

“Traffic Signing and Marking for County Highways”

DANIEL J. HANSON
Traffic Commissioner
St. Louis County, Missouri

Before we review the significance and importance of signing and marking of county highways, it would seem well to recall the early days when uniformity of traffic control devices was the exception rather than the rule. Some 40 years ago the Mississippi Valley Highway Officials appointed a committee to develop a system of general guides to be used among the member states. A few years later, in 1927, the American Association of State Highway Officials produced a Sign Manual for Rural Highways, the first of its kind.

Signing and marking of county highways, generally speaking, still leaves a lot to be desired. In connection with this subject, you are referred to the new “Manual on Uniform Traffic Control Devices for Streets and Highways” published by the U. S. Department of Commerce, Bureau of Public Roads, in Washington, D. C., June 1961, after several years of extensive study and research. Anyone not having a copy of this Manual is urged to secure one by sending \$2 to the superintendent of documents at the U. S. Government Printing Office in Washington, D. C.

This problem of informing motorists as to what is expected of them is not a new one. Back in 1908, those new-fangled gasoline buggies were quite a problem. In the good old days the following rules were listed as in vogue:

- “1. On discovering an approaching team, the automobilist must stop off side and cover his machine with a tarpaulin painted to correspond with the scenery.
2. In case a horse will not pass an automobile, notwithstanding the scenic tarpaulin, the automobilist will take his machine apart as rapidly as possible and conceal the parts in the grass.
3. Automobiles must be seasonably painted; that is, so that they merge with the ensemble and not be startling. They must be green in the spring, golden in the summer, red in the autumn and white in the winter.
4. Automobilists running in the country roads at night must send

up a red rocket every mile and wait ten minutes for the road to clear. They may then proceed carefully, blowing their horns and shooting roman candles."

Prior to 1961, the last edition of the Uniform Manual was published in 1948. This manual permitted alternate use of several types of signs, signals, and pavement markings. Consequently, many traffic officials went their separate ways installing devices which met their personal fancy.

An excellent case-in-point indicating lack of uniformity can be found in the different practice of several states in the marking of "No Passing" zones. Some states designate "No Passing" zones of sufficient length so that an overtaking maneuver begun a short distance before the beginning of the zone can be safely completed within the zone. In such states it is normally lawful to drive to the left of the yellow line while completing the overtaking maneuver.

Several other states designate what are referred to as short "No Passing" zones. In such states it is unlawful, and very often unsafe, to drive to the left of the yellow line at any time. It is apparent that a motorist, accustomed to driving in a "long zone" state could unknowingly become a menace upon entering a "short zone" state. If he continues to follow his normal passing practices in the unfamiliar state he may not only violate the law but also cause a serious accident.

It is noted that in Indiana "Do Not Pass" and "Pass With Care" signs are not normally used in addition to the standard pavement markings which indicate passing restrictions. It is my strong personal feeling that these signs should be used to emphasize this most important traffic regulation. The new manual specifies that the standard "Do Not Pass" sign shall be 24 inches by 30 inches in size, with a minimum size for minor roads of 18 inches by 24 inches. Motorists should be given advance warning of the "No Passing" zone. The "Do Not Pass" and "Pass With Care" signs are extremely helpful during hours of darkness and in winter months when the solid yellow pavement marking line may be indistinguishable.

Traffic control is, of course, not a new problem. In fact, from the days of the chariots to today's compact cars, traffic movement has been a continuing governmental headache. For example, ancient Greece was having its troubles with women drivers until Lycurgus of Athens, one of the first highway commissioners, tried to impose restrictions upon women chariot drivers. Legend has it that Mrs. Lycurgus was one of the first women to be stopped and shortly thereafter her highway commissioner husband rescinded his order. King Sennacherib

of Assyria didn't fool around with parking tickets. He simply ordered the death penalty for "anyone who interfered with the main highway."

It is obvious that we have come a long way in traffic regulation since the days of ancient Greece. Much uniformity has been accomplished since its importance has been recognized. Use of red as the color to signify a traffic signal stop and a "stop" sign are becoming universal. Likewise, the shapes of certain signs, such as the railroad crossbuck, the octagonal "Stop" sign, and the diamond shaped warning sign have become standard.

