



10. SIGN LOCATION

CHAPTER **10**



Chapter 10 Sign Location

		Page
10.1	Introduction	10-2
10.2	Siting	10-4
10.3	Placement	10-6
10.4	Mounting Heights	10-7
10.5	Orientation	10-8
10.6	Provision for the Visually and Mobility Impaired	10-11
10.7	Anti-Rotation	10-12



Chapter 10 Sign Location

10.1 Introduction

- 10.1.1 In order to perform the function for which it is intended, a sign must be capable of transmitting its message clearly and in good time. The clarity of the message presented on a sign is dependent on following the guidelines in other chapters of this manual.
- 10.1.2 There are four aspects to be considered when positioning a sign:
- (i) Location in relation to the junction, or other feature, to which it applies;
 - (ii) Placement in relation to the edge of the carriageway and other features of the cross section;
 - (iii) Height above the road;
 - (iv) Orientation.
- 10.1.3 These factors are discussed in the four subsequent sections of this chapter. Once the location of a sign has been determined, its relationship with other signs and the environment in general should be considered. Illustrations are contained in the appendix to this chapter which shows examples of alternative sign locations.
- 10.1.4 In rural areas, signs should be mounted clear of any vegetation. On embankments where signs are mounted on the side slope, the bank should be extended out to accommodate the sign base.
- 10.1.5 Signs should not interfere with scenic views, or with specially designed features e.g. road bridge.
- 10.1.6 Where islands, projecting from footpaths are provided for the control of parking or as a traffic calming measure, these may be used for the erection of signs which might otherwise be obscured on the footpath.
- 10.1.7 Care should be taken to avoid the screening of heritage buildings, monuments, buildings of architectural significance or other important items. Care should also be taken to minimise the blanking out of shop fronts and general streetscapes.



- 10.1.8 In urban areas, where practicable, signs should be combined, particularly where logos or symbols are concerned, instead of individual messages mounted separately.



10.2 Siting

- 10.2.1 Drivers must be able to read and understand a sign in sufficient time for them to safely react to its message. In order that this can be achieved, signs should be sited at the correct distance before the hazard, junction or other site to which they relate. It is also essential to ensure that signs are in fact visible from these distances and not obscured by intervening obstructions.
- 10.2.2 The siting and clear visibility distances for the different types of signs are given in tables in previous chapters. All the recommendations are classified according to the speed value of the road. The 85th percentile approach speed of private cars for the stretch of road on which the sign is to be located is the indicator used to define speed value. This is the speed which is exceeded by 15 percent of vehicles and should usually be calculated by surveying speeds at a point about 200-300 metres in advance of the position where the sign is required. The actual position of the survey will depend upon the vertical and horizontal alignment of the road, the presence and frequency of side roads and the likely visibility of the sign. It may not always be necessary to measure approach speeds where a speed limit is in force. However, it must be remembered, particularly in 30 mph speed limit areas, that this can be a poor indication of actual approach speeds.
- 10.2.3 In siting signs, the advice given in individual chapters should be closely followed although it will not always be possible to adhere precisely to these standards due to site limitations. Variations from the standard siting distance of up to 10 percent are generally acceptable. Variations greater than this are only permissible if no alternative is available.
- 10.2.4 Steps should be taken to deal with obstructions to the clear visibility of signs. Over-hanging trees and shrubs should be cut back and bus stops moved if necessary. Standing vehicles that continually mask a sign may have to be prohibited. Subsequent building development and other features such as shop signs and blinds should not be allowed to obscure traffic signs once they are erected.
- 10.2.5 Care is needed to avoid any confusion which may arise, such as when a minor junction, possibly unsigned, intervenes between a directional or warning sign and the junction it serves.
- 10.2.6 Occasionally, signs must be sited on both sides of the carriageway, particularly if related to one way streets. For example the "No Entry" sign is normally so duplicated. On all roads, duplication of speed limit signs is a requirement. On high speed dual



carriageways, duplication of warning signs on the approach to a change in the main line status or configuration is recommended. Advance direction signs can also be duplicated on the central reserve of dual carriageways if it is wide enough to maintain clearances between the sign and the two carriageways (The clearances are given in the next section).

10.2.7 Signs may lose their effectiveness because of their setting. Smaller signs may fail to stand out against a background which is variegated and colourful and others may be overpowered by a stronger background. Advertisements behind or near signs may prove distracting. Poor and distracting backgrounds should be partially screened in an appropriate manner e.g. planting or the provision of backing boards on signs.

Safety Fencing

10.2.8 It will be necessary, in some instances, to provide safety fencing at signs to protect occupants of vehicles in case of impact. The attached flow chart will assist in arriving at a decision as to whether such fencing should be provided or not and, the appropriate type to be used.

