



CIRCULAR ROADS 4/90

2 MARSHAM STREET LONDON SW1P 0EB

FAX 071-276 0818
TELEX 22221 DOEMAR-G
DIRECT LINE 071-276
SWITCHBOARD 071-276 3000
GTN 276

The Chief Executive
County Councils) in England
District Councils)
London Borough Councils
Common Council of the City of London

My Ref:

Your Ref:

19 December 1990

Dear Sir

20MPH SPEED LIMIT ZONES

1. The purpose of this Circular Roads is to set out basic guidelines for the introduction of 20mph speed limit zones, and to explain the procedure for consent by the Secretary of State for such a speed limit.
2. Reduced speed on appropriate roads can make a major contribution to the target of reducing road casualties by 1/3rd by the year 2000. By giving all road users the time to react the combination of a low speed limit and self-enforcing speed reducing measures will reduce both the number of accidents and the severity of injuries. Experience in other countries, particularly in Northern Europe, has pointed the way to speed reduction in residential areas. The roads most suitable will be residential access and local distributor roads. The new signing should create a "gateway" effect when associated with other measures so as to make drivers feel that the 20mph zone is special. Once in the zone other engineering measures such as road humps will continue this impression and enforce the lower speeds required.
3. Local highway authorities will be able to identify some areas that are evidently suitable to be made into 20mph zones. However the introduction of a zone should not usually be considered in isolation but rather as one part of a programme of Urban Safety Management. The Urban Safety projects managed by the Transport and Road Research Laboratory demonstrated that it is possible to direct through traffic onto appropriate roads using engineering measures. A large number of roads are then left which do not need to carry through traffic: these roads are prima facie suitable for 20mph limits. Detailed guidance on Urban Safety Management has been developed by the Institution of Highways and Transportation.¹

¹ *Urban Safety Management Guidelines.*
From IHT, 3 Lygon Place, Ebury Street, London SW1P 0JS, to be published shortly

4. Pedestrians are much more likely to survive impact with a vehicle at 20mph than at 40mph. It is hoped that speed reductions will particularly benefit child pedestrians where the UK has a poor accident record. An examination of pedestrian accident distribution will show that, whilst there are some sites where accidents cluster, many, including the majority of child pedestrian accidents, are scattered. However they are not scattered evenly across the whole urban area but group in particular parts. These are the sorts of locations where 20mph zones are most appropriate and where the cost of introduction may be justified on casualty reduction benefits alone.

CONSULTATION

5. Consultation is important. There are statutory requirements to advertise speed limit orders and to consult representative organisations on road humps. However local highway authorities will want to consider wider consultation on the range of measures proposed. Implementation of these zones is likely to have a major impact on the area covered. Local residents in particular should be consulted as should District and, where appropriate Parish Councils. It is particularly important that Fire, Ambulance, Police (and, in coastal towns Lifeboat and Coastguard services) are consulted - it will be most useful if consultations are begun at an early stage to ensure that the best possible arrangements may be achieved. Bus operators and, where appropriate, Passenger Transport Executives should also be consulted at an early stage of any scheme.

RESPONSIBILITY FOR 20MPH LIMITS

6. The order making functions for a 20mph speed limit lie with local highway authorities. However, before any such order can be made the consent of the Secretary of State must be obtained (As required by Schedule 9, Part II, paragraph 13(1)(d)(ii) of the Road Traffic Regulation Act 1984). This has seldom been granted in the past because the lowering of a speed limit has not necessarily produced lower vehicle speeds. The Department will now consent when speed reducing engineering measures have been proposed and any proposal meets in broad part the guidelines outlined in this document. Apart from the consent provisions the procedure for making a 20mph speed limit order is the same as for other speed limits.

GUIDELINES

7. Applications for consent to a 20mph speed limit order will be assessed against the following criteria:-

- a. 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 20mph or below at representative sites in the zone. (See Annex B for an explanation of representative sites). [The average speed has been selected, rather than the 85th percentile because of the lack of UK experience in engineering a 20mph zone. The Department does not wish to make the guidelines so onerous as to discourage local highway authorities from introducing them. However, designers should aim to achieve an 85%ile speed of 20mph or below. As experience builds up this should be easier to achieve.]
- c. 20mph zones will be appropriate on access and local distributor roads. They will usually be in residential areas but other areas, such as shopping streets, may be suitable.
- d. The emergency services must have been consulted and their responses included with the submission to the Department of Transport of the draft Speed Limit Order. In this context,

it is important that zones are not too large and it is therefore unlikely that a 20mph zone will be approved if any place within it is more than 1 kilometre by road from the zone boundary. In most cases it is expected that the maximum distance to a road of higher speed limit will be much less. 20mph 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 and inconvenience to the emergency services vehicles.

e. Entrances to zones should normally be at a junction so that drivers whose destination is not in the 20mph zone have an alternative route available on roads 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 should have a speed limit zone sign.

f. There are a variety of engineering measures available to slow traffic down, such as narrowings, road humps, raised junctions, speed tables and mini-roundabouts. Often the best results are obtained when measures are attractively designed, vary in nature one from another, and are combined with planting. Where road humps are to be used without the signing and marking required in 30mph limits, the method used to distinguish them should make them conspicuous both by day and by night and be effective in all weather conditions. The design should ensure that the engineering measures used do not produce hazards for cyclists or pedestrians - particularly people who have a visual or mobility handicap.

