadway.

### Step 1: Check and review the MUTCD

On the MUTCD Web site, use the search engine to find the section on Speed Limit signs, or go directly to the appropriate section.

If using a hard copy of the MUTCD, use the Table of Contents to find the appropriate section.

In either case, the issue is signing, so Section 2, Signs, Part B, Regulatory Signs, is the correct section.



### Step 2: Review the information in the MUTCD

Note the use of the word “shall” indicating a standard condition in the bold-type paragraph, and the use of the word “should” in the paragraph under “Guidance” indicating an action or condition that is to be implemented in most cases.

U.S. Department of Transportation  
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Manual on Uniform Traffic Control Devices (MUTCD)

Knowledge  
 2003 Edition with Revision No. 1 Incorporated, dated November 2004 (HTML)

Disclaimer: The MUTCD HTML format is accessible to individuals with disabilities, per Section 508 of the Rehabilitation Act. While every effort has been made to assure complete consistency between the PDF and HTML files posted on the MUTCD website, the PDF files constitute the official version of the MUTCD. The PDF files take precedence over any potentially conflicting MUTCD text or figures that may occur in the HTML files.

### Section 2B.13 Speed Limit Sign (R2-1)

#### Standard:

After an engineering study has been made in accordance with established traffic engineering practices, the Speed Limit (R2-1) sign (see Figure 2B-1) shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency. The speed limits shown shall be in multiples of 10 km/h or 5 mph.

#### Guidance:

At least once every 5 years, States and local agencies should reevaluate non-statutory speed limits on segments of their roadways that have undergone a significant change in roadway characteristics or surrounding land use since the last review.

No more than three speed limits should be displayed on any one Speed Limit sign or assembly.

When a speed limit is to be posted, it should be within 10 km/h or 5 mph of the 85th-percentile speed of free-flowing traffic.

**\*Note that this is NOT the entire Section 2B.13\***

### § 212.108. Speed limits.

(a) *General.* This section applies to maximum speed limits established according to 75 Pa.C.S. §§ 3362 and 3363 (relating to maximum speed limits; and alteration of maximum limits). Engineering and traffic studies are not required for statutory speed limits, but documentation should be on file for urban districts and residence districts to show that the requirements defined in the Vehicle Code are satisfied.

(b) *Engineering and traffic studies.* Speed limits established in accordance with 75 Pa.C.S. § 3363 may be established in multiples of 5 miles per hour up to the maximum lawful speed. The speed limit should be within 5 miles per hour of the average 85th percentile speed or the safe-running speed on the section of highway, except the speed limit may be reduced up to 10 miles per hour below either of these values if one or more of the following conditions are satisfied:

- (1) A major portion of the highway has insufficient stopping sight distance if traveling at the 85th percentile speed or the safe-running speed.
- (2) The available corner sight distance on side roads is less than the necessary stopping sight distance values for through vehicles.
- (3) The majority of crashes are related to excessive speed and the crash rate during a minimum 12-month period is greater than the applicable rate in the most recent high-crash rate or high-crash severity rate table included in the appendix of Official Traffic-Control Devices (Department Publication 212). Crashes related to excessive speed include those crashes with causation factors of driving too fast for conditions, turning without clearance or failing to yield right-of-way.

**\*Note that this is NOT the entire Section 212.108\***

### Step 3: Check Publication 212

After reviewing the MUTCD, use Publication 212 to look for any supplemental information pertinent to Pennsylvania.

The Table of Contents for Publication 212 shows speed limit signs listed in Subchapter B, Signs, subsection 212.108, Speed Limits.

It is important to note that both the MUTCD and Publication 212, as well as Title 75 (The Vehicle Code) require an engineering and traffic study be conducted if the speed limit is not covered under a statutory restriction. Criteria and procedures for conducting the study and determining the proper speed limit are outlined in Section 2B.13 of the MUTCD, and Section 212.108 and the Appendix of Publication 212.

### Step 4: Check Publication 236M

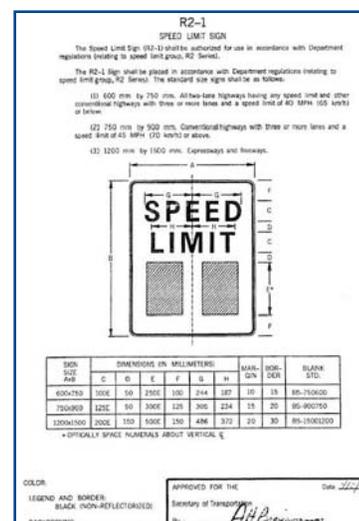
After having reviewed appropriate sections of the MUTCD and Publication 212, conducted the engineering and traffic study, passed the required ordinance, the final step is to refer to Publication 236M, *Handbook of Approved Signs*. This publication contains the layouts and drawings (lettering and spacing dimensions) of all signs approved for use in Pennsylvania. If you have a sign shop, you can use these standards to make your R2-1, speed limit sign. If not, you can order the sign from an approved vendor.

### Step 5: Supplemental Research

Other resources may be necessary to complete your work. These include The Vehicle Code (Title 75), The Pennsylvania Code (Title 67), among others.

#### Example Problem Summary:

- Step 1 – Check and review the MUTCD;
- Step 2 - Review the information in the MUTCD;
- Step 3 - Check Publication 212. This publication contains any supplemental information for Pennsylvania use;
- Step 4 - Check Publication 236M. This publication contains details regarding sign dimensions; and
- Step 5 – Supplemental Research.



### Where Can I View These Documents?

- The MUTCD can be found at <http://mutcd.fhwa.dot.gov/>;
- Chapter 212 can be found at <http://www.pbulletin.com/secure/data/vol36/36-5/179.html>; and
- Chapter 213 can be found on PennDOT's Web site at <http://www.dot.state.pa.us>. Click on Forms and Publications, PennDOT Publications and Maps, and the link for 213.

You can also order a hard copy of MUTCD from one of the following organizations:

- AASHTO: <https://www.transportation.org/publications/bookstore.nsf/>;
- ITE: <http://www.ite.org/bookstore/>; and
- ATSSA: <http://www.atssa.com/store/>.

### LTAP Classes

Now that there are new signing and work zone rules for local governments, including new PennDOT publications, LTAP has updated training materials and handouts. New Signing and Work Zone Rules for Local Governments classes were presented at over 20 locations throughout the state. This training provided information on how local governments will be affected by these new state regulations and federal standards, including changes to sign installation and maintenance requirements, engineering and traffic studies, and work zone traffic control. Also, adoption of these new rules has impacted the Traffic Signs, Work Zone Traffic Control, Risk Management/Tort Liability, and Engineering and Traffic Studies classes, so call to schedule one today! Remember, all of our classes are free of charge. **Call 1-800-FOR-LTAP.**