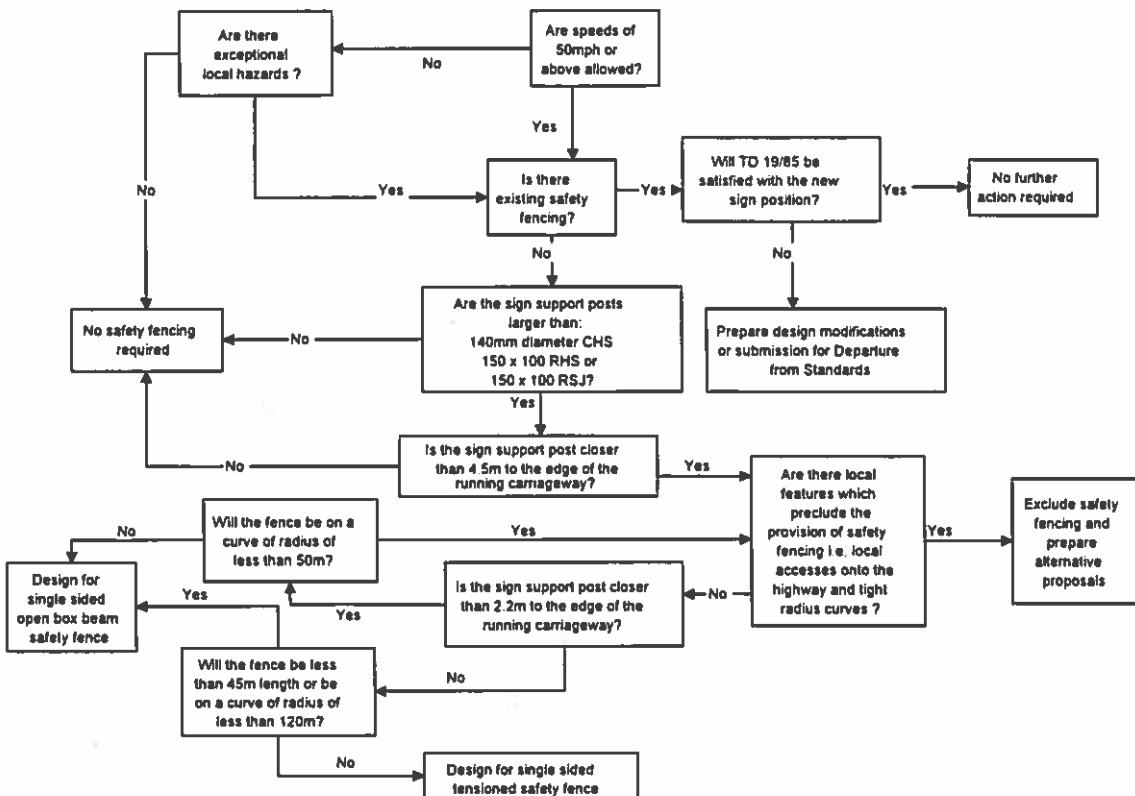


Figure 10.1
Flow Diagram For The Design Of Safety Fencing



10.3 Placement

- 10.3.1 The placement of a sign is its position on the cross-section of the road. A sign should be placed so as to maintain a clearance between itself and the traffic on the carriageway.
- 10.3.2 Signs should be set at least 450mm from the edge of the carriageway in urban areas and 600 mm in rural areas. On high-speed dual carriageways the clearance should be at least 1200 mm and where there is a hardened verge or shoulder, the nearest edge of the sign should be not less than 600 mm from the verge or shoulder.
- 10.3.3 In urban areas the obstruction caused by posts located on narrow pedestrian footways should be minimised. Cantilever signs supported by a single post should be used wherever possible. Alternatively it may be possible to attach signs to existing structures such as walls, fences, buildings, railings and lamp posts. If signs can be mounted in this way, they should be not more than 2000mm from the edge of the carriageway.



10.4 Mounting Heights

- 10.4.1 The lower edge of signs or the supplementary plates below them should be between 1000mm and 1500mm above the highest part of the carriageway. If there is a likelihood of spray dirtying the sign, the greater height should be chosen. In undulating areas, the lesser dimension is appropriate for a sign located on the crest of a hill whilst the greater dimension is suitable for a sign at the bottom of a trough.
- 10.4.2 Low-level direction signs at roundabouts and junctions may be mounted lower than the standard height, but not less than 0.75 metres above road level.
- 10.4.3 In city centres, where congested conditions prevail, higher mountings may be required if standing vehicles consistently prevent signs from being seen. Alternatively cantilever signs or specially designed gantries can be provided on which to mount the signs.
- 10.4.4 In built up areas, signs may have to be mounted higher than 1500mm. If signs are erected on footways, a minimum of 2100mm should be provided as headroom for pedestrians. A height of 2300mm is preferable. The previous section indicates circumstances in which signs may be erected on structures adjacent to pedestrian footways.
- 10.4.5 If signs are erected on structures, mounting heights less than 2100mm can be used, provided that the signs can still be seen, do not obstruct pedestrians, and are out of the range of spray thrown up by passing vehicles. (See Figure 10.2).

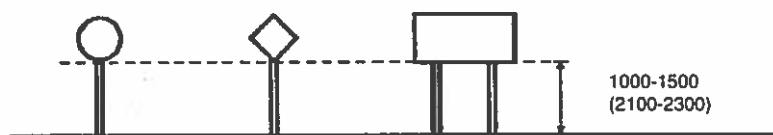


Figure 10.2 Mounting Heights.



