



Circular Roads 4/96 .  
(Dept of Transport) .

Circular 32/96 .  
(Welsh Office) .



Welsh Office  
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County Borough Councils   )  
London Borough Councils  
Common Council of the city of London

June 1996

## ROAD HUMPS

1. Road Hump Regulations were first made in 1983. Since then there have been a number of amendments and SI no.1483 1996 is a further relaxation in the requirements. The new regulations are part of the Government's de-regulation initiative and therefore specify only the minimum requirements necessary.

The great flexibility afforded by the new regulations will, however, make local traffic authorities more responsible for the design and placement of road humps, and as such need to ensure that an adequate duty of care is exercised.

## OBJECTIVES

2. The main value of road humps lies in the contribution they can make to the reduction or prevention of road accidents, particularly where the speed of traffic along the road in question has been, or is likely to be, a major factor in accidents on that road. In considering any proposal for the installation of humps, the responsible authority should therefore satisfy itself that, as with any other accident reduction or prevention measure, the result will be effective and will justify the expenditure incurred. An assessment of the traffic flows, vehicle speeds and accident record on the road under consideration should enable an initial conclusion to be reached about the possible benefits for that road of installing humps.

3. However, the consequence of humps may extend beyond the road on which they are constructed. Other roads in the vicinity may suffer some dis-benefit because of changed patterns of traffic caused by drivers using an alternative route or routes to avoid the humped road. For this reason authorities should include in their assessment an evaluation of the likely consequences on traffic flows, traffic speeds and accidents on adjoining roads. Without that wider assessment the true cost-effectiveness of a hump installation cannot be judged. Urban Safety management techniques, providing a structured approach to accident prevention and casualty reduction on urban roads, can help to ensure that adequate consideration is given to these matters.

4. Road humps cannot be expected to solve all speed-related accident problems on all 30mph and sub 30mph roads. Humps may not be necessarily the most appropriate solution for a particular problem. Traffic management and highway powers already exist which provide local authorities with the means to deploy an extensive range of traffic calming and accident prevention measures. Road humps are simply one measure. The choice of humps or some other remedial measure will depend entirely on local circumstances and can be determined only after a full analysis of relevant factors.

#### **ENVIRONMENTAL JUSTIFICATION**

5. There may be some situations where road humps are installed to improve the quality of the environment. We have in mind "rat-runs", where a residential road links two main roads and is used as a convenient thoroughfare by a large proportion of traffic, often at high speeds. The use of road humps in these situations would not only reduce vehicle speeds but also make the road less attractive to those drivers using it as a short cut. However, local traffic authorities should satisfy themselves in such cases that the cost of construction and maintenance is justified in terms of the general public benefit which is likely to be gained. An assessment by the authority of the overall effects on installing humps including any effect on adjoining roads should, of course, still be made.

#### **BUSES**

6. Careful consideration is needed with regard to the installation of road humps along bus routes. The type, height, and location of road humps, as well as the vehicle type will have a bearing on the suitability of using humps. Local traffic authorities will need to consider the balance of advantages between benefits of fewer and less severe casualties because of lower speeds, against the possible increased discomfort to bus passengers, any increased bus maintenance likely to arise, and the effect on the community if the service were withdrawn. Speed cushions can offer a particular advantage to buses, but may not be appropriate for every circumstance.

7. In all cases where it is proposed to install humps on a road used regularly by buses, the operator should be consulted.

8. A potential difficulty arises from the ability of passengers to move about the bus whilst it is moving. Passing over a hump can cause jolting and possibly cause passengers to fall. There may be a greater potential risk close to bus stops, though road humps have been installed in these locations without problems arising. Careful consideration does, however, need to be given where road humps are to be installed in the vicinity of bus stops.

9. Road humps are unlikely to be appropriate on roads only open to buses or in bus lanes. If there are difficulties caused by speed in such circumstances the local traffic authority should, in the first instance, consult the operator(s).

## **20 MPH ZONE**

10. In 20mph zones many of the requirements for signing and speed reducing features are not required.

## **HUMP DESIGN AND LOCATION**

11. Considerable flexibility is now allowed for the design of road hump profiles, permitting a variety of shapes to be used. However, whilst considerable research has been undertaken into the performance of road humps, this has concentrated on a few well recognised shapes, and has not investigated some of the profiles used in other countries. Therefore, caution will need to be exercised if employing unusual profiles. For example, it is strongly advised that road humps of less than 1,200mm length longitudinally should not be higher than 50mm, and often lower heights would be preferable.

12. The maximum and minimum heights referred to in the regulations are absolute values, therefore, a road hump should not exceed 100mm in height, or be less than 25mm in height.

