
**TRAFFIC SIGNS MANUAL
CHAPTER 8 TRAFFIC SAFETY
MEASURES AND SIGNS FOR ROAD
WORKS AND TEMPORARY
SITUATIONS**

**VOLUME 8 TRAFFIC SIGNS AND
LIGHTING:**

**SECTION 4 TRAFFIC MANAGEMENT
AT ROADWORKS**

**INTERIM ADVICE NOTE IAN 57/04
REVISION 1**

**THE USE OF TEMPORARY SPEED
LIMITS AT ROAD WORKS ON HIGH
SPEED ROADS**

SUMMARY

This Interim Advice Note provides revised guidance to traffic management designers relating to the application of temporary speed limits at road works on high speed roads.

INSTRUCTIONS FOR USE

This IAN supersedes the relevant guidance on the use of temporary speed limits at road works on high speed roads provided in the Traffic Signs Manual – Chapter 8 – 1991 and in TA 64/94 of the Design Manual for Roads and Bridges.

INTERIM ADVICE NOTE 57/04 (IAN 57/04)

Revision 1

THE USE OF TEMPORARY SPEED LIMITS AT ROAD WORKS ON HIGH SPEED ROADS

1. INTRODUCTION

1.1 Background

1.1.1 The prime objective of the temporary traffic management designer should be to produce temporary traffic management arrangements, which facilitate the movement of traffic past the works whilst maintaining the same standards of safety as in the permanent situation. For each element of the preliminary temporary traffic management design, the designer should seek to identify any geometric or safety feature, which fails to achieve the same standard as the permanent highway. The designer should impose additional measures to ameliorate these shortcomings. In general terms such measures should directly address the safety deficiency identified.

1.1.2 There are circumstances in which it is inappropriate or impracticable to directly address safety deficiencies in the preliminary design of the temporary traffic management arrangement. In such cases the imposition of a temporary speed limit can be used to indirectly reduce safety deficiencies. This approach protects both the road user and workforce by maintaining the overall safety standards of the highway, and thereby promoting safe and controlled traffic flow past the works.

1.1.3 Whilst it is appropriate to use temporary speed limits to ameliorate safety deficiencies in the temporary highway infrastructure, it is not appropriate to impose reduced temporary speed limits to compensate for risks to the workforce arising from inappropriate working methods. These should be addressed by greater use of equipment/machines, the provision of barriers, and alternative operational techniques. Only where there are space limitations adjacent to the works area, which prevent implementation of adequate works site protection within the safety zone, should a reduced speed limit be considered.

1.2 Scope

1.2.1 This Interim Advice Note provides revised guidance relating to the application of temporary speed limits at road works on high speed roads, and supersedes the relevant guidance provided in the Traffic Signs Manual - Chapter 8 – 1991 and in TA 64 of the Design Manual for Roads and Bridges.

1.2.2 The principles and provisions set out in this document are applicable to all high speed trunk roads in England which are subject to a permanent mandatory speed limit of 50 mph or greater.

1.2.3 The application of temporary mandatory speed limits should be considered for all planned works on high speed roads. To help ensure compliance the designer should involve enforcement agencies early in the design of a road works scheme to ensure agreement on enforcement issues and the placement of cameras and signs. The design programme for such works should make provision for the time necessary to obtain the appropriate temporary traffic regulation orders.

1.2.4 Where there is insufficient time to obtain temporary traffic regulation orders under normal procurement procedures consideration should be given to obtaining a traffic order under emergency notice procedures (Section 14(2) of the Road Traffic Regulation Act 1984), or in collaboration with the Police under their powers. Where it is impracticable to obtain a mandatory speed limit consideration should be given to the application of an advisory speed limit. The method for assessing appropriate speed limits is the same for advisory and mandatory speed limits.

1.3 Implementation

The provisions contained within this document should be implemented in the design of all future temporary traffic management arrangements for new works contracts.

2 REDUCTION OF SPEED LIMITS

Implementation of the following measures is intended to produce a temporary traffic management arrangement which will exhibit an accident rate similar to the permanent situation.

2.1 Assessment of Speed Limit Reductions

2.1.1 The designer should identify any geometric and safety feature of the preliminary traffic management design, which fail to achieve the standards of the permanent highway. The designer should include additional measures to directly ameliorate these shortcomings. For example, in contra-flow working, the provision of a temporary barrier between opposing traffic flows can reduce the risk associated with the loss of the central reserve and permanent safety barrier.

2.1.2 When direct measures to ameliorate identified risks are inappropriate or impractical, the imposition of a temporary speed reduction should be considered.

2.1.3 Table 1 shows recommendations for the appropriate speed reduction to limit the risks associated with specific traffic management features. Usually temporary traffic management features are not concurrent, but in such situations the designer would need to weigh the assessed risks to determine whether it was appropriate that a greater speed reduction should be applied. Refer to section 4 for temporary speed reductions associated with relaxations from Chapter 8 standard requirements

Table 1: SPEED LIMIT REDUCTION TABLE

Temporary Traffic Management Feature	Recommended Speed Reduction
Restricted Visibility ⁽ⁱ⁾ - restricted driver forward visibility	20 mph
Loss of Hard Shoulder - used as running lane - closure of HS refuge	20 mph Zero
Loss of Vehicle Restraint Barrier ⁽ⁱⁱ⁾ - without protection - with protection	20 mph Zero
Lane Restrictions ^{(iii)&(iv)} giving rise to enforced lane Changing - other than light flow traffic - light traffic flow	20 mph Zero
Lane Merge ^(iv) - other than light traffic flow - light traffic flow	20 mph Zero
Narrow Lane Width ^(v) - HGV lanes less than 3.3 m and other traffic lanes subject to width restrictions less than 3.0 m	20 mph
Crossovers - determined by design speed	See TD 92 _(11/04)