10.5 Orientation

- 10.5.1 Sign orientation is important as signs must be sited in order to avoid specular reflection caused by the head lamps of approaching vehicles. In areas where street lighting is not provided, specular reflection from traffic signs can be particularly troublesome as drivers often have to use head lamps on full beam to see the road ahead clearly.
- 10.5.2 To eliminate or minimise the effects of specular reflection, signs should be set at an angle from the beam of the head lights of approaching vehicles.
- 10.5.3 On a straight carriageway, the horizontal axis of a sign should be set at an angle of 95° away from the general alignment of the left hand side of the carriageway on the approach side. This is illustrated in Figure 10.3.
- 10.5.4 On some bends and complicated winding alignments, compromise solutions may have to be adopted, but generally it will be adequate on a right hand bend for a sign to be set at an angle of 90° to a line tangential to the left hand edge of the carriageway at the point where the sign is erected. This is shown in Figure 10.4.
- 10.5.5 Signs erected on left hand bends should be orientated at 95° from a line joining the edge of the carriageway at the sign with a point on the same edge of carriageway 200 metres in advance of the sign as shown in Figure 10.5.
- 10.5.6 Signs are normally to be set transverse to the line of travel of approaching road users. The main exceptions to these are the signs and plates indicating parking restrictions and taxi ranks which should be parallel to the kerb and also some direction signs which must point approximately in the direction to be taken.

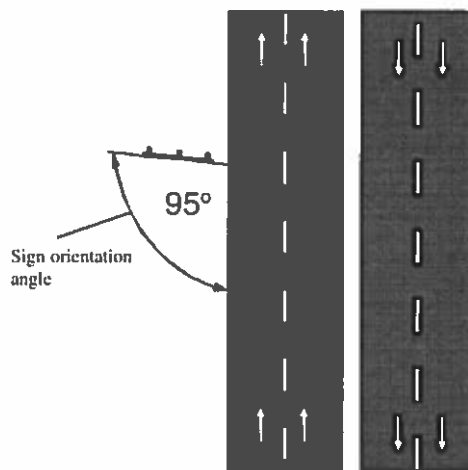


Figure 10.3
Orientation of sign on straight lengths of road.

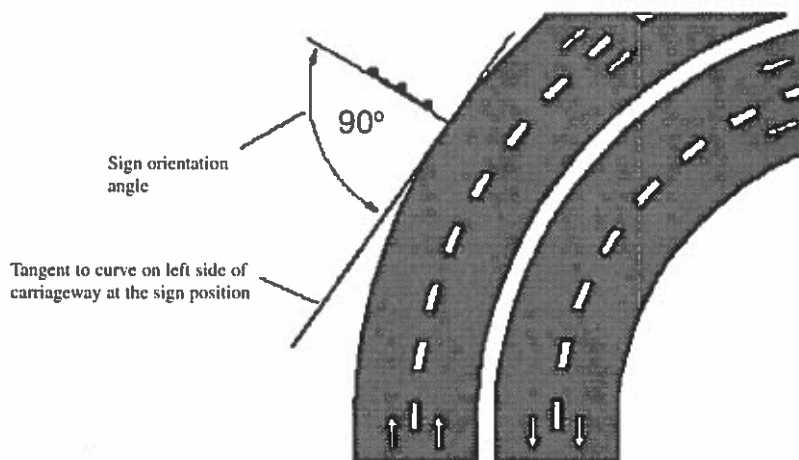


Figure 10.4
Orientation of sign on a right hand bend.

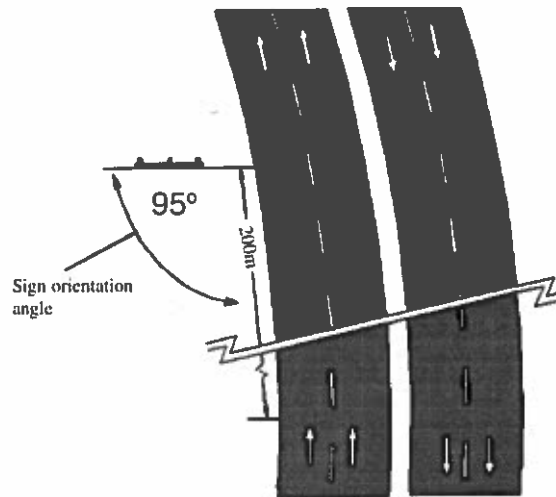


Figure 10.5
Orientation of sign on a left hand bend.



10.6 Provision For The Visually And Mobility Impaired

10.6.1 Where street furniture e.g. signs, lighting poles, traffic signal poles etc., is being installed, every consideration should be given to whether the installation or its supports would impede in any way the free circulation on the footpath by the visually and mobility impaired, the elderly and people with prams. The following guidelines, of particular concern to the visually and mobility impaired, are equally applicable to all such installations:

- (1) Street furniture should be carefully and consistently located so as not to impede the walking area and should provide directional guidance. Supports should be at the back of the footpath or as close to the kerb edge as is practicable.
- (2) Street furniture should be kept to a minimum.
- (3) Street furniture should have rounded edges.
- (4) Street furniture, when at low level, should be detectable to assist long cane users.
- (5) A clear headroom of 2100mm should be maintained in all pedestrian areas.
- (6) Where difficulties in placement arise, the local authority should have consultations with affected local parties and, if necessary, the National Rehabilitation Board before installing street furniture.