13. Road humps are essentially a means of controlling vehicle speed after the speed of the vehicle has been reduced to the desired level by means of a suitable speed reducing feature, such as a bend or junction. The actual speed level will depend on the particular circumstances. It would be inappropriate to use a road hump without a speed reducing feature where the 85th percentile speed of light vehicles on the immediate approach to the road hump was likely to exceed 30 mph.

14. Road hump schemes should be designed, for both safety and environmental reasons, to promote smooth traffic flow at a speed commensurate with the surrounding activities. The aim should be to minimise the difference between the speed at a hump, and the speed between humps. Research has shown the larger the distance between adjacent humps, the higher the speed is likely to be, and hence the greater the speed difference. Spacing greater than 150m is not recommended, and in many instances spacing much less than this will be appropriate.

15. Traffic Advisory Leaflets previously issued on the technical aspects of road hump design and use are still relevant. However, a further Traffic Advisory Leaflet contains information particularly related to the 1996 regulations.

## **CONSULTATIONS**

16. Many people may be affected by the construction of humps on a road and it is therefore important that the responsible authority should consult widely. Apart from the consultations required under the Act and the Regulations, it may be appropriate, for example, to notify individually the occupiers of properties fronting the section of road to be humped; any nearby factory, hospital or nursing home which may be particularly affected; and operators of services and any operator of a regular bus service should always be consulted. It would be open to any organisation wishing to be notified directly of all proposals to construct road humps in any area to make specific arrangements with the authority or authorities.

## **LOCAL INQUIRIES**

17. Provision is made in Section 90C of the Highways Act 1980 (the 1980 Act hereafter) for a local inquiry to be held into any proposal by the Secretary of State or a local traffic authority to construct road humps. The decision whether or not to hold such an inquiry is a matter for the discretion of the Secretary of State or the responsible local traffic authority in individual cases. Inquiry procedure rules have been prepared under Section 11 of the Tribunals and Inquiries Act 1971 - these inquiries have been added to the Schedule to the Tribunals and Inquiries (Discretionary Inquiries) Order 1975 - and they will apply directly only to inquiries held by the Secretary of State. However, local authorities will be expected, in the interests of natural justice, to adopt the same procedures for their own inquiries.

## **HUMPS ON HIGHWAYS WHICH ARE NOT MAINTAINABLE AT PUBLIC EXPENSE**

18. The Road Hump Regulations apply to humps constructed on any highway, maintainable at the public expense. Responsibility for ensuring that highways are not obstructed rests with the appropriate traffic authority. It is known that humps have been constructed on a number of privately maintained highways: the responsible Authority or owner will need to consider for themselves what action should be taken in respect of these humps. Non-conforming humps do not enjoy the protection from liability under highway law which is afforded by Section 90E of the 1980 Act to humps constructed in accordance with the Regulations.

## **MAINTENANCE OF HUMPS AND THEIR MARKINGS**

19. Section 90E of the 1980 Act provides that a road hump shall not be treated as an obstruction to the highway provided it conforms to the Regulations. It is important, therefore, when carriageways with road humps are resurfaced that following this action the height of the humps remain within the maximum and minimum heights permitted. Traffic signs (including markings) should be regularly inspected to ensure their effectiveness. The Department is ready to give advice on matters relating to road humps. Non-technical questions, relating to interpretation of the Regulations, and the enabling provisions in the Highways Act 1980 should, in the first instance, be addressed to RS Division, Room 2/13, "Great Minster House, London SW1P 3DR, Telephone (0171) 271-4755. In Wales, contact Transport Policy 1b, Welsh Office, Cardiff, Telephone (01222) 761 456 Ext 5251.

## RELEVANT TRAFFIC ADVISORY LEAFLETS

Traffic Advisory Leaflet 7/96, Highways (Road Humps) Regulations 1996  
Traffic Advisory Leaflet 4/94, Speed Cushions  
Traffic Advisory Leaflet 7/94, "Thumps", Thermoplastic Road Humps  
Traffic Advisory Leaflet 2/96, 75mm High road Humps (to be published)  
Traffic Advisory Leaflet 4/96, Traffic management and Emissions (to be published)  
Traffic Advisory Leaflet 6/96, Traffic Calming: Traffic and Vehicle Noise (to be published)

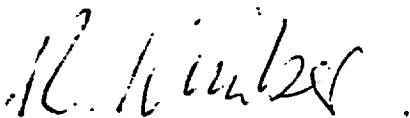
### Leaflet Enquiries:

Driver Information and Traffic Management Division  
3/23, Great Minster House  
76, Marsham Street  
London SW1P 4DR  
Tel: 0171 271 5169 (answer phone)

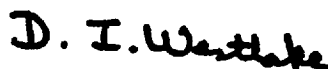
### Technical Enquiries:

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This Circular Roads supersedes Circular Roads 3/90 and Welsh Office Circular 54/90.



R M KIMBER  
ROAD SAFETY



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