

Guide Signs

The *MUTCD* contains significant discussion of guide signs, Chapter 2D. Compared to regulatory and warning signs, the information presented on guide signs tends to be considered of less importance. The value of guide signs to road users is reflected in the priority of response for maintenance, especially in emergencies, where guide signs rank behind regulatory and most warning signs. However, directional and navigational advice is valuable to motorists and inadequate presentation can result in confusion and driving errors. This fact, together with the large investment that guide signs can entail, should merit appropriate concern for the design, placement, and maintenance of guide signs.

The *MUTCD* includes several types of guide signs for conventional roads and streets in Chapter 2D, such as route markers, destination and distance signs, trailblazing, service signs, street name signs, and numerous miscellaneous signs. Design standards and recommendations are presented in the *MUTCD* for features such as color, sign size, retroreflectivity, location, amount of legend, and lettering size, style, and spacing. This information should be reviewed carefully when making decisions about guide sign design. *Standard Alphabet for Highway Signs and Pavement Markings* and *Standard Highway Signs* are two publications also recommended for reference. Both are available from the Federal Highway Administration.

Route Markers

The State of Iowa adopted a standardized marking system for local rural roads many years ago, with recommended lettering and numbering for any routes on which counties desire to establish marking. Revisions to this system can be initiated in individual counties by following the procedures described in Instructional Memorandum

4.01 issued by the Local Systems Department of the Iowa Department of Transportation. In general, Iowa counties place and maintain route marking signs on the farm-to-market system; however, some counties mark paved roads only. The location and frequency of route markers should be studied appropriately to meet the needs of the user. Although installation of route markers at every intersection may not be necessary, placement where a confusing decision is presented to the driver is recommended. County route signs have a distinctive shape, with a blue background and yellow lettering. The *MUTCD* recommends a minimum sign size of 18 inches by 18 inches for two digit markings and 24 inches by 24 inches for three digits. Even larger sizes can be obtained, if desired.

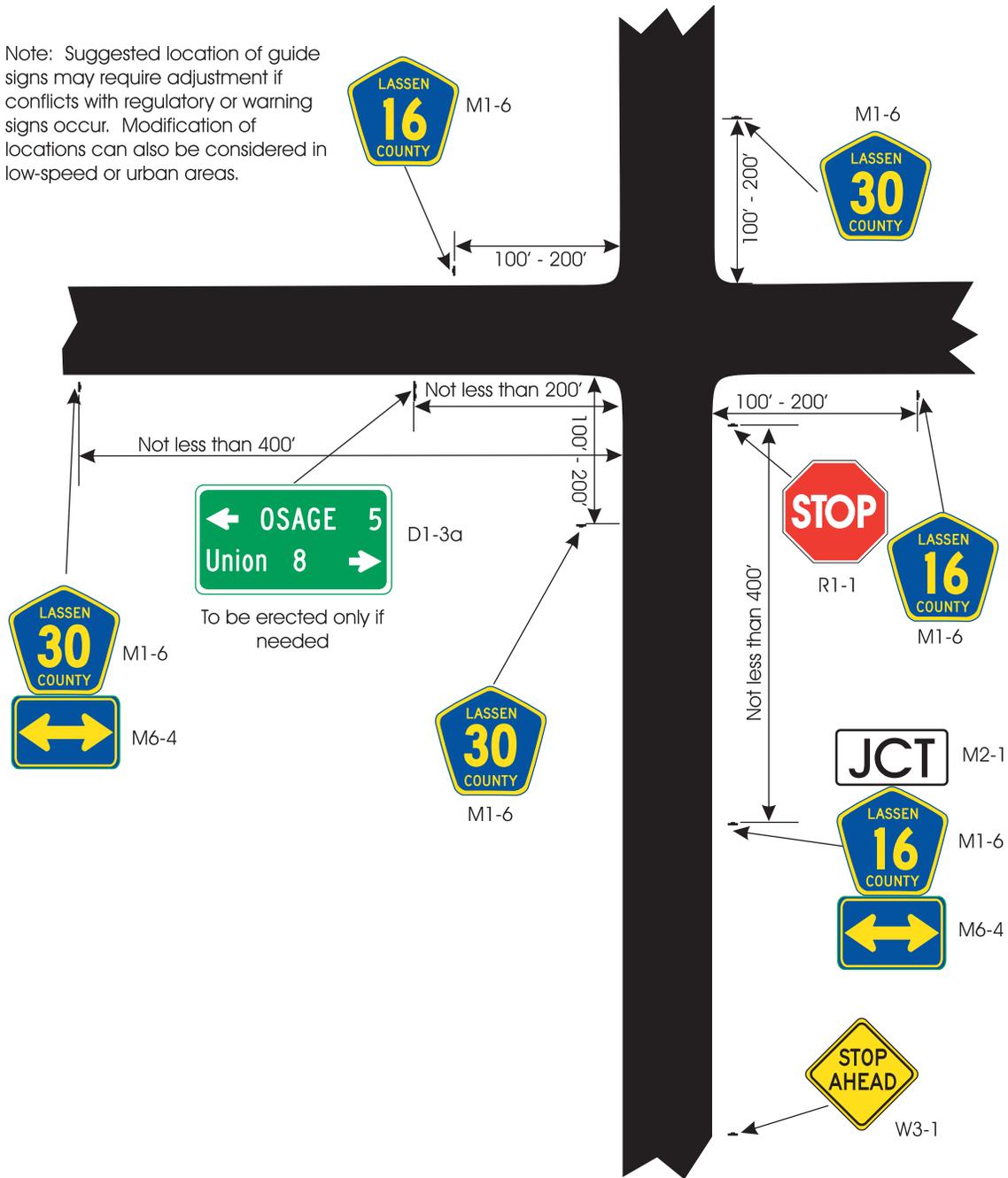
When establishing a route marking system, local agencies must consider Iowa Code Section 306.41, which requires a designated detour for all temporary closures exceeding 48 hours on marked routes.