-
- 10.7 Anti-Rotation**
- 10.7.1** To avoid interference, signs should normally be at least 2.1 m above the adjoining ground level. Where it is necessary to mount signs at a lower level, a minimum of 2 post mounting should be used.
- 10.7.2** Fixing clips for single post mounted signs should have anti rotational grooving. Only the clip size specific to the post diameter used should be affixed.
- 10.7.3** Standard posts are drilled through near the bottom to permit the use of a pin preventing rotation in the ground. This pin should be provided in all cases of single post mounting.

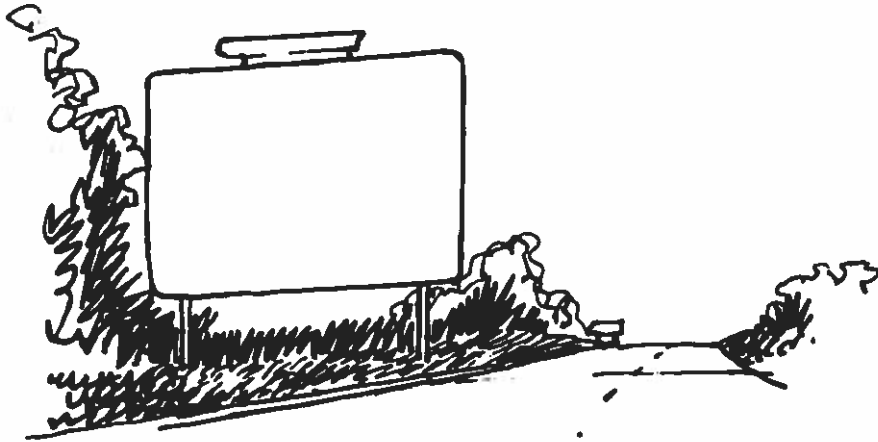


Badly placed sign clutters street and blocks view.

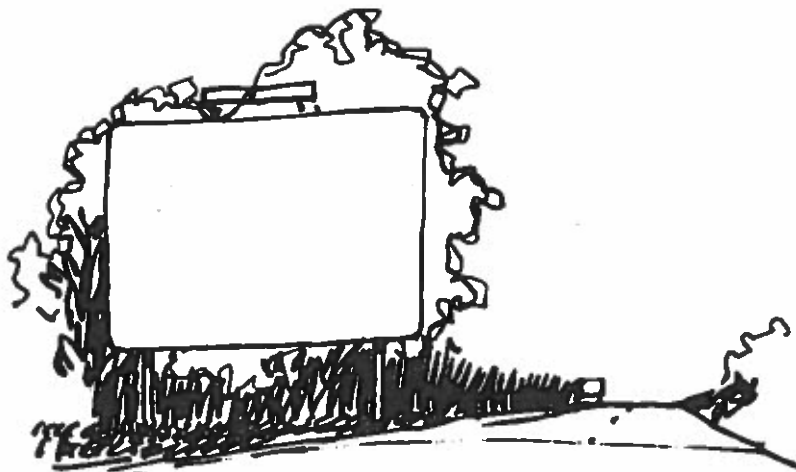


Sign sited against house silhouette may be preferable.

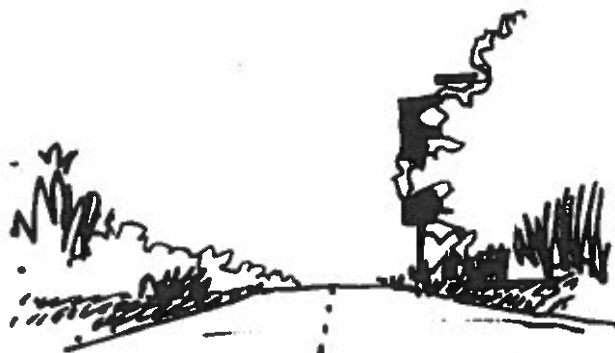
Figure A10.1
Unobtrusive Siting Of signs In Urban Areas



Sign sited against sky.



Sign sited against tree preferred.



Trees mask the rear.



