

**DEPARTMENT OF THE ENVIRONMENT,
TRANSPORT AND THE REGIONS**

DETR Circular 05/99
Department of the Environment, Transport & The Regions
Eland House, Bressenden Place, London SW1E 5DU

2 July, 1999

20 MPH SPEED LIMITS

1. Secondary legislation has been made which introduces a new system for applying 20 mph speed limits. The most important element of the new system is the removal of the requirement for local traffic authorities to obtain the consent of the Secretary of State to make orders imposing 20 mph speed limits. The purpose of this Circular, which replaces Circular Roads 4/90, is to set out the procedures to be followed for imposing 20 mph speed limits under the new system.
2. The first 20 mph zones were installed in 1991. Their use has been concentrated mainly in residential areas as a method of improving the UK child pedestrian safety record. Most child pedestrian accidents occur near home. 20 mph zones are best suited to street-lit residential roads where vulnerable road users are likely to be found in greater numbers. On some of these roads a 30 mph limit may be considered too fast because of the greater risk to pedestrians and cyclists, especially children. 20 mph zones may also be particularly appropriate around schools and other sites where children are to be found in large numbers. Zones can protect children walking or cycling to school and encourage others to do so.
3. As well as children, adults walking and cycling in residential areas can benefit from the introduction of 20 mph zones where traffic speed is a danger. Research has shown that pedestrians struck by a vehicle travelling at 20 mph have a far greater chance of surviving than if struck by a vehicle travelling at 30 or 40 mph. Surveys of vehicle speeds show quite clearly that most drivers regularly exceed the 30 mph speed limit. Research by the Transport Research Laboratory (Review of traffic calming schemes in 20 mph zones - TRL Report 215) shows that accidents resulting in injuries are reduced by around 60% and accidents resulting in injuries to children are reduced by about 67% in 20 mph zones.
4. With the experience gained by local authorities of making 20 mph zones, and the considerable volume of research results available on how to make low speed limits work effectively, there is now no need for Central Government to be involved in the process of making new 20 mph zones and limits.

THE CHANGES

5. Until now legislation has prevented speed limits below 30 mph being imposed by local traffic authorities without the consent of the Secretary of State. The Road Traffic Regulation Act 1984 (Amendment) Act Order 1999 (S.I. 1999/1608), which removes the consent requirement for 20 mph speed limits, came into force on 16th June 1999. Consent is still required for all other speed limits below 30 mph. New Road Humps and Traffic

Calming Regulations came into force on 28th April 1999-(The Highways (Road Humps) Regulations 1999 (S.I. 1999/1025) and the Highways (Traffic Calming) Regulations 1999 (S.I. 1999/1026), and a new direction 14A has been inserted in the Traffic Signs General Directions 1994 ('TSGD 1994'). It came into force on 16th June 1999. The combined effect of these instruments is to create a system that allows local traffic authorities to make traffic calmed 20 mph zones or signed only 20 mph limits. In neither case will authorities be required to seek authorisation from the Department.

20 MPH ZONES

6. The key to a successful 20 mph zone is to have in place speed reducing features of a significant number and appropriate design to be able to reduce the speed of most traffic to 20 mph or less without the need for police enforcement. The new direction 14A in TSGD 1994 specifies the extent of the traffic calming measures which must be taken within a 20 mph speed limit zone indicated by the sign shown in diagram 674 of Schedule 2 to the Traffic Signs Regulations 1994 (Part 1 of S.I. 1994/1519) ("the 1994 Regulations"). It is for local traffic authorities to determine the number and type of measures that should be used in each particular case. Previous guidance on the issues to be considered for making effective 20 mph zones remains relevant:
 - a. The establishment of the zone should be consistent with the Authority's road safety plan;
 - b. It should be judged likely that, after engineering measures have been installed, the average speed will be 20 mph or less at representative sites in the zone, i.e. at individual features and at points between measures where speeds are expected to be highest;
 - c. The emergency services must be consulted and their responses taken into account when designing a 20 mph zone (regulation 6 of the Local Authorities' Traffic Orders (Procedure)(England and Wales) Regulations 1996 (S.I. 1996/2489)). In that context, 20 mph zones are unlikely to be appropriate on the approaches to fire or ambulance stations or hospitals, where the casualty reductions to be expected from lower speed may be outweighed by the delay to emergency service vehicles;
 - d. Any school in a proposed zone should be consulted. A 20 mph zone may be an important contribution by the local traffic authority to a School Travel Plan aimed at reducing car use and improving public safety at these schools. The Department expects to issue guidance to local traffic authorities on School Travel Plans shortly;
 - e. Entrances to 20 mph zones should normally be at a junction so that drivers whose destination is not in the 20 mph zone have an alternative route outside the zone. Entrances should be designed so as to give the appearance of passing through a 'gateway' to a more restricted area. 'Gateway' in this context means a physical feature or features (such as engineering measures or landscaping) which alert drivers to the fact that they are entering a 'special' area. All entrances must have a '20 mph zone' sign;
 - f. The type of engineering measures available to reduce traffic speeds to 20 mph are set out in the new direction 14A in TSGD 1994 linking traffic calming measures to 20 mph zones. Road humps are the most common speed reducing feature used in 20 mph zones but road narrowings and raised junctions are also available and, if used in the right combination, can reduce speed sufficiently in a 20 mph zone. The design of a scheme should ensure, as far as possible, that the engineering measures used do not create hazards for cyclists and pedestrians - particularly those with disabilities;
 - g. 20 mph zones were not previously allowed if any part of the zone was more than 1 kilometre from any boundary road or there were no alternative routes available at entry

