

TRAFFIC AND SAFETY INFORMATIONAL SERIES

FREQUENTLY ASKED QUESTION #13

WHY CAN'T STOP SIGNS BE PLACED AT INTERSECTIONS TO REDUCE SPEEDING ALONG MY STREET?

A common complaint from people in residential areas is that vehicles constantly speed by the fronts of their houses, potentially threatening the safety of the neighborhood's children. These residents frequently request the erection of additional stop signs on their streets to reduce traffic speeds. Adding stop signs, however, usually does not solve the problem of speeding in residential areas.

WHY CAN'T ANOTHER STOP SIGN BE INSTALLED?

A stop sign is an inconvenience to motorists, and stop signs that are not warranted are frequently violated. Therefore, a stop sign should only be placed at an intersection if one or more of the warrants listed in the *Manual on Uniform Traffic Control Devices* (MUTCD) is met (see below). Before the warrants for a stop sign are even considered, however, less restrictive measures (such as a yield sign) are usually considered. In certain cases, the use of less restrictive measures or no control at all accommodates traffic demands safely and effectively.

WARRANTS FOR A STOP SIGN

A stop sign may be warranted at an intersection where one or more of the following conditions exists:

- A less important road intersects a main road and application of the regular right-of-way rule is hazardous.
- A street is entering a through highway or street.
- The intersection is in a signalized area but is itself unsignalized.
- High traffic volumes, a restricted view, and/or a problematic crash history at the intersection indicates the need for control by a stop sign.

If a full stop is not found to be warranted at an intersection, a yield sign can be considered instead.

In addition to evaluating intersections for the installation of new stop signs, existing stop sign installations should be reviewed periodically to determine whether the use of less restrictive control or no control at all could accommodate the existing and projected traffic flow safely and effectively.

WHERE SHOULD A STOP SIGN BE INSTALLED?

A stop sign should be installed/located where vehicles are to stop or as near to that point as possible. The sign may be supplemented with a stop line and/or the word STOP on the pavement. A yield sign is erected in the same manner. Where there is a marked crosswalk, the stop or yield sign should be erected approximately four feet in advance of the crosswalk line.

When only one stop or yield sign is used on an intersection approach, the sign should be placed on the right side of the roadway. Based on engineering judgement, a second stop or yield sign may be added on the left side of the roadway to increase conspicuity. For example, a second sign may be necessary at wide intersections or other locations where additional emphasis of the stop or yield condition is

necessary. Additionally, if two lanes of traffic are present on an approach, at least one stop sign should be visible to each lane of traffic.

CAN STOP SIGNS CONTROL SPEED?

Many studies have shown that stop signs are not an effective means of controlling or reducing midblock speeds, and Section 2B.04 of the MUTCD specifically notes that stop signs should not be used for speed control. In fact, the overuse of stop signs may cause drivers to act carelessly in the presence of the stop signs that are installed. In stop sign observance studies, approximately half of all motorists typically come to a rolling stop and 25 percent do not stop at all. A study conducted by Beaubien (1989) also showed that placing stop signs along a street may actually increase the peak speed of vehicles because motorists tend to increase their speed between stop signs to regain the time “lost” at the stop signs. Moreover, stop signs can give pedestrians a false sense of safety if it is assumed that all vehicles will come to a complete stop at the proper location.

WHAT CAN BE DONE INSTEAD OF INSTALLING A NEW STOP SIGN?

There are many alternatives to installing a new stop sign. For example, a concept called *traffic calming*, the combination of physical traffic controls and community support, might be a good alternative for some communities. Traffic calming measures can be installed as part of an areawide traffic management plan or on a single street and involve local law enforcement, emergency and maintenance officials, engineers, and the community. One traffic calming measure that could be applied in the short or long term to address speeding is the use of speed feedback signs. The effectiveness of these devices varies by location, application, and duration, with urban, non-school zone deployments producing reductions in mean speeds of 1 to 8 mph.

Some communities also start inter-neighborhood programs to address the problems of speeding and traffic safety in their neighborhoods. In many cases, the problem is largely attributable to drivers that live in these same neighborhoods, and simply raising awareness of the issue may prompt these drivers to adjust their driving behaviors and decrease their speeds.

Though measures can be taken, unfortunately there is no definitive solution to the problem of drivers speeding through residential areas. It is important for residents to be aware of the issue.

REFERENCE

Beaubien, R. 1989. Controlling Speeds on Residential Streets. *ITE Journal*, Vol. 59, No. 4, pp. 37–39.