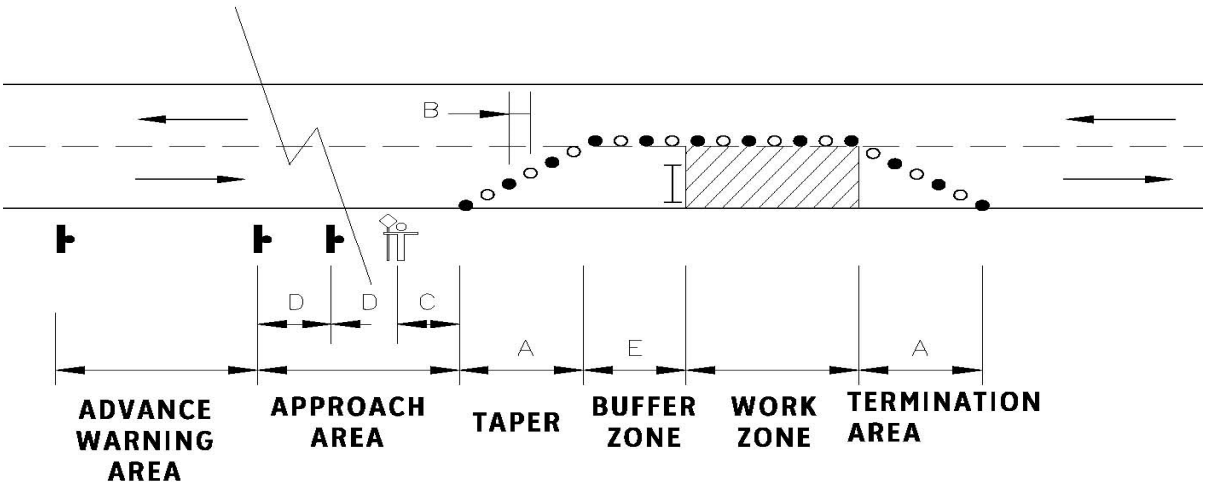
SECTION 705

LOCATION AND PLACEMENT OF SIGNS

INDEX

705.01 GENERAL

Seven categories of signing are distinguished with regard to location of devices relative to work sites, namely, Advance Warning Area, Approach Area, Taper, Buffer Zone, Work Zone, Termination Area and Intersecting Roads. See the diagram below for further explanation.



705.02 ADVANCE WARNING AREA

The advance warning area is the section of the roadway where motorists are first alerted to roadwork ahead. Signing in this area may begin up to 2km from the approach area and ending at the TC-1 CONSTRUCTION AHEAD sign.

705.03 APPROACH AREA

The approach area is the section of the roadway where motorists are given final warning and information on what actions to take before entering the work zone. Signing in this area typically begins immediately following the TC-1 CONSTRUCTION AHEAD sign and ends at the beginning of the buffer zone.

705.04 TAPER

The taper or transition area is the section of the roadway where motorists are channelized from the normal alignment to proceed safely past the work zone. Depending on the location of the work a taper may not be required if there is no encroachment into the travelled portion of the roadway. The taper is normally delineated with the use of pylons, construction markers, chevrons, drums or delineator posts. The transition area may include several diagonal and parallel sections to safely route vehicles to bypass the work zone. The length of the taper sections are important to properly guide traffic, and are shown on each of the Sign Layout Diagrams and the Construction Distance Table on Drawing 799-1 in the Traffic Control Manual.

The taper length is the length of the section of roadway required to achieve the rerouting from the normal travel path and shall be as follows when no lane control is present (based on the normal posted speed limit):

SPEED	LENGTH
50 km/h or less	30 m
60 km/h	40 m
70 km/h	60 m
80 km/h	90 m
90 km/h	110 m
100 km/h	180 m

When lane control and low speed is present on the approach to the work zone, the taper may be reduced to 30 metres. Lane control would be in the form of a flagperson, temporary traffic control signal or lane controlling signage in low speed and low volume traffic areas.

705.05 BUFFER ZONE

The buffer zone provides a recovery area for errant vehicles by providing a clear zone between the taper/transition area and the work zone. The buffer zone is usually delineated by traffic devices and no work material, vehicles or equipment are stored/used in this area. When a Control Vehicle is placed in advance of the work zone, the buffer zone should be provided between the Control vehicle and the work zone. Buffer zone lengths are shown on each of the Sign Layout Diagrams and the Construction Distance Table 799-1 in the Traffic Control Manual.

705.06 WORK ZONE

The work zone is the portion of the roadway that contains the work activity (workers, equipment, and construction materials). The work zone may be fixed in one location or moved as the work progresses. The area is usually delineated by channelizing devices or in some instances shielded by barriers.

Potential hazards and conflicts will increase in the work area if:

- The work area is close to the travel lane(s)
- A physical obstruction exists (uneven pavement, trucks turning, etc.)
- Speed of traffic increases
- The distance the traffic is shifted gets greater or more complex
- The duration of the work increases (in excess of 12 hours)

The layouts found in this manual will illustrate the typical delineation and distance signs are to be installed in advance of a work zone.

705.07 DESCRIPTION OF TERMINATION AREA

The termination area is used to transition vehicles back to the normal travel lanes of the roadway after the work zone. The termination area extends from the end of the work zone to where normal vehicle operation can resume. This transition is normally similar to the taper leading into the work zone. The driver is informed of the end of the construction zone after leaving the termination area and can usually return to the original operating speed of the roadway upon leaving this area.

705.08 INTERSECTING ROADS

Consideration shall be given to signing intersecting secondary roadways that exist within a work zone and the area reserved for the approach signage to the work zone. As a minimum, this signing shall consist of a TC-1 Construction Ahead sign displaying an appropriate directional arrow. See drawings 756-1 and 756-2 in the TCM for examples of

signing intersecting roads. Additional signage on the intersecting roadway may only be considered if the last two signs in the sequence of approach signage are not apparent to motorists on the intersecting roadway. Adjusting sign spacing may also be considered as a means of reducing sign requirements on intersecting roadways while providing pertinent information that is apparent to all motorists. In all situations, the placing of signs shall be based on a review of traffic conditions, traffic volumes, sight distances and sound technical judgment.

705.09 BASIS OF PAYMENT

All costs associated with temporary condition signing to standards as outlined in this Section shall be the responsibility of the Contractor. Cost of the signs, handling, installation, removal, asphalt reinstatement and / or repair, materials, and labour shall be paid by the Contractor and no payment shall be considered by the Department.