Additional information on route marking can be found in “A Proposal for a Uniform County Route Marker Program on a National Scale,” available from the National Association of Counties.



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Note: Suggested location of guide signs may require adjustment if conflicts with regulatory or warning signs occur. Modification of locations can also be considered in low-speed or urban areas.



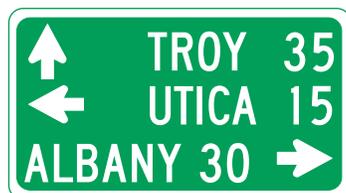
Suggested layout of guide signs at an intersection of two rural roads

Destination and Distance Signing

Local agencies can use destination and distance guide signing in many specific situations where this information is valuable and necessary to advise unfamiliar motorists. Sections 2D.33 through 2D.37 of the *MUTCD* describe applications for these particular types of guide signs, discussing such issues as message presentation, sign size, colors, and location. Of particular interest may be the *MUTCD* recommendations for limiting the number of destinations listed and the amount of legend as covered in Section 2D.07.



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Trailblazing

Although not used extensively in local applications, trailblazing signing can be effective in directing unfamiliar drivers to desired routes where confusing circumstances are encountered. This may be particularly true in some urban situations. Primarily, trailblazing consists of constructing an assembly consisting of a “To” auxiliary sign above the route sign and a directional arrow below the sign on a single post. These signs should be placed in a location where maximum visibility is assured. More information on this topic is presented in Section 2D.32 of the *MUTCD*.

Miscellaneous Guide Signs

Chapter 2D of the *MUTCD* also includes discussion of an extensive list of additional and auxiliary signs that can be used to enhance the primary message presented on a guide sign. Supplemental signing includes directional arrows, To, End, Junction, cardinal directions, and many miscellaneous messages. These signs have a standard size of 24 inches by 12 inches in general, but some devices such as arrows and Junction signs should be 21 inches by 15 inches for desired visibility. In addition, the *MUTCD* contains detailed discussion and guidance on various other guide sign topics that may be of interest to local agencies, such as auxiliary signs, assemblies for route, junction, advance turns, and directional signing, reference posts, trails, and general information signs.

Street Name Signs

The *MUTCD* describes recommended attributes for street name signs in Section 2D.38.

Street name signs must be retroreflectorized or properly illuminated, and a green background with white lettering is recommended.