Notes:

i) For example where a works structure or road works feature is likely to obstruct a drivers forward visibility and the sight line distance is likely to be reduced below the desirable minimum.

ii) Where a vehicle restraint barrier is removed as part of the temporary works from the central reserve and a temporary barrier, or block vehicle equivalent, is not installed, or is installed but does not provide equivalent vehicle restraint, it should be classed as without protection.

iii) Where lane restrictions apply, eg lane closure, weight, width or height restrictions.

iv) Light traffic flow is where the traffic flow is not more than 1200 vehicles per hour per traffic lane left open where the HGV content is less than 10%, or 1000 vehicles per hour per traffic lane left open where the HGV content is between 10% and 30%, or 900 vehicles per hour per lane left open where the HGV content is greater than 30%.

v) Lanes of less than 3.3 metres width that are required to carry heavy goods vehicles, including public service vehicles, or lanes less than 3.0 metres width which are subject to vehicle width restrictions, are to be considered as narrow lanes.

2.1.4 The greatest required speed reduction applicable from Table 1 should be used throughout the site. An exception to this is where the crossover speed limit is lower than at other areas.

2.1.5 Speed reduction should be considered on a case-by-case basis and should involve a site-specific risk assessment. Generally for motorway and dual carriageway roads normally subjected to the national speed limit a temporary maximum speed limit should not be less than 40 mph and for other high speed roads not less than 30 mph.

2.1.6 Temporary speed limits should not be imposed at road works sites for the direct purpose of protecting the workforce. Direct risks to the safety of the workforce should be countered by the presence of vehicle restraint barriers or changes in working methods that eliminate the risks. The presence of vulnerable work operations on foot should be minimised.

2.1.7 If imposed the temporary speed limit should be at least 10mph below the permanent speed limit. It should be used only in circumstances where the need for a maximum speed lower than any mandatory limit is indicated by physical conditions, eg restricted sight lines or substandard alignment, also refer to Table 1.

2.1.8 Temporary speed limits should only be imposed at road works in response to temporary hazards arising from the temporary traffic management arrangement.

2.2 Extent of Speed Restriction

2.2.1 Temporary speed limits should generally be imposed 100 metres in advance of the first sign at road works indicating lane closure, or restrictions, eg the Traffic Signs Regulations and General Directions (TSRGD) diagram 7201, 7202. This ensures that speed restrictions apply to the sector of the temporary traffic management arrangement in which lane changing tends to occur. This is the sector where most accidents occur.

2.2.2 Speed restrictions should extend throughout the works area to a point 100 metres beyond the end of the temporary traffic management arrangement.

2.2.3 In general a speed limit should not be introduced where the length of restriction would be less than 800 metres, measured between the initial speed limit sign and the sign indicating the end of all restrictions.

3. SIGNING ISSUES

3.1 At sites where the length of road affected is 800 metres or longer, repeater signs along the length of the works are required to remind drivers of the maximum speed and ensure better compliance – police will only enforce where signs are correctly installed.

3.2 The police can only enforce speed limits where the maximum speed limit signs conform with the requirements of the TSRGD Regulations.

3.3 Temporary speed limit signs at road works should comply with Table 2.

Table 2: SIGNS FOR TEMPORARY SPEED LIMIT

Types of Road	Terminal Signs	Repeater Signs and Spacing
Motorway and All-purpose Dual Carriageway Roads with Hard Shoulder (NSL, 60 mph and 50 mph)	1500 mm	900 mm at 350 m on alternate sides of the carriageway
All-purpose Dual Carriageway Road without Hard Shoulder (NSL, 60 mph and 50 mph)	1200 mm	900 mm at 350 m on alternate sides of the carriageway
All-purpose Single Carriageway Road (NSL and 50 mph)	750 mm	600 mm at 350 m on alternate sides of the carriageway

Note: Repeater signs on the same side of the carriageway should not be placed further apart than 700 metres

4. CHAPTER 8 RELAXATIONS – Temporary Mandatory Speed Limits

4.1 Restricted Safety Zone

Where the highway width is so restricted as to prohibit the provision of the appropriate lateral safety clearance as required under provisions in Chapter 8 of the Traffic Signs Manual, and diversion of traffic would be impractical, traffic speeds must be reduced to less than 10 mph and an agreed safe method of working imposed on the site. This traffic management technique is known as Convoy Working. For both single and all-purpose dual carriageways a temporary maximum speed limit of at least 20 mph lower than the permanent limit should be imposed in advance of the 10 mph limit. TA 63 provides detailed guidance relating to procedures and signing for Convoy Working. This technique is not applicable for use on motorways.

4.2 Reduced Lateral Safety Zone

On certain major bridges and other structures and in some tunnels the overall width of highway may be limited, making it difficult to maintain an adequate traffic capacity with the full Chapter 8 lateral clearance. In such special cases and with the agreement of the highway authority a reduced safety clearance may be considered in conjunction with the enforcement of a reduced maximum speed limit of 40 mph or less; reference should be made to Chapter 8 for details.