SIGNING

8. To emphasise the special nature of 20mph zones the Department has designed new entry and end of zone signs. Illustrations are at Annex D. They differ considerably from normal terminal signs associated with speed limits, as they consist of a speed limit roundel on a white ground with the addition of the word "zone". At the bottom there is a space for a name - of an area, district, street, etc. The background space may be in any colour save red, dark green or yellow, and the symbols and lettering used do not have to be in the standard Transport Alphabet. (When designing this part of the sign the needs of people with colour blindness should be considered.) In streets where a name is not required the panel may be omitted: however the Department recommends that it be included wherever possible to reinforce the message that these zones are places where people live as much as roads along which they and others travel.

9. The entry and exit signs are not currently part of the Traffic Signs Regulations and General Directions (TSRGD) and need to be specially authorised by the Department of Transport. For that purpose plans of the locations will be needed. Details of the number of copies, etc are at Annex C. In due course the signs will become part of the TSRGD and there will then be no need for special authorisation.

10. Signs will need to be installed at every entry to the 20mph zone, and should be used in conjunction with other measures to emphasise the "gatewaying" of entry points. They should not be repeated within the zone. Exits from the zone will need to have the end-of-zone sign, which shows the speed limit for the adjoining road. Locations of these signs will need to be marked on plans sent with the request for consent to the creation of the zone.

PROCEDURE

11. (a) The local highway authority should select an appropriate scheme area and submit a proposal to the Secretary of State (Department of Transport, Road Safety Division, Room C17/08, 2 Marsham St, London, SW1P 3EB). The proposal should clearly show the proposed engineering measures and speed measuring sites. (At Annex A is a checklist to be included with the application)

(b) If the Secretary of State is satisfied that the proposal meets in broad part the guidelines set out in these criteria consent to the speed limit order will granted for 18 months from the date when works are expected to start. The 18 month order is intended to allow a reasonable time for the engineering measures to be installed and adjusted to ensure compliance with the limit. The period of eighteen months is likely to be too short to assess any accident consequences. The intention is simply to give sufficient time to ensure that the speed of vehicles complies with the guidelines. The consent will relate to the making of a 20mph speed limit order and to the signs. The Department does not have the resources to consider any proposed engineering measures in detail without causing undue delay. The consent to the limit should not therefore be taken as implying approval of any engineering measure.

(c) There will be some areas where traffic speeds already meet the guideline at paragraph 7(b). For example where inner city residential areas have been environmentally upgraded. In these circumstances the LHA can apply for an immediate permanent authorisation. Details of speed at representative sites, together with a plan showing those sites should be included with the application.

(d) Fifteen months after the temporary speed limit order has been made, the LHA should normally request a permanent consent. This request should include an appraisal of the effectiveness of the measures installed. In particular, there should be a statement of any identified effect on the frequency and seriousness of accidents and on the average speed of vehicles in the zone measured at representative sites. If the results are satisfactory a permanent consent will be given before the temporary consent expires. It is likely that if the engineering works have not been completed, the order for the limit will not be renewed, and the signs will need to be removed. The Department will consider requests for an extension to the temporary consent where further works are being done in order to achieve the required speeds.
12. Traffic regulation orders needed to control parking might be part of an overall design of a 20mph zone. However, these should be processed in parallel and separately from the 20mph order.
13. A checklist is included at annex C to ensure that a full set of documents is sent. Failure to do so will delay consents.

ASSESSING THE COSTS AND BENEFITS OF 20MPH ZONES

14. LHA's will want to estimate the likely costs and benefits of any potential 20mph zone, to establish whether it is cost-effective when compared to other casualty reduction measures. A full cost benefit analysis may not be possible because many of the variables are unquantifiable. However, a balance sheet approach could be used. Among the costs and benefits to be considered are:-

COSTS: Resource and capital costs of introducing the zone.
Maintenance costs of engineering measures.
Possible Increased travel time within the zone for residents and emergency services.
Congestion costs on alternative routes which will be taken by any through traffic which currently crosses the zone.