points for through traffic. These requirements will no longer apply but they remain appropriate as advice which should be followed unless there are very good reasons for not doing so.

7. The new direction 14A specifically links the use of the 20 mph zone sign (sign 674 in Schedule 2 to the 1994 Regulations) to the placing of measures to reduce traffic speeds sufficiently so that an average speed of 20 mph or less can be achieved (this is reproduced at annex A). While the use of repeater signs in 20 mph zones using sign 674 is not precluded by TSGD 1994, they should not be used since the self-enforcing nature of the zones should not require a reminder of the speed limit.
8. On roads which form part of a 20 mph zone the Road Humps Regulations 1999 and the Traffic Calming Regulations 1999 do not require the signing and marking of road humps nor the signing of traffic calming features. These relaxations of the regulations do not apply to roads to which a 20 mph speed limit, indicated by sign 670 in Schedule 2 to the 1994 Regulations, applies.

20 MPH SPEED LIMITS

9. Since the new direction 14A specifically links sign 674 with a system of traffic calming, it follows that 20 mph zones will have to contain speed-reducing features. However, there may be some occasions where traffic speeds are only a little over 20 mph (the best guide being 24 mph or less) and the placing of 20 mph speed limit signs might act as an additional warning signal to drivers so that the required small reduction in speed is likely to be achieved. Certain roads or small groupings of roads in town or village centres which are narrow and contain natural build-outs might be suitable for signed 20 mph limits. It is possible to use traffic calming features in signed 20 mph speed limits but there would be little advantage in doing so in view of the extra signing and lighting requirements that would apply (a diagrammatic illustration of each sign is set out at annex B).
10. Extreme caution should be exercised when considering making 20 mph limits using speed limit signs with no supporting speed-reducing features. The weight of evidence points strongly to signed only 20 mph limits having little or no effect on traffic speeds. The Transport Research Laboratory assessed the effectiveness or otherwise of 20 mph limits that were not self-enforcing (TRL Report 363 Urban Speed Management Methods). While they found that 20 mph zones using engineering measures achieved mean and 85th percentile speed reductions of around 10 mph, the use of static signs in 20 mph limits achieved average speed reductions of about 1 mph and did not significantly reduce accidents.
11. Attention should be paid to the provisions of the Crime and Disorder Act 1998 (c.37) which requires local authorities and the police, with other key agencies and the community, to work together in partnership at district level to develop and implement strategies for reducing crime and disorder in their areas. The Act places a legal obligation on police authorities, probation committees and health authorities to co-operate fully in this work. It is therefore vital within the terms of that Act that local traffic authorities and Highways sub-committees liaise with the local police early in order to agree in advance that the making of a 20 mph speed limit is a practical and effective proposition.

SIGNING OF 20 MPH LIMIT OUTSIDE ZONES

12. Direction 10 of TSGD 1994 prohibits the use of repeater signs on restricted roads, i.e. roads subject to a 30 mph speed limit with a system of street lighting. Repeater signs are compulsory for other speed limits displayed by the use of sign 670 in Schedule 2 to the 1994 Regulations. Signed only 20 mph speed limits must therefore use repeater signs. This has

practical application. 20 mph limits will be applied to roads with existing 30 mph speed limits, very often on restricted roads where repeater signs are prohibited. Unless the 20 mph signs are regularly displayed, drivers could quite legitimately expect the speed limit to be 30 mph.