Figure A10.2
Vegetation Can Be Used to Mask Signs

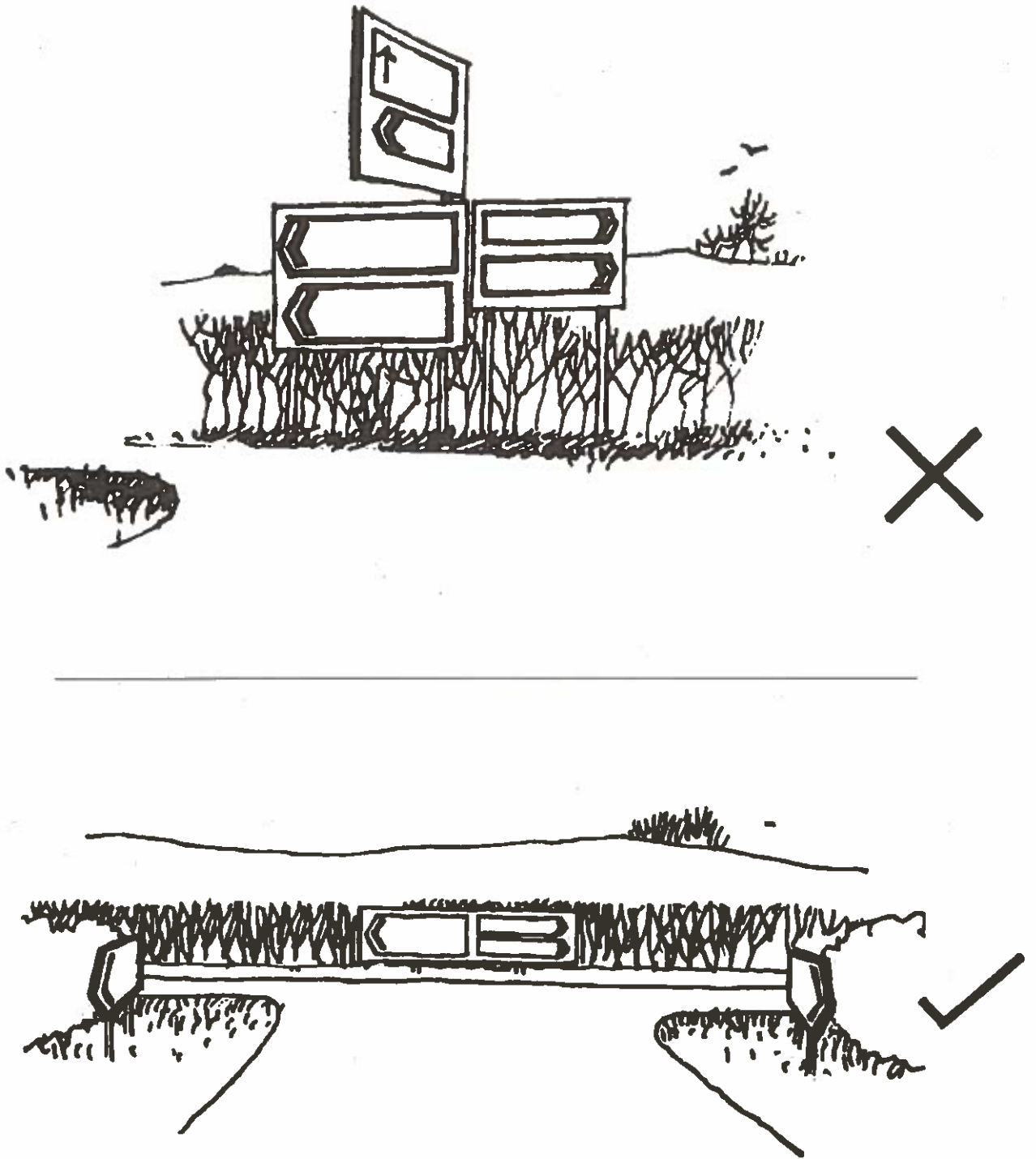
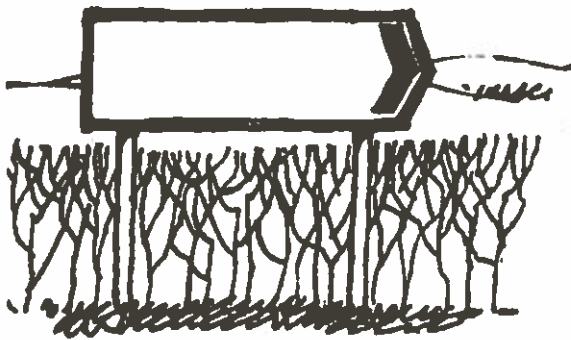
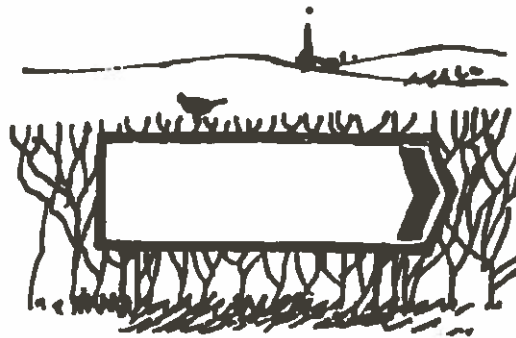


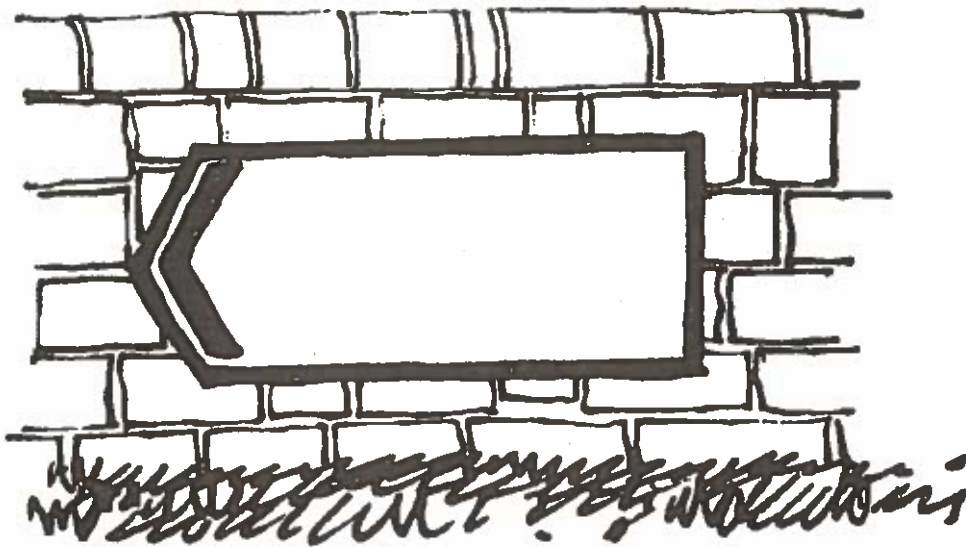
Figure A10.3
Complicated Arrangements Are Obtrusive. Horizontal Arrangements Are Preferred



