

**MARKINGS TECHNICAL COMMITTEE
PROPOSED CHANGES TO SECTION 3B.16 – STOP AND YIELD LINES**

Rational for Proposed Change

Multiple threat crashes account for many injuries and deaths each year (Snyder, 1972; Zegeer, Stewart, & Huang, 2001). In a multiple threat crash a pedestrian is struck in a crosswalk on a multilane highway after another vehicle(s) has yielded close to the crosswalk, blocking the vision of motorists approaching in the pedestrian's next lane of travel. Crosswalks on multilane roads with an uncontrolled approach are one type of crosswalk geometry associated with multiple threat crashes. Drivers who yield too close to crosswalks place pedestrians at risk by screening other motorists' view of pedestrians. One countermeasure to reduce this type of crash is to instruct motorists to stop at a safe distance (about 30 feet) from the crosswalk. Data has shown that instructing the motorist to yield further back with signs and markings leads to good compliance and is associated with large reductions in pedestrian-motor vehicle conflicts (Nee, & Hallenbeck, 2003; Van Houten, 1988; Van Houten & Malenfant, 1992; Van Houten, Malenfant, & McCusker, 2001; Van Houten, McCusker, Huybers, Malenfant, & Rice-Smith, 2003).

Proposed Change

Section 3B.16 Stop and Yield Lines

Standard:

If used, stop lines shall consist of solid white lines extending across approach lanes to indicate the point at which the stop is intended or required to be made.

If used, yield lines (see Figure 3B-14) shall consist of a row of solid white isosceles triangles pointing toward approaching vehicles extending across approach lanes to indicate the point at which the yield is intended or required to be made.

Guidance:

Stop lines should be 300 to 600 mm (12 to 24 in) wide.

Stop lines should be used to indicate the point behind which vehicles are required to stop, in compliance with a STOP (R1-1) sign, traffic control signal, or some other traffic control device, except YIELD signs.

The individual triangles comprising the yield line should have a base of 300 to 600 mm (12 to 24 in) wide and a height equal to 1.5 times the base. The space between the triangles should be 75 to 300 mm (3 to 12 in).

Option:

Yield lines may be used to indicate the point behind which vehicles are required to yield in compliance with a YIELD (R1-2) sign or a Yield Here to Pedestrians (R1-5 or R1-5a) sign.

Guidance:

If used, stop and yield lines should be placed a minimum of 1.2 m (4 ft) in advance of the nearest crosswalk line at controlled intersections, except for yield lines at roundabout intersections as provided for in Section 3B.24 and at midblock crosswalks. In the absence of a marked crosswalk, the stop line or yield line should be placed at the desired stopping or yielding point, but should be placed no more than 9 m (30 ft) nor less than 1.2 m (4 ft) from the nearest edge of the intersecting traveled way. Stop lines should be placed to allow sufficient sight distance to all other approaches to an intersection.

If used at an unsignalized ~~midblock~~ crosswalk with uncontrolled multilane approaches, yield lines should be placed adjacent to the Yield Here to Pedestrians sign located 6.1 to 15 m (20 to 50 ft) in advance of the nearest crosswalk line, and parking should be prohibited in the area between the yield line and the crosswalk (see Figure 3B-15).

Stop lines at midblock signalized locations should be placed at least 12 m (40 ft) in advance of the nearest signal indication (see Section 4D.15).

Support:

Drivers who yield too close to crosswalks ~~on~~ with uncontrolled multi-lane approaches place pedestrians at risk by blocking other drivers' views of pedestrians.