

SEGD Messages

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Wayfinding: New MUTCD is a Step in the Right Direction

The newly adopted federal Manual on Uniform Traffic Control Devices (MUTCD) includes a new Community Wayfinding section that reflects many changes SEGD and its members have fought to achieve over the last several years.

The final rule adopting the 2009 MUTCD was published in the Federal Register December 16, 2009, signaling that states must adopt the new standards for traffic control devices within two years.

The first new MUTCD released in six years reflects a series of changes friendly to cities attempting to develop effective urban wayfinding systems. The changes reflect several years of advocacy and

education by SEGD and its members, says Craig Berger, SEGD's director of education.

"The new MUTCD is a significant accomplishment for SEGD and its members," says Berger. "Our work over many years began with the promotion of best practice experiments in individual urban sign projects around the country. We also promoted research initiatives before the Transportation Research Board, and have advocated for changes in state guidelines advisories in states including Pennsylvania, Florida, New Jersey, and California."

Major changes or baby steps?

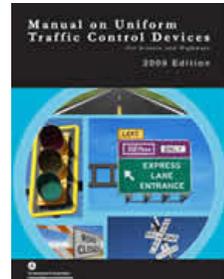
The most important change to the MUTCD from the 2003 version is in Chapter 2D - Guide Signs - Conventional Roads; in particular, the addition of a full section on the design and placement of wayfinding signs: Section 2D.50 Community Wayfinding Signs.

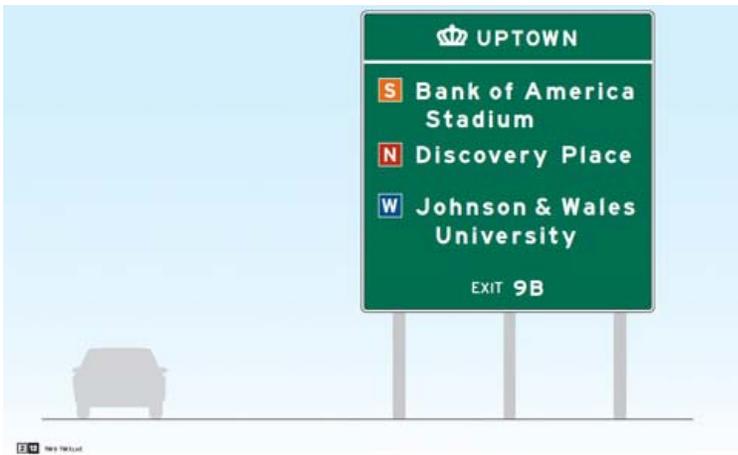
"Prior to the addition of this section, if a SEGD member wanted to (or was forced to) comply with the MUTCD in the development of a wayfinding sign system, they had to refer to standards, guidance, and options developed specifically for standard conventional road traffic control devices," says Phil Garvey, senior research associate with the Pennsylvania Transportation Institute.

"By adding this section, the FHWA is showing that they are finally agreeing that community or urban wayfinding is a different animal and therefore should get special treatment," continues Garvey, an SEGD member who has played an active role in the MUTCD changes through his membership on the Transportation Research Board's National Committee on Uniform Traffic Control Devices. His Human Factors Resource Group has provided input to the Federal Highway Administration on MUTCD guidelines.

The new Community Wayfinding section includes allowances for:

- **Alternate colors.** Communities are not restricted to "highway green" signs, but cannot use "standard highway colors" (i.e., red, orange, yellow, purple, fluorescent yellow-green, or fluorescent pink).
- **Alternative fonts.** Typefaces other than Standard Highway (aka, Highway Gothic) or Clearview can be used; however, to deviate from the standard fonts, an engineering study must be conducted to show the alternative fonts are as visible.
- **Case.** Destinations "shall be a combination of lower-case letters with initial upper-case letters. All other word messages shall be in all upper-case letters."
- **Letter height.** The new MUTCD relaxes rules for letter height on low-volume roads and urban streets with speeds of 25 mph or less from 6 in. to 4 in., allowing that "the principal legend shall be in letters at least 4 inches in height for all upper-case letters, or a combination of 4 inches in height for upper-case letters and 3 inches in height for lower-case letters."
- **Lighting/reflectorization/contrast.** The new MUTCD requires a 3x1 legend-to-background luminance ratio (contrast). It also stipulates that "Legend and background shall be retroreflective."
- **Symbols/arrows.** Signs may only use MUTCD-approved symbols, including standard highway arrows.
- **Sign shape.** The rules state that signs "should" be rectangular. Garvey says that while use of the word "should" allows other shapes to be used, many state DOT's treat "should" statements as "shall" statements.
- ***Amount of content.** The new rules state that content "should" be limited to three destinations per sign.