VARIABLE SPEED LIMITS

13. Local traffic authorities can now make variable mandatory 20 mph speed limits under section 84 of the Road Traffic Regulation Act 1984. These are limits that change between 20 mph and 30 mph depending on the time of day as specified in the speed limit order. It should be noted that when these variable limits were monitored in trials outside schools very little reduction in speed was observed.

PROCEDURE FOR LOCAL AUTHORITIES MAKING 20 MPH SPEED LIMIT ORDERS

14. With the removal of the consent requirement local traffic authorities can now make a 20 mph speed limit order as they would any other speed limit order under section 84 of the Road Traffic Regulation Act 1984 (a sample Order is annexed to Circular Roads 1/93). The procedure for making speed limit orders is laid down in the Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations 1996 (S.I. 1996/2489). The need to consult relevant parties is an important part of the order making procedure. The making of a 20 mph speed limit, and in particular a 20 mph zone, is of importance to the local community and the emergency services. It is vital, therefore, that local residents, District, and, where appropriate, Parish Councils are fully consulted as well as the Fire, Ambulance, Police and, in coastal towns, Lifeboat and Coastguard services. Bus operators and, where appropriate, Passenger Transport Executives, should also be consulted at an early stage.

MONITORING

15. The increased flexibility provided for by the relaxation in the consent requirement should result in a significant increase in the number of 20 mph zones and 20 mph limits, and it would be helpful to know how this has affected driving speeds and the number and severity of accidents. Guidance to local authorities on Local Transport Plans (LTP) requires them to monitor the effects of 20 mph zones and 20 mph limits on traffic speeds and accident numbers. The results of this monitoring should be included in the annual LTP progress reports.

MANPOWER AND RESOURCE IMPLICATIONS

16. The measures outlined in this Circular Roads are additional options for local traffic authorities to use and consequently need have no net manpower or financial implications.

ENQUIRIES

17. Enquiries about this Circular may be addressed to RS2, Department of the Environment, Transport and the Regions (DETR), Zone 2/13, Great Minster House, 76 Marsham Street, London SW1P 4DR (Tel: 0171 676 2028).

R S PEAL, Assistant Secretary

APPENDIX A

REQUIREMENT FOR A 20 MPH ZONE (DIRECTION 14A OF TSRGD) STATUTORY INSTRUMENTS

1999 No.
ROAD TRAFFIC

The Traffic Signs General (Amendment) Directions 1999
Made 15th June 1999
Coming into force 16th June 1999

The Secretary of State for the Environment, Transport and the Regions, the Secretary of State for Scotland and the Secretary of State for Wales, acting jointly in exercise of the powers conferred by section 65(1) of the Road Traffic Regulation Act 1984(a) and severally as respects England, Scotland and Wales respectively in exercise of the powers conferred by section 85(2) of that Act, and of all powers enabling them in that behalf, hereby give the following Directions:

Citation and Commencement

1. These Directions may be cited as the Traffic Signs General (Amendment) Directions 1999 and shall come into force on 16th June 1999.

Amendment of Traffic Signs General Directions 1994

2. (1) The Traffic Signs General Directions 1994(b) shall be amended as follows.
(2) After direction 14 there shall be inserted -

Speed limits of 20 miles per hour

14A.-(1) The sign shown in diagram 674 may only be placed on a road if no point on any road (not being a cul-de-sac less than 80 metres long), to which the speed limit indicated by the sign applies, is situated more than 100 metres from a traffic calming feature.

(2) In paragraph (1) "traffic calming feature" means -

(a) a road hump constructed pursuant to section 90A of the Highways Act 1980(c) ("the 1980 Act") or section 36 of the Roads (Scotland) Act 1984(d) ("the 1984 Act") and in accordance with the Highways (Road Humps) Regulations 1999(e) or the Road Humps (Scotland) Regulations 1998(f);

(b) traffic calming works constructed in accordance with section 90G of the 1980 Act(g) or section 39A of the 1984 Act(h) and in accordance with the Highways (Traffic Calming) Regulations 1999(i) or the Roads (Traffic Calming) (Scotland) Regulations 1994(j);

(a) 1984 c.27. Section 65(1) was substituted by the New Roads and Street Works Act 1991 (c.22), Schedule 8, paragraph 48. Section 85(2) was amended by the New Roads and Street Works Act 1991, Schedule 8, paragraph 62 and section B5(2)(a) was amended by the Road Traffic Act 1991(c.40), Schedule 4, paragraph 30. For the meaning of "the Ministers", see section 142(1).