Lettering Specifications. Recent action by the Federal Highway Administration has increased minimum requirements for lettering size to 6 inches for uppercase letters and 4.5 inches for lowercase letters for street name signs on roadways with speeds over 25 mph. The type of road or street may be designated with minimum 3-inch lettering.

Lower speed local roads can install street name signs with minimum 4-inch letters, if desired. However, there is another consideration with lower speed streets. These facilities may be congested allowing motorists less time to observe and interpret sign messages. A larger copy for easier recognition may be justified for this reason.

Spacing Specifications. Requirements for larger lettering and retroreflectorization were made in recognition of driver needs, particularly those of aging drivers. However, larger letters alone may not entirely meet those needs. Appropriately-sized sign blanks and borders are also very important. Please refer to the suggestions contained in the “Signs” (C1) article in this manual regarding spacing of the sign message.

A rule of thumb for determining letter spacing is as follows (stroke width is the width of the leg of a given letter):

- For straight to straight legs, such as “N” to “N”, use two-stroke width spacing.
- For straight to curved legs, such as “N” to “O”, use one-and-one-half stroke spacing.
- For curved to curved legs, such as “O” to “O”, use one-stroke spacing.

Software providing recommended letter spacing is available.

Reduction in legibility, especially at night, may result from condensed lettering. With high-performance sheeting, this consideration is even more important.

Use of high-performance sheeting for street name signs is desirable because of *MUTCD* requirements and the location at which signs are commonly installed. When using these highly reflective products, particularly ASTM Type VII (Iowa), adequate sign-blank dimensions relative to legend are most important for night visibility. Signs with high-performance sheeting, but of inadequate overall size relative to legend, will not be legible when viewed with vehicle headlights. When making an investment in high-quality materials and modern design, it is equally important that the resultant product provide satisfactory service to the public.

Installation Suggestions. Installing multiple street signs at the same level, especially on utility poles, to save mounting straps can result in obstructed visibility from at least two directions, as one sign will block the other. If possible, mountings at different elevations should be used.

Consistent placement locations for street name signs throughout a jurisdiction should also be sought. When drivers become accustomed to a similar location for street name signs at every intersection, less confusion and searching for guidance will result. All signs, including street name signs, should be reviewed for visibility from every approach direction after installation. In addition, if only one set of street name signs is used per intersection, those signs will be in a disadvantaged location for approximately 50 percent of all drivers at that intersection, both city and rural.

General Suggestions. Unusual lettering styles, special symbols, extra-long street names, and nonstandard colors to emphasize uniqueness of a particular community can present visibility problems for street name signs. Always remember that street name signs have a valuable purpose and require adherence to *MUTCD* standards. Close reference to the Federal Highway Administration’s *Standard Highway Signs* is recommended for lettering and other design details.

More importantly, street name signs must be visible and legible to all roadway users in order to justify the large investment of public funds. For this reason all signs, and perhaps especially street name signs, should be properly designed and specified, carefully inspected upon receipt under day and night viewing conditions, and appropriately maintained after installation.

An established contact and dialog with local planning and zoning agencies can help your community avoid some of these problems. In addition, if a new subdivision suggests using long street names, an example of the resulting size of the sign using recommended lettering size and spacing can be quite helpful in discouraging this practice.

Signs used to mark rural residences and structures for emergency response (911 signs) also merit appropriate consideration. A consistent numbering system beginning at the west and south county lines should be used with sequential numbering from each section line. With this method, even if an individual sign is missing, locations can still be found relatively quickly.

Since these signs are mounted by private owners in many instances, it is important to include instructions on mounting height, perhaps 4 to 5 feet, and location where visibility and recognition are maximized. These signs should be mounted on individual posts, be visible from all approach directions, and use high-performance sheeting for necessary nighttime legibility. Suggested lettering size and spacing, colors and retroreflectivity are discussed earlier in this article and also under “Signs” in this manual.

Potential emergency responders should be consulted and advised of the design, numbering system, and location of these signs. Confusion and difficulty in locating a residence during an emergency response should be avoided or at least minimized. Occasional cleaning, especially if located on gravel roads, may be advisable.