BENEFITS: Reduced Casualties
Reduced through traffic flows
Achievement of Road Safety plan objectives
Reduced vehicle emissions
Reduction in perceived risk
Improvements in the general amenity and environment of the area

MONITORING

15. In the early stages the Transport and Road Research Laboratory will be monitoring the introduction of 20mph zones and some local authorities may be asked for extra information at the time the request for consent is made. An indication of the sort of information that might be required is at Annex E.

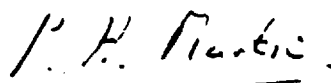
MANPOWER AND RESOURCE IMPLICATIONS

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

DISTRIBUTION

17. Distribution enquiries should be made to NGAM Division, Room 3/11, 2 Monck St, London SW1P 2BQ, Telephone (071) 276 2730.

Yours faithfully



P H Martin
Road Safety Division

CRITERIA CHECK LIST

Highway Authority:-

Scheme Name:-

YES NO

- i) Vehicle speeds already comply with guideline.
- ii) The zone only covers residential local distributor or access roads.
- iii) Accident data is available by road user type and severity for last three years.
- iv) Emergency services have been consulted. (Fire, Police, Ambulance, etc).
- v) No part of the zone is more than 1 kilometre by road from the zone boundary
- vi) The zone does not include the approach to a fire station or hospital
- vii) There are alternative routes available at entry points for through traffic.

Signed

Date

SITES AND METHODS FOR SPEED MEASUREMENT

1. **Criteria:** Speeds should be taken at the speed reducing measure, and a point between that measure and the next measure downstream. (The average of these speeds should not exceed 20mph.) Measurements must be taken at least 4 weeks after installation. The 2 sites make up a "representative site" as referred to in the draft guidelines.

2. **Location:** The between sites measurement should be made where speeds are expected to be highest. This will usually be midway between the speed reducing measures with the largest separation. In some cases, however, other factors (such as gradients) may make another section more appropriate.

3. **Frequency:** There will not be a need to take speed measurements on every road. Where an area has roads of similar type and width, speed measurement will only be required on the road which has the largest separation between speed reducing measures. Up to 5 roads of similar type may be considered together. Every set of 5 similar roads will need to be assessed with at least one pair of speed measurements.

4. **Types:** Where a mixture of speed reducing measures is installed, each type of measure will need to be assessed separately.

5. **Times:** Speed measurements should generally be made at times when traffic is flowing freely such as between 10:00am to 12:00pm or 2:00pm to 4:00pm on normal Monday to Thursday weekdays (ie not Fridays, weekends or bank holidays), in reasonable weather conditions (ie not snow or pouring rain etc).

6. **Numbers:** The speed should be measured for at least 100 light vehicles, in both directions or in the case of very light traffic flows for 2 hours. Heavy vehicles, motorcycles and cycles should not be included in the measurements. Each measured vehicle should be travelling unhindered; ie not following another vehicle or in any other way slowed by an unusual event.

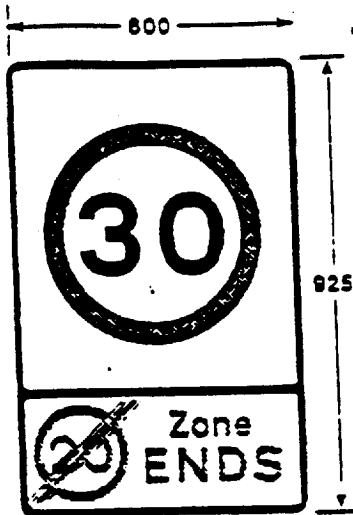
**DOCUMENTS TO BE SUBMITTED TO THE SECRETARY OF STATE
IN SUPPORT OF AN APPLICATION FOR CONSENT TO THE
INTRODUCTION OF A 20MPH SPEED LIMIT ZONE**

| | No. of Copies |
|--|----------------------|
| 1. The draft speed limit order | 3 |
| 2. A 1:2500 plan showing the location of the engineering measures, speed monitoring sites and the speed limit zone and end of zone signs. | 7 |
| 3. A written description of signs location with Grid References | 7 |
| 4. A separate diagram of each of the signs, including sizes, colours and any wording used. (These should be separate drawings and not part of the 1:2500 plan) | 7 |
| 5. The completed criteria check list, including the statement of compliance with those guidelines. | 3 |
| 6. Comments of the emergency services and Bus operators | 1 |
| 7. Casualty statistics for the zone for the past three years | 3 |

DOCUMENTS REQUIRED 15 MONTHS AFTER AUTHORISATION

1. Draft speed limit order
2. The date on which engineering measures were completed
3. A summary of average speeds at representative sites.
4. A 1:2500 plan showing the sites of signs to be authorised permanently (if different from sites in the original authorisation).