(c) Part II of SI 1994/1519, to which there are amendments not relevant to these Directions.

(d) 1980 c.66. Section 90A was inserted by the Transport Act 1981 (c.56), section 32(1), Schedule 10 Part I, paragraph 2

(e) 1984 c. 54; section 36 was amended by the Road Traffic Act 1991, Schedule 4, paragraph 38.

(f) S.I. 1999/1025

(g) S.I. 1998/1448; relevant amending instrument is S.I.1999/1000

(h) Section 90G was inserted by the Traffic Calming Act 1992 (c. 30), section 1(2), Schedule 1.

(i) Section 39A was inserted by the Traffic Calming Act 1992 (c.30), Schedule 2.

(j) S.I. 1999/1026

(c) a refuge for pedestrians which was constructed pursuant to section 68 of the 1980 Act or section 27(a) of the 1984 Act after 15th June 1999 and is so constructed as to encourage a reduction in the speed of traffic using the carriageway;

(d) a variation of the relative widths of the carriageway or of any footway pursuant to section 75 of the 1980 Act or section 1(1) or 2(1) of the 1984 Act which -

(i) was carried out after 15th June 1999 for the purpose of encouraging a reduction in the speed of traffic using the carriageway; and

(ii) had the effect of reducing the width of the carriageway; or

(e) a horizontal bend in the carriageway through which all vehicular traffic has to change direction by no less than 70 degrees within a distance of 32 metres as measured at the inner kerb radius.

(3) For the purposes of paragraph (1) the distance of 100 metres shall be measured along roads to which the speed limit indicated by the sign shown in diagram 674 applies.”

Signed by authority of the Secretary of State of State
for the Environment, Transport and the Regions

16 June 1999

Parliamentary Under Secretary of State,
Department of the Environment, Transport and the Regions

St. Andrew's House,
Edinburgh Parliamentary Under Secretary of State,
1999 Scottish Office

Signed by authority of the Secretary of State for Wales

Parliamentary Under Secretary of State,
1999 Welsh Office

EXPLANATORY NOTE

(This note is not part of the Directions)

These Directions amend the Traffic Signs General Directions 1994 so as to insert a new direction 14A limiting the circumstances in which the traffic sign shown in diagram 674 (entrance to 20 miles per hour speed limit zone) may be placed by a traffic authority. The sign may only be placed on a road (other than a cul-de-sac less than 80 metres long) if no point on any road, to which the speed limit indicated by the sign applies, is situated more than 100 metres from a “traffic calming feature” as defined by direction 14A(2).

(a) S.I. 1994/2488; relevant amending instrument is S.I. 1999/1000

ANNEX B

20MPH SPEED LIMITS

TSRGD 670

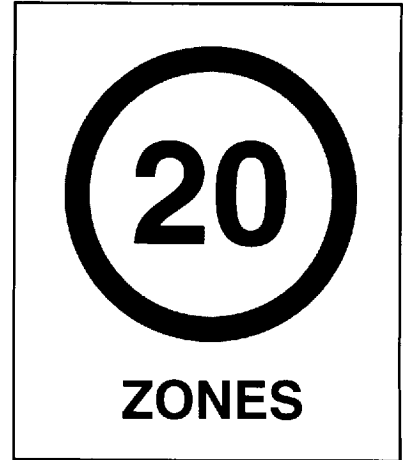


JUST SIGNS

REPEATERS REQUIRED

20MPH ZONES

TSRGD 674



CONTAINS ADEQUATE SPEED
REDUCING FEATURES

SPEED LIMIT SELF ENFORCING
- NO NEED FOR REPEATER
SIGNS AND ADDITIONAL
SIGNING AND LIGHTING
REQUIREMENTS

SPEED REDUCING FEATURES

FEATURES SUBJECT TO
SIGNING AND LIGHTING
REQUIREMENTS

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