

Uniform Signing for City Streets

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The signing of streets in an urban area is an extremely complex and involved process resulting mainly from a frustrating attempt to keep pace with annual increases in vehicular traffic and the impact of new and large traffic generators in urban areas. In this regard, the new "Manual on Uniform Traffic Control Devices for Streets and Highways" is a wonderful guide and tool which every urban traffic official should use consistently. This Manual was published by the United States Department of Commerce, Bureau of Public Roads, Washington, D. C. in June 1961 after several years of extensive study and research.

Before specific reference is made to many of the new and improved standards that are now available to city traffic officials, a brief review of the history of uniform signing is in order. Thirty-five years ago, in 1927, the American Association of State Highway Officials produced the first sign manual, used exclusively for rural highways. Immediately, city traffic officials realized the need to follow this idea and in 1929 the National Conference of Street and Highway Safety produced a manual dealing with city standards for traffic signs, signals, and markings.

It took six years for city officials and representatives from the various state highway departments to get together and publish the first Uniform Manual on Traffic Control Devices which was printed in 1935. The yellow-covered document, which many of you became familiar with in the last decade, was the post World War II edition of the Manual. It was prepared by a joint committee of the American Association of State Highway Officials, Institute of Traffic Engineers, and National Conference on Street and Highway Safety in 1948.

This same year the National Committee on Uniform Traffic Laws and Ordinances replaced the National Conference on Street and Highway Safety as one of the Manual's three parent organizations. A 15 page revision was issued in 1954 at a time when numerous public officials, including many city traffic engineers, were beginning to realize fully the importance and need for uniform signing. About this same time

city officials were being plagued with requests from the motoring public for more traffic control devices.

Since the Uniform Manual permitted alternative use of several types of signs, signals, and pavement markings, many city officials went their separate ways, installing the devices that met their personal fancy. Alarm was soon expressed. Not only traffic engineers and highway officials, but John Q. Motorist as well began to ask for an understandable, meaningful, and uniform system of traffic control devices.

In the past, the Uniform Manual, although approved as a national standard, was actually used as a guide rather than a mandatory requirement. In fact, in almost 20 states, there is still no law requiring local officials to conform to any standard practices. It has to be rather honestly admitted that the lack of uniform signing on city streets is still a severe problem.

Although many cities use non-uniform traffic signs contrary to state practices, few state officials are willing to impair their working relationships with these cities "over a few traffic signs." Generally speaking, there are no penalty provisions in state laws requiring uniformity and city officials so inclined can ignore the law with impunity. Although some progress has been made, there is a long way to go to achieve the desired degree of uniformity. It is suggested that the new Uniform Manual is the best way of achieving this result.

In 1961, the Uniform Manual's family tree had grown to include the following five parent organizations: American Association of State Highway Officials, Institute of Traffic Engineers, National Committee on Uniform Traffic Laws and Ordinances, National Association of County Officials, and American Municipal Association. Although there is no logical biological explanation for the Manual having five parents, we will certainly have to agree that a wise choice was made.

All levels of government, state, county and city, were represented at a November 1961 Uniform Manual Workshop in St. Louis County. Since that time the St. Louis County Council, Traffic Engineering Association of Metropolitan St. Louis, and the St. Louis County Municipal League, which represents over 70 municipalities, have all adopted resolutions recognizing the importance of implementing the many standards and warrants in the new Manual. A copy of the resolution adopted by the St. Louis County Municipal League in January 1962 follows:

WHEREAS, the Manual on Uniform Traffic Control Devices for Streets and Highways has recently been revised by the National

Joint Committee on Uniform Traffic Control Devices and approved by the American Municipal Association, National Association of County Officials, Institute of Traffic Engineers, American Association of State Highway Officials and National Committee on Uniform Traffic Laws and Ordinances; and

WHEREAS, uniformity in the design and application of traffic control devices throughout the nation would reduce accidents and improve traffic flow by removing causes of driver confusion and uncertainty; and

WHEREAS, the St. Louis County Municipal League is in an excellent position to further the progress of its members and other governmental units towards uniformity in the design and application of traffic control devices; Now therefore,

LET IT BE RESOLVED that the St. Louis County Municipal League unanimously favors and encourages all governing bodies of every governmental unit in St. Louis County to implement and accelerate progress toward such uniformity in the design of application of traffic control devices by appropriate administrative and legislative action.

The installation of too many signs poorly located is the type of traffic control that creates confusion rather than understanding at a busy signalized intersection. In St. Louis County five traffic signs were located on the motorist's near right within a distance of less than 30 feet from the signals. These signs read in order:

No Parking Here to Signal
 Stop at White Line on Red Light
 Right Turn Only on Arrow
 Danger Traffic Merging from Right
 Stop When Signal is Off

It is obvious that no motorist has adequate time or sufficient distance in which to react to the conglomeration of messages. Each sign may have some degree of importance but how can the average driver recognize their relative significance? It has been suggested that no one should drive alone in the St. Louis Metropolitan area and that a navigator is needed for each driver in order to read and interpret the variety of signs, signals, and pavement markings encountered along the way.

