



1. GENERAL INFORMATION

CHAPTER **1**



Chapter 1 General Information

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Chapter 1 General Information



Figure 1.1
End Of Speed Limit



Figure 1.2
Junction Ahead With Road Of Less
Importance



Figure 1.3
Sharp Deviation Of Route To Left



Figure 1.4
Stack Type Advance Direction Sign

1.1 Introduction

- 1.1.1 Clear and effective signing is essential for the efficient operation of the road network, for the enforcement of traffic regulations, and for road safety purposes.
- 1.1.2 Signing includes signs on posts, carriageway markings, and traffic signals. All of these must give road users their message clearly and at the correct time and must be uniform throughout the country.
- 1.1.3 This manual provides a comprehensive guide to the types of signs and markings used in this country. A selection of typical prescribed signs are shown in Figures 1.1 to 1.4.
- 1.1.4 This manual also sets out the technical standards to be followed in the provision of the various types of signs and road markings, including temporary signs for use in connection with road works, and those used in emergencies by the Gardai.
- 1.1.5 The manual is divided into a further nine chapters, of which eight are devoted to the technical details of different types of signs, traffic signals, and road markings. The manual also sets out guidelines for the use of studs, delimiters, etc.



1.2 Responsibilities

Legal Framework

- 1.2.1 The legal framework for traffic signage (including signs, devices, notices, and markings) is contained in the Road Traffic Acts. The Road Traffic (Signs) Regulations, 1962, as amended, which are made under Section 95 of the 1961 Act, define the signs and road markings to be used and the significance attached to them.

General Responsibilities

- 1.2.2 The National Roads Authority (NRA) has overall responsibility for the planning and supervision of works, including signposting, on the national road network.
- 1.2.3 The functions of the NRA include preparing, or arranging for the preparation, of road designs and maintenance programmes for national roads including approval of schemes for the provision of traffic signs.
- 1.2.4 Legal responsibility for public roads is vested in the County Councils, County Boroughs, Borough Corporations, and Urban District Councils. These local authorities, in discharging their roads functions, are referred to as "road authorities". The statutory duty of the road authorities includes responsibility for the specification, construction and maintenance of road signs and markings.



Figure 1.5
Direction Sign (Information)



Figure 1.6
Stack Type Advance Direction Sign (Information)



Figure 1.7
Motorway Advance Direction Sign (Information)

1.3 The Functions and Classifications of Signs

1.3.1 Traffic signs and road markings are divided into three broad categories - information, regulatory and warning. Different types of signs are used on motorways and a special series of warning signs are used for roadworks. Chapters 2 to 8 discuss types of signs and markings based on these broad divisions. These are:

- Information Signs
 - Directional
 - Motorway Directional
 - Other Information

- Regulatory Signs
- Warning Signs
- Road Markings
- Roadworks Signs

Information Signs

1.3.2 Information signs normally give road users information about routes and places and facilities of particular value and interest. Most information signs are rectangular but direction signs have one end pointed. Examples of information signs are presented in Figures 1.5 to 1.7.

1.3.3 The colours used on information signs depend on the classification of the route that is indicated:

- (i) signs for motorways have white lettering, symbols and borders on a blue background;
- (ii) signs indicating national routes have white lettering, symbols and borders on a green background;
- (iii) signs indicating other routes have black lettering, symbols and borders on a white background.

1.3.4 In addition, facilities of interest to tourists are shown with white lettering, symbols and borders on a brown background.



Regulatory Signs

- 1.3.5 Regulatory traffic signs indicate the existence of road regulations or implements such regulations, or both. They may also indicate the existence of a provision in an enactment relating to road traffic. Regulatory signs may be either mandatory or prohibitory.
- 1.3.6 The mandatory signs give instructions to drivers about what they must do; for example KEEP LEFT (Fig. 1.8), STOP (Fig. 1.9), YIELD (Fig. 1.10). Most mandatory signs such as the KEEP LEFT sign are circular with white symbol and border on a blue background. Others, such as the YIELD sign have black lettering or symbol on a white background, with a red border.
- 1.3.7 The prohibitory signs give instructions to drivers about what they must not do; for example NO ENTRY (Fig. 1.11). Speed restriction signs are further examples.



Figure 1.8
KEEP LEFT Sign



Figure 1.9
STOP Sign
(Regulatory)



Figure 1.10
YIELD Sign
(Regulatory)



Figure 1.11
NO ENTRY Sign
(Regulatory)

Warning Signs

- 1.3.8 These signs give warning of a hazard ahead and are yellow in colour and diamond shaped. The yellow diamond is surrounded by a black border and contains a black symbol to indicate the nature of the hazard such as the example sign shown in Figure 1.12.