Sign too high



Preferred height



Fixed to wall

Figure A10.4

Sign Heights Should Be Altered To Lessen Environmental Impact Or Take Advantage Of Existing Walls Or Structures.

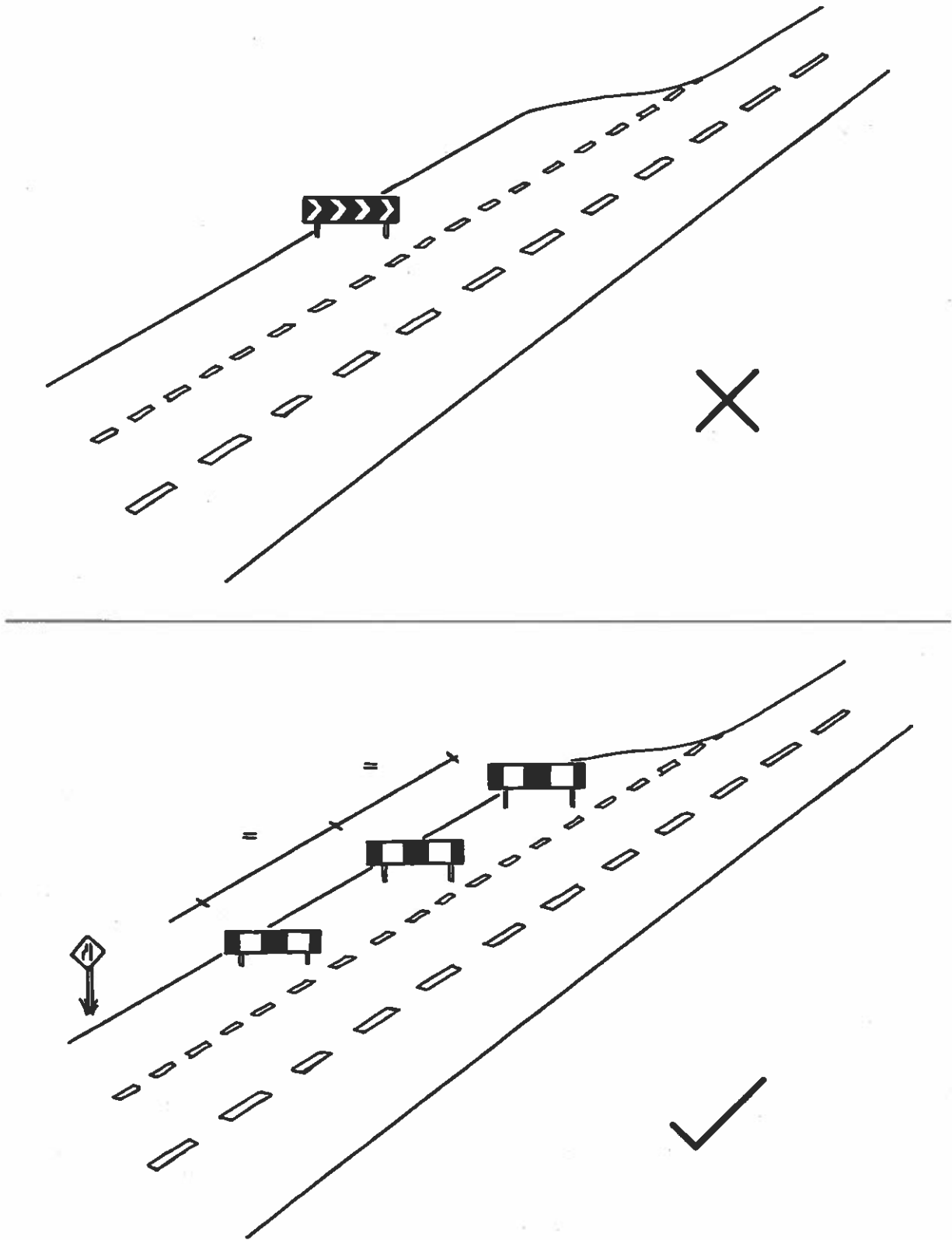


Figure A10.5
The End Of The Hard Shoulder Should Not Be Indicated By A Chevron

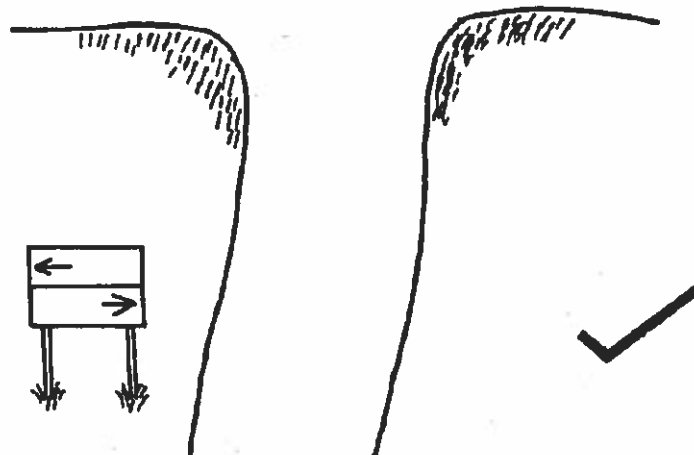
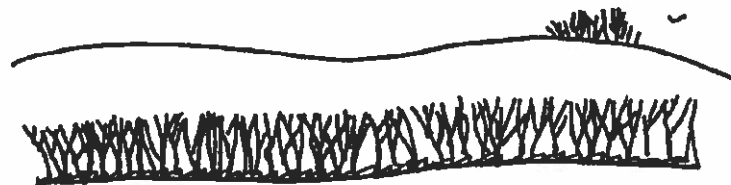
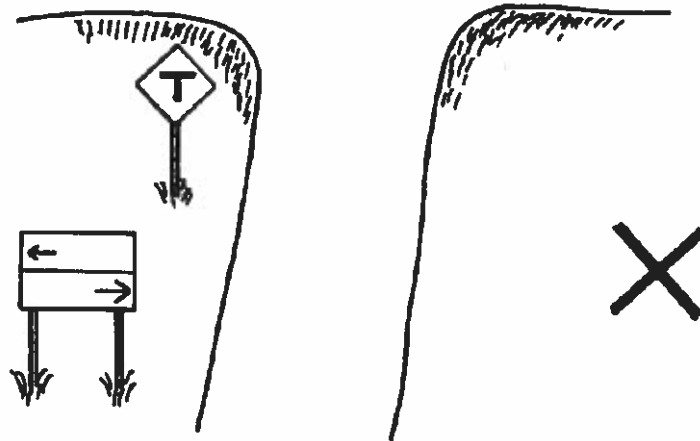
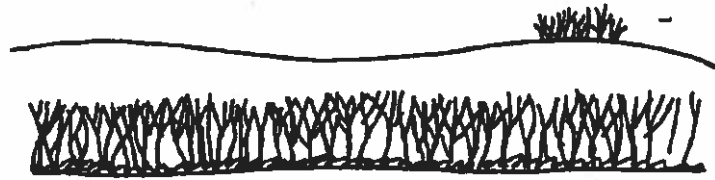


Figure A10.6
Junction Warning Sign Is Not Required Where Directional Signs Indicate The Junction Layout.