Among new signs receiving wide acceptance is the triangular shaped "Yield" right-of-way sign. The design and shape of the "Yield" right-of-way sign has been improved over the original keystone shape and the wording "right-of-way" has been dropped from the message. Although the "Yield" sign has only limited applications on county highways, when used it does have the distinct advantage of only requiring a stop when it is necessary for a driver to yield the right-of-way to crossing traffic. The "Yield" sign should not be regarded as a substitute for a "Stop" sign where a "Stop" sign is warranted. The yield sign shall be an equilateral triangle with a black legend on a yellow fully-reflectorized background and the sides of the triangle shall have a standard length of 36 inches.

A quick look at the membership roster of the National Joint Committee on Uniform Traffic Control Devices should impress anyone with the fact that this group is composed of outstanding individuals highly respected for their ability and know-how. This committee, which authored the 1961 edition of the new Manual on Uniform Traffic Control Devices, includes representation from the following five organizations: American Association of State Highway Officials, Institute of Traffic Engineers, National Committee on Uniform Traffic Laws and Ordinances, American Municipal Association, and National Association of County Officials.

Federal recognition of the importance of uniformity came in 1944 when the federal-aid highway act of that year gave the Bureau of Public Roads approval powers over traffic control installations on highways constructed with federal-aid funds. No all-out effort for state compliance with national standards was initiated, however, until the interstate highway construction program got underway. In 1958, the American Association of State Highway Officials and the Bureau of Public Roads jointly approved a manual of signs and markings, made mandatory for all interstate routes. Since this one system of roadways, when completed, will serve about 20 percent of all vehicle

travel, this action alone is a very significant step toward uniformity.

The introductory section of the new manual says so many things so well that some of these items bear repeating. For example, the manual states that any traffic control device should meet five elementary requirements, namely it should:

1. Be capable of fulfilling an important need.
2. Command attention.
3. Convey a clear, simple meaning.
4. Command respect of road users.
5. Be located to give adequate time for response.

In addition, devices that control or regulate traffic must be sanctioned by law. Four basic considerations must be employed to insure that all of these requirements are met. They are: design, placement, maintenance, and uniformity.

Design of the traffic control device must assure that such features as size, contrast, colors, shape, and lighting or reflectorization where needed, are provided in such a manner as to attract attention. Shape, size, colors, and simplicity of message must be combined in order to produce a clear and instantaneous meaning to the motorist.

Placement of the device must assure that it is located within the range of vision of the normal driver so that it will command attention. The location, combined with suitable legibility, is extremely important and must be such that a driver traveling at normal speed has adequate time to observe and understand the meaning and then make the proper response.

Maintenance of devices must be to the highest standards in order to assure that legibility is retained and that any device no longer needed is removed. Clean, legible, properly mounted traffic controls in good working condition command respect. Signs not having a business-like appearance tend to imply they no longer need to be obeyed. Carelessly executed maintenance can destroy the balance of a whole group of devices. For example, replacement of a single sign by one that is disproportionately larger will tend to depreciate other signs located within the same group. Maintenance must be functional as well as physical, in order to guard against such occurrences.

Uniformity of traffic control devices simplifies the task of the road user since it aids in instant recognition and understanding. Simply stated, uniformity means treating similar situations in the same manner. The use of uniform traffic control devices does not, in itself, constitute uniformity. In fact, using a standard device where it is not appropriate is just as objectionable as using a personal pet but unorthodox device.

Uniformity aids the enforcement officer, the courts, and most important of all, the road user by providing everyone with the same interpretation. Selfishly, from our standpoint, uniformity aids the highway and traffic officials through economy in manufacture, installation, maintenance, and administrative woes.

This is not the place to delve into a detailed dissertation on the numerous changes in the new Uniform Manual. However, I would like to point out that the many guiding principles and important revisions included in the new manual are worthy of your attention and review.

It would seem that in any discussion of traffic signing and markings for county highways, we would ask ourselves several basic questions which relate to a most important element of this program, the driver behind the wheel. Signs and pavement markings can perform a most important function when properly used. In this regard, it appears that any traffic control device should be able to affirmatively withstand the following questions:

1. Are the traffic regulations and standards which have been suggested realistic?
2. Has the trend towards improved vehicle operation, other safety improvements, and the need for uninterrupted traffic flow been fully recognized?
3. Has the tendency to make traffic violators out of reasonable drivers, who are otherwise law-abiding citizens, been discouraged?

The installation and maintenance of traffic signs and markings on county highways has become an important business. It is no longer a forgotten element in the design, construction, and maintenance of our county road network. The motoring public judges the entire roadway system, to a large degree, by the signs and markings they encounter during their daily trips. It is, therefore, most important that we make our traffic signing and markings for county highways as meaningful as possible.