Road Works Signs

- 1.3.9 A special group of signs are designated to indicate to road users that road works are in progress. These signs are either diamond or rectangular in shape and are coloured orange with a black border and symbols as demonstrated by the sign in Figure 1.13. The signs indicate to road users that extra care is necessary when they are encountered.



Figure 1.13
Diverted Traffic
(Roadworks Warning)



Figure 1.12
Cross Roads With Minor Road Ahead
(Warning)



1.4 The Design and Use of Signs

- 1.4.1 A sign must be capable of transmitting its message clearly and at the right time, to road users travelling at the normal speed for the road during the day and night. To achieve this a sign must have correct legibility distance, appropriate target value, simple contents and layout and effective reflectorisation or illumination. Signs must incorporate all of these requirements, be adequate in design and construction but avoid being extravagantly expensive.
- 1.4.2 The legibility of traffic signs is of prime importance. The achievement of this criterion is determined by the size of lettering or symbols used. Contributory factors include the use of adequate colour contrast between lettering/symbols and background and the type of alphabet used.
- 1.4.3 Target value is an assessment of how well a road user can identify that there is a road sign ahead. It depends on both the colour and size of the sign: a large sign will have adequate target value whatever its colour but difficulties can occur with smaller signs in urban areas where it is desirable to select sites with backgrounds that do not reduce the target value of the sign.
- 1.4.4 The use of symbols to represent a message is most effective for simple content and layout of a sign. Where lettering has to be used it is important to condense the message into as few immediately comprehensible words as possible.
- 1.4.5 As size is by far the most important factor determining sign cost, signs should be designed to meet the required legibility without wasting space.
- 1.4.6 A number of factors determine the distance over which a sign message is legible including:
- (i) the size of lettering or logo;
 - (ii) the number of messages to be scanned;
 - (iii) the lateral distance of the sign from the edge of the road;
 - (iv) the speed of the approaching vehicle.



- 1.4.7 As a result of these considerations, different sizes of signs are used to suit different speed values. On signs where legibility of words is important, different sizes of alphabet are used. For ideographic and symbolic signs, the size of the sign is proportional to the speed of approaching traffic. Details of the different sizes used are given in subsequent chapters.
- 1.4.8 Two types of lettering are used on signs because of the two languages that may appear. On all signs, Irish words and place names shall be in lower case lettering with initial capitals where appropriate. All Irish script shall be inclined to the right at an angle of 15 degrees to the vertical.
- 1.4.9 All English script shall appear in upright letters. English versions of place names shall be entirely in upper case letters but worded statements can appear in upper case or lower case with initial capitals. Further details are given in subsequent chapters. The general layout of bilingual information signs is demonstrated in Figure 1.14.
- 1.4.10 Different classes of signs have different colour combinations. The number of colours that can be used on signs is limited by both aesthetic and technical requirements and is discussed in more detail in subsequent chapters.



Figure 1.14
Start of Urban Area Sign



1.5 The Positioning of Signs

1.5.1 There are four aspects to the positioning of a traffic sign:

- (i) its siting along the road in relation to the appropriate junction, hazard or other feature;
- (ii) its placement in relation to the edge of the carriageway and other features of the road cross section;
- (iii) its height above the road;
- (iv) its orientation.

Siting

1.5.2 In order to allow a driver adequate time to comply safely with its message a sign needs to be sited carefully. Generally, the distance from its related feature will depend on the speed of approaching traffic, although local conditions such as possible obstructions are important considerations.

Placement

1.5.3 The placement of a sign is dictated by the local conditions and includes the degree of camber or crossfall, the type of edge of carriageway and the type of road.

Mounting Heights

1.5.4 The mounting height of a sign is important to ensure visibility, especially at night. Relatively high mountings should be used where excessive spray is likely to soil the signs. In built-up areas, signs may have to be higher for various reasons, especially where they are erected on footways to allow clearance for pedestrians. Where illumination is necessary and vandalism likely, lamps should be out of easy reach.

Orientation

1.5.5 Orientation is important if specular reflection from traffic signs is to be avoided. To eliminate or minimise this effect, signs should be angled away from the direct beam of the headlights of approaching vehicles.

1.5.6 The considerations required when siting traffic signs are discussed more fully in Chapter 10: Sign Location.



1.6 Sign Mounting

- 1.6.1 Signs should be mounted using the fewest number of posts possible, especially in urban areas. A proliferation of posts can present unnecessary hazards for the visually impaired and create obstructions for people with perambulators or wheelchairs.
- 1.6.2 It is advantageous to attach signs to adjacent walls where these are located close enough to the carriageway or, alternatively, to group signs together on posts. When posts must be erected in narrow footways they should be positioned to cause the least possible obstruction and reserve the greatest width of clear walkway.
- 1.6.3 Sign posts should be designed to accommodate the total area of signs to be attached to them. If attaching larger or additional signs to existing posts, care should be taken to check that the strength of the posts is adequate, giving particular attention to any reduction in strength due to corrosion. When existing posts are shown to be inadequate for the total loading, it is preferable to replace them rather than use additional posts.
- 1.6.4 Specifically designed concrete or steel posts will be required for the very large signs used on high speed roads such as motorways.