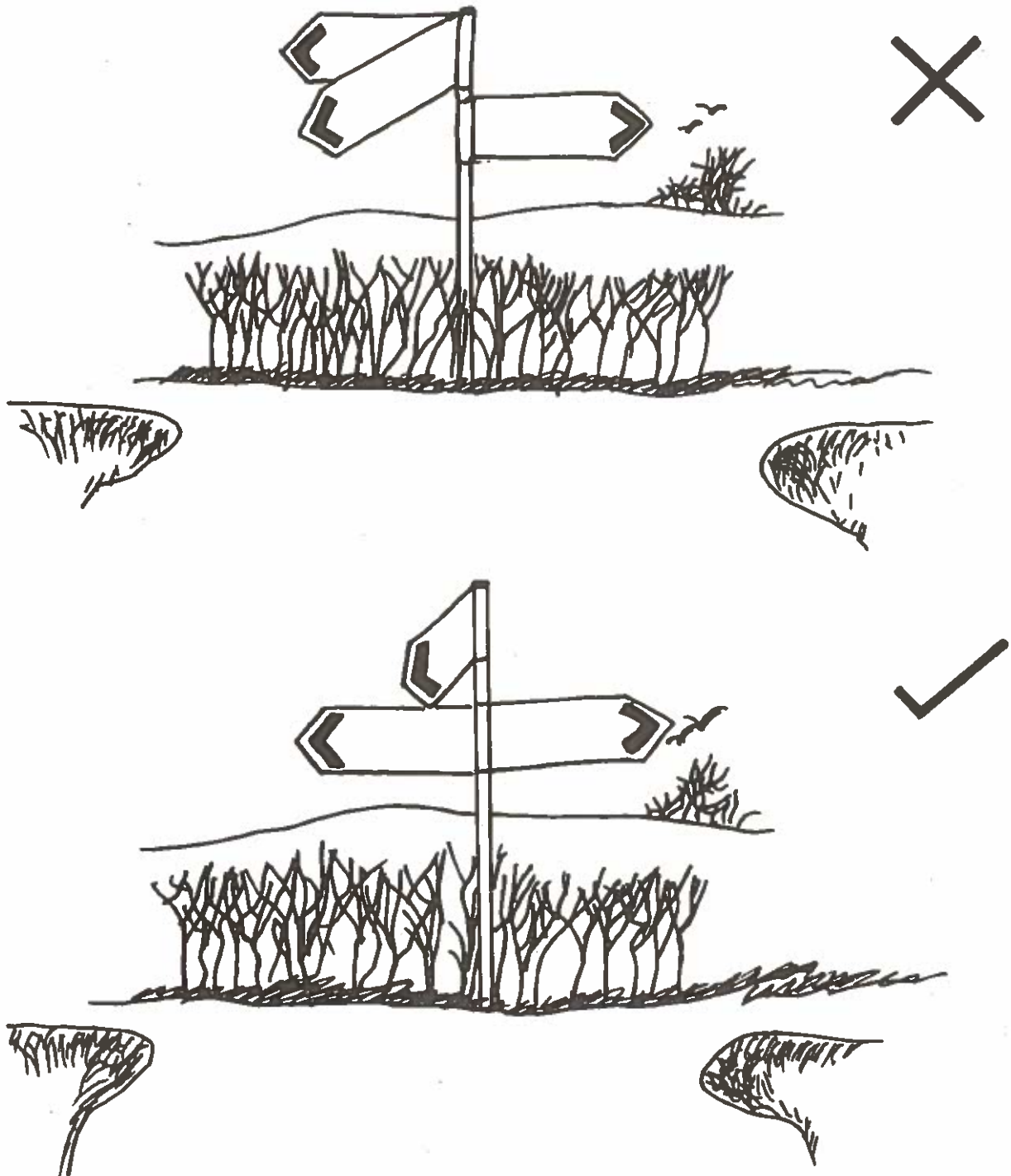


Figure A10.7
Signs In The Same Plane Should Be On The Same Level. Signs In Other Planes Should Not obstruct View

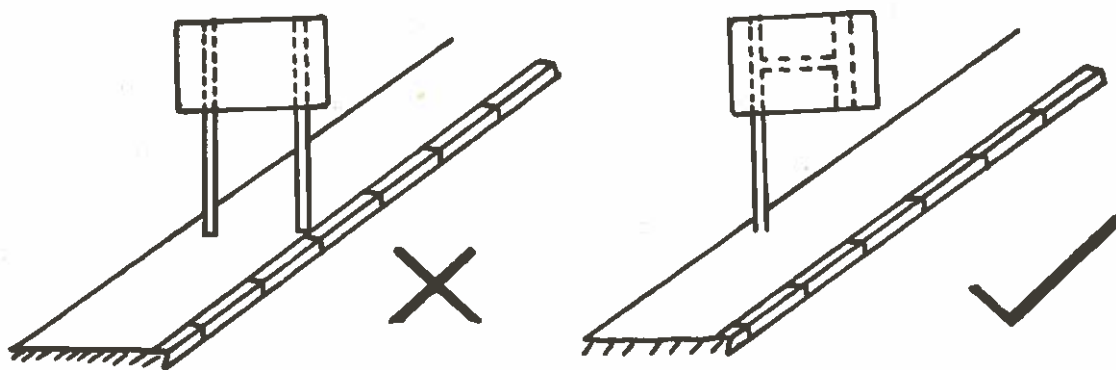