Another somewhat similar situation is shown in Fig. 1 where approaching motorists are confronted with four regulatory and warning signs on two separate posts located within six feet of each other.



Fig. 1.

One of the real problems that public officials often face is the well intentioned group of citizens who demand action contrary to uniform standards. Examples of the efforts of pressure groups can readily be seen in the unwarranted use of traffic signs and signals, many of which create more accidents than they prevent. Another example is the use of unreasonably low speed limits which encourage flagrant violations. This subsequently results in disrespect for traffic laws in general.

Let us briefly examine three of the basic traffic regulation devices which are presently being used, namely, the traffic signal, stop sign, and yield right-of-way sign. City traffic officials are familiar with the basic message and meaning behind each of these control devices. However, it is apparent that the general public as a whole does not have the same complete understanding of the use of these devices. Basically, it is not entirely their fault as we have unintentionally led John Q. Motorist into many a confusing and chaotic situation.

At the signalized intersection shown in Fig. 2 a motorist is confronted with a red, amber, and green light; red and white "Stop when Signal Is Off"; and black and yellow "Yield for Pedestrians in Cross Walk" signs. It is understandable that an approaching motorist can



Fig. 2.

become easily confused at a location such as this where he is confronted with a "Go," "Stop," and "Yield" instruction at the same time.

Can you determine which of these indications takes precedence? The interpretation of this type of traffic regulation would afford the Philadelphia lawyers a field day in court. Yet such overcontrol seems almost commonplace in many urban areas.

Another problem in developing uniformity is the time lag from the adoption of standards and the date of their implementation. For example, in 1954 the standard color of the "Stop" sign was changed from yellow to red, yet it is reported that six years later in 1960, less than two-thirds of the cities in the country had converted all of their signs to the new standard.

It was found that the degree of uniformity was least in small cities and greatest in the larger governmental units. This trend is probably attributable, at least in part, to a greater use of a professional engineering approach and a better appreciation of community responsibility in the larger cities.

It will come as no surprise to some that uniformity is actually opposed by some engineers, officials, and legislators on the grounds that it creates restrictions, discourages progress, and rules out experimentation. Arguments along these lines can easily be supported by example and are used to present a case against uniformity. It is certainly true that blind adherence to handbook standards is just as objectionable as rash, unreasoned departures from established procedures.

Actually the new "Manual on Uniform Traffic Control Devices" discourages both blind adherence and rash departures. The new Manual stresses the principles upon which the standards are based, yet encourages imaginative application of these procedures. Allowance has been made for research and experimentation leading to improvement of the standards, but tinkering around is discouraged, as it properly should be condemned.

A look at Fig. 3 plainly indicates what can happen when careful consideration is not given to the placement and design of traffic signs. A black on white rectangular regulatory sign, a black on yellow diamond-shaped warning sign, and a white on red rectangular caution sign have all been assembled together on a single post, giving the approaching



Fig. 3.

motorist a rainbow affect. This driver undoubtedly, however, gains a rather unfavorable impression of traffic signs in general from this conglomeration of sizes, shapes, and color combinations. Fig. 4 shows an example of dual standard speed limit signing where a motorist is given an opportunity to choose between a 20 or 30 miles per hour speed limit.

Space does not permit an extensive discussion of all of the guiding principles and important revisions in the new Manual which relate to "Uniform Signing for City Streets." However, some of the major points include:

1. The section on traffic signs has been completely rewritten and expanded to include new material on expressway signing, lane use,



Fig. 4.

Civil Defense signs, and construction and maintenance operation signing. The latter two items have been covered in individual chapters to facilitate a separate publication and distribution to those who may have little or no use for the other sections of the Manual.

2. The sizes of almost all traffic signs specified in the new Manual are larger than those now in use. These signs are designed to provide greater visibility at higher driving speeds, particularly on multi-lane highways and on expressways.
3. An important innovation in the sign section of the Manual is that standard sizes are now specified for signs, whereas in the past, only minimums were set. For freeways and expressways, signs are to be larger and higher than those on conventional city streets. Overhead signing is to be used at locations where heavy traffic, terrain, or highway design features impair the visibility of signs located at the side of the roadway.
4. A recognition of the value of symbols and their suggested use to the fullest extent possible is indicated. Symbols convey meanings much more rapidly than word messages and are widely used in Europe, Canada and Latin America. In this respect, we are far behind our international brothers; much research and investigation needs to be done in this field.
5. All signs that convey their messages during hours of darkness shall be reflectorized or illuminated. Reflectorization is optional for urban

parking signs, which are ordinarily read at slow speeds and often receive some illumination from street lighting. Overhead signs shall be illuminated where studies indicate that reflectorization will not provide effective performance.

Greater uniformity of traffic control devices is the least that our motoring public can expect from its traffic officials. Our entire roadway system is judged to a larger degree by the signs the daily users encounter. All of us should strive to make these "signs of life" as meaningful as possible. In this regard, the encouraging response to date on the part of city traffic officials indicates that the new "Manual on Uniform Traffic Control Devices for Streets and Highways" provides a giant step towards improved "uniform signing for city streets."