1.7 Sign Backgrounds

- 1.7.1 The effectiveness of signs is often dictated by their setting and surroundings. A colourful background can cause small signs to fail to stand out. Even the larger signs can be overpowered by a strong background colour.
- 1.7.2 The attention of road users can be distracted by the location of conspicuous advertisements behind or near signs. Indeed signs can be missed if flashing or brilliantly illuminated advertisements are present.
- 1.7.3 These points should be considered when siting new traffic signs and in the exercise of the control of advertisements under general planning regulations. If a poor or distracting background cannot be avoided, it may be partially screened by a backing board to a sign. The size of such boards should be varied to suit local conditions.
- 1.7.4 All sign-face material (other than black) should normally be reflectorized with material complying with Class II (UK) material as specified in B.S. 873.

The use of higher grade reflective material (Class I) may be justified in a number of circumstances as outlined below:

- (i) Where the sign location is such that high angularity of retroreflection is necessary, e.g. overhead bridges or chevron signing at roundabouts or sharp bends.
- (ii) On the last advance direction sign before the off slip of a motorway.
- (iii) On important safety related signs, e.g. 'stop' or 'yield' in lit areas.
- (iv) At high accident locations where the use of such material is considered beneficial.



1.8 Maintenance of Signs

- 1.8.1 Signs must at all times be maintained to preserve their effectiveness and general condition. Signs become less effective when characters discolour or deteriorate and when damaged or displaced as a result of accidents or vandalism.
- 1.8.2 It is essential that periodic inspections of signs be carried out to ensure their prompt repair or replacement. Illuminated or reflectorised signs should be regularly inspected after dark. Similarly, night time inspections of delineators and studs are essential, particularly in wet weather.
- 1.8.3 All signs require regular cleaning. Materials used on the sign-face should be cleaned in accordance with guidelines issued by the manufacturer of the material concerned.



1.9 Use Of Irish On Traffic Signs

Place-Names On Information Signs

- 1.9.1 It is a statutory requirement that place-names on information signs be in both Irish and English, except:
- in Gaeltacht areas, where the names of places in such areas should be shown in Irish only; and
 - where the spelling of a place-name is similar in both languages, in which case the Irish form of the name should only be shown.
- 1.9.2 All Irish text should be in italics print; in lower case lettering with initial letters in capitals. Irish script should be inclined to the right at an angle of 15 degrees to the vertical.
- 1.9.3 All English text should be in upper case Roman letters.

Information Signs not Depicting Place-Names

- 1.9.4 The requirements relating to the use of Irish and English languages on information signs depicting place-names should also be applied to all other information signs including information plates which may accompany signs.

Forms and Spelling of Place-Names

- 1.9.5 It should be ensured that the correct forms and spelling of place-names are used on traffic signs. In this regard, the following approach should be adopted.
- (a) Road authorities should consult the Place-Names (Irish Forms) (No. 1) (Postal Towns) Order, 1975 (S.I. No. 133 of 1975);
 - (b) If the place-name is not included in the Place-Names Order, the Gazetteer of Ireland should be consulted; this was published in 1989 by the Place-Names Branch of the Ordnance Survey and provides a bilingual list of the principal geographical names of Ireland:



- (c) In determining the correct Irish form of a place-name which is not provided in either of the above publications, road authorities should in all cases consult with, and obtain advice from, An Coimisiún Logainmneacha (The Place-Names Commission). Before consulting with An Coimisiún, road authorities may wish to ascertain through local consultation whether specific place-names have a particular local significance, or what traditional local usage may exist.

Abbreviation of Place-Names

- 1.9.6 In some cases, where place-names (in Irish or in English) may be disproportionately lengthy for the purpose of clear signposting, the place-names may be abbreviated. The following standard abbreviations of some component terms may be used where these terms occur at the beginning of place-names in Irish:

- Baile - B.
- Caisleán - Cais.
- Droichead - Dr.
- Mainistir - Main.

Warning Signs (including Road Works Signs)

- 1.9.7 These signs do not, generally, have text, but incorporate symbols to convey messages. Where text is used, it should be bilingual, except where there is a danger that the impact of the message would be diluted, in which case separate Irish and English signs should be used.