Based on changes to the MUTCD, the City of Charlotte gained approval from the North Carolina DOT to use unique colors and a crown emblem on its new wayfinding signs.

Garvey says many—but not all—of the changes championed by SEGD made it into the new MUTCD.

“For example, we fought to have alternate arrows allowed (e.g., crow’s foot, Montreal Expo), as research demonstrates they are more legible. But the 2009 MUTCD states that only standard FHWA arrows may be used. We’ll continue to fight this.” Garvey led extensive research on the effectiveness and legibility of alternative arrows.

SEGD advocates tried unsuccessfully to raise the lower-speed threshold for 4-in. letter heights to 35 mph. And they pushed for the wording “illuminated or retroreflective” to be included in the sign lighting/contrast language (as it is included in other parts of

the manual), but the final 2009 rules say only “retroreflective.”

Don Meeker, who is credited with doing much of the design research that informed changes to the MUTCD—including designing Clearview type for highway signs and the Rawlinson typeface for the National Park Service—says the MUTCD is still far from where it needs to be.

“After 50 years the manual is still ‘highway’ when the majority of signing is urban and the ‘community wayfinding’ signing rule does little to address that in any substantive way,” says Meeker. He concedes that the allowance of alternative fonts will improve urban wayfinding, but believes the new MUTCD is still a “cobbled-together” collection of rules based on freeway use, rather than a coordinated set of guidelines that addresses streets and highways as a system.

“If viewed as a system and designed as a system instead of a collection of hundreds of signs independent of one another, it would greatly improve the visual quality of the American road and streetscape while aiding driving and public safety significantly,” Meeker notes.

Others, like Wayne Hunt of Hunt Design (Pasadena), are pragmatic about the new MUTCD. “Yes, the basic MUTCD has not changed much, but the new Community Wayfinding allowance is a big improvement.”

A long road

Berger says the new MUTCD resulted from years of efforts, including in-depth research by respected universities and designers, development of intelligent DOT-approved best practices in major cities like Los Angeles and Philadelphia, and “constant reasoned advocacy” before the Transportation Research Board, FHWA, state DOTs, the American Transit Engineering Association, and city governments.

Its revision also reflects and builds on the work of individual SEGD members who have developed design alternatives and improvements adopted by the new MUTCD. These include the development and research of Clearview and Rawlinson typefaces by Meeker; research initiatives focused on alternative arrows, typefaces, and type heights by Phil Garvey and Martin Petrucha of Pennsylvania State University; and the support of design research by Donald Meeker and Penn State by the U.S. Park Service under Phil Musselwhite.

“Don and Penn State were the first to get the highway traffic engineers’ attention by providing sound and well-founded research that created a forum for change,” says Berger. “Don is right that the MUTCD does little to address the advances in urban wayfinding for airports, train stations, bike and pedestrian transportation, and city wayfinding. And SEGD’s original recommendations were watered down into a series of disjointed guidelines through final filtering at the top levels.



Wayfinding signs in Tampa use 5-in. letters and Clearview type, a federal highway standard. Changes to the MUTCD will allow 4-in. letters in some cases and use of alternative typefaces if cities can show research proving their legibility.

“But I think it’s good to recognize the great impact that a small organization and its members can make on the system, while recognizing that we can never stop trying to improve things.”

Berger also acknowledged individual SEGD members’ work to create state guidelines that became the forerunners to the new

federal standard. This work was led by John Bosio (Merje) for Florida; Kirk Lohry (DAWA Inc.) and David

Gibson (Two Twelve) for North Carolina; and Wayne Hunt (Hunt Design) and Jeff Corbin (Corbin Design) for California, among others.

SEGD CEO Leslie Gallery Dilworth has been active in promoting urban sign development over the last 25 years, first in Philadelphia, than nationwide. Berger has spearheaded the MUTCD advocacy and education efforts for SEGD over the past seven years and has developed numerous wayfinding systems.

SEGD is in the process of developing a workbook for urban sign programs, based on the new MUTCD standards as well as on its years of experience in the support of urban programs. The workbook will contain best practice examples, as well as methodologies for ongoing maintenance and management of sign programs.

The complete new MUTCD can be accessed at the [FHWA website](#). --P.M.K.

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