Multi-Way Stop Sign Installations

The traffic Engineering Model of the Ohio Department of Transportation (ODOT) states “Generally multiway stop installations should be used sparingly because of the significant increases in delays and operating costs that can result from requiring all of the vehicles using the intersection to stop. Also, unnecessary stops, when the intersection is clear of conflicting movements, can lead to general disrespect for STOP signs.” (From Section 1.505 of the Traffic Engineering Manual.

Multiway STOP installations should be used sparingly.

- Multiway stop control is used where the volume of traffic on the intersecting roads is approximately equal.

The City frequently receives and hears requests from the public about adding stop signs in different areas. The State requires that specific criteria are met before stop signs are installed. This brochure details the criteria.

Frequently asked questions:

STOP SIGNS AS SPEED CONTROL

Q. Can a Stop Sign be used to control speed?

A. It’s a common misconception that stop signs can be used to control excessive speed in neighborhoods.

The Ohio Manual of Uniform Traffic Control Device states “STOP signs should not be used for speed control.”

City of Huber Heights
6131 Taylorsville Road
Huber Heights, Ohio 45424
Phone: 937-233-1423
Fax: 937-233-1272
Criteria for a Multiway STOP sign installation

The Ohio Manual of Uniform Traffic Control Devices (OMUTCD) gives criteria for a multiway STOP sign installation. The following is from the OMUTCD:

The decision to install a multiway stop control should be based on an engineering study.

The following criteria should be considered in the engineering study for a multiway STOP sign installation:

A. Where traffic control signals are justified, the multiway stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

B. A crash problem, as indicated by 5 or more reported crashes in a 12-month period that are susceptible to correction by a multiway stop installation. Such crashes include right-angle collisions as well as right-turn collisions.

C. Minimum volumes:
   1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) average at least 300 vehicles per hour for any 8 hours of an average day, and
   2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour, but
   3. If the 85th-percentile approach speed of the major-street traffic exceeds 65 km/h or exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values.

D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

Other criteria that may be considered in an engineering study include:

E. The need to control left-turn conflicts;

F. The need to control vehicle/pedestrian conflicts near locations that generate high pressure volumes;

G. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to safely negotiate the intersection unless conflicting cross traffic is also required to stop; and

H. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multiway stop control would improve traffic operational characteristics of the intersection.

Still Have Questions?

Please feel free to contact the Engineering Division at 937-237-5816

City of Huber Heights
6131 Taylorsville Road
Huber Heights, Ohio 45424
Phone: 937-237-5816
Fax: 937-233-1272
E-mail: rbergman@hhoh.org