Figure A10.8
Cantilever Signs Should Be Used On Pedestrian Footways Whenever Possible.

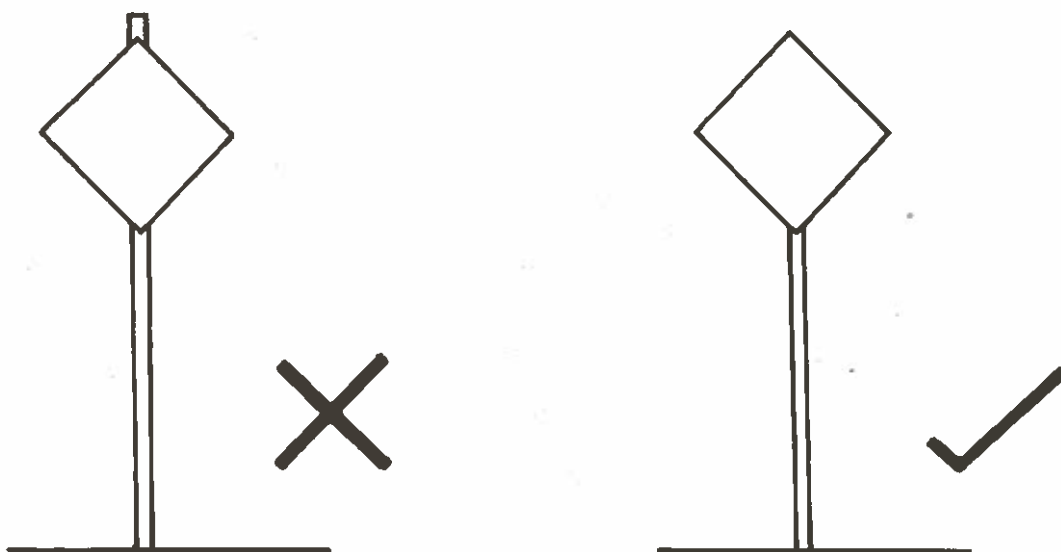


Figure A10.9
Mounting Posts Should Not Protrude Above The Sign Face.

