

When should intersections receive stop signs and signals?

It may surprise you to learn that adding stop signs or traffic signals would not necessarily slow drivers down or increase safety at intersections. In fact, in some cases, especially when the signs or signals do not seem to be needed, some drivers may begin to ignore them. Therefore, officials in your area make careful decisions concerning the use of stop signs and traffic signals. Here are some of the factors they consider:

Too many signs can lead to ineffectiveness

Studies have shown that when stop signs are placed at intersections where they are not really needed, motorists become careless about stopping. Installing traffic signals where they are not needed can also create traffic congestion, add travel time, and frustrate drivers, and these drivers may become impatient and make unsafe maneuvers.

The use of signs and signals should be restricted to locations where they will be effective

Signs and signals are only effective and should only be used when they meet the following four requirements. They should (1) *fulfill a need*, (2) *convey a clear, simple meaning*, (3) *command attention and respect*, and (4) *give adequate time for drivers to respond*.

Two-Way Stop Signs: Locations must have one or more of the following conditions for two-way stop signs to be installed:

- an intersection of a minor and a major road, where the application of the normal right-of-way rule would be hazardous;
- a street enters a highway;
- an un-signalized intersection in a signalized area;
- there is high-speed traffic, it is hard to see, and there is a previous crash record.

Four-Way Stop Signs: Four-way stop signs are often used at the intersection of two roadways that contain similar traffic volumes. At least one of the following conditions should be met:

- a traffic signal is going to be installed and the intersection needs a temporary solution to control the traffic;
- both streets have moderate traffic volumes (at least 200 vehicles/hour on the less traveled street)
- within 12 months at least five crashes have occurred at the intersection that could have been prevented by stop signs.

Four-way stops may also be considered in cases where there are substantial pedestrian volumes or severe visibility limitations that can't otherwise be corrected.

Signals: At least one of 11 conditions must be met for a traffic signal to be installed. The conditions include high vehicle and/or pedestrian volumes, a record of severe crashes, and school crossings where there is not enough of a gap in traffic flow for children to cross safely.

Stop signs and signals can be effective when used appropriately, but can decrease safety when used inappropriately. In many cases, other solutions—for example, a yield sign—should be considered first.

For more information, see <http://www.tac.arlington.ma.us/documents.htm>

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