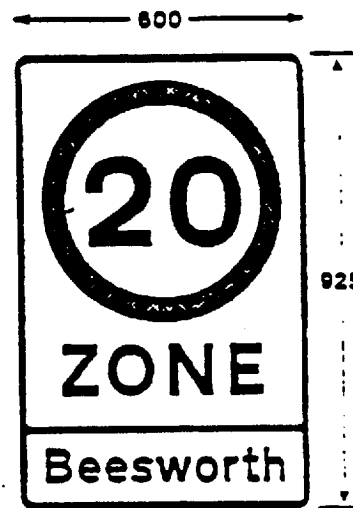
SIGNS FOR 20MPH SPEED LIMIT ZONES



675

End of a 20mph speed limit zone

| Item | |
|------|--|
| 1 | Regulations: None |
| 2 | Locations: 7, 9 |
| 3 | Diagrams: None |
| 4 | Formulas/variables: None |
| 5 | Illumination requirements: Schedule 17, item 11 |



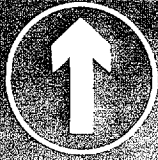
674

Entrance to a 20mph speed limit zone

| Item | |
|------|---|
| 1 | Regulations: None |
| 2 | Locations: 7, 8 |
| 3 | Diagrams: None |
| 4 | Formulas/variables: Schedule 16, item 18 The plate name may be omitted. The street name may be in any style of lettering. Any colour except red may be used for the plate name and the background of that part of the sign. |
| 5 | Illumination requirements: Schedule 17, items 10, 11 |

MONITORING OF SCHEMES: INFORMATION THAT TRRL MIGHT REQUEST

- (a) Present average speeds at each pair of representative sites, including where, when and how speeds were measured.
- (b) A description of speed measurement method to be used for the moving vehicle speeds after the speed reducing measures have been installed.
- (c) The traffic flows in a sample of roads in the proposed 20mph zone and on the surrounding main road network.
- (d) Information on parking in the area including the extent of any commuter parking.
- (e) A summary of the anticipated side effects of the speed reducing measures; i.e. by how much they might lead to a reduction in the amount of parking available or how many sites might have more difficult access, how many residents might be affected by restricted access, etc.
- (g) A summary of any bus services which at present cross the proposed zone.



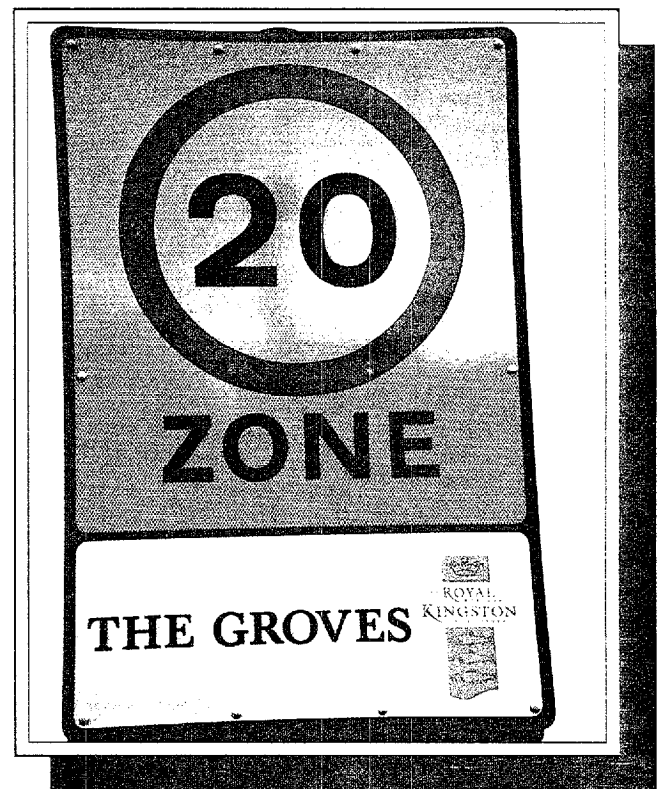
20MPH SPEED LIMIT ZONES

Summary - This leaflet illustrates the main steps in the procedures for the implementation of 20mph zones. It provides brief details on: the approval process of 20mph zones; the signing for such zones; possible speed restraint features.

Introduction - Until recently it has been thought inappropriate for the Secretary of State for Transport to use his powers to permit the imposition of 20mph speed limits, because drivers have not been willing to obey them. However, experience in other countries has indicated that low speed limits coupled with self-enforcing speed restraint measures can reduce both the number of accidents and their severity.

In this country the Urban Safety Project on area wide safety management included self enforcing speed restraint measures. It produced encouraging results, with a 13% accident saving. Detailed guidance is now available in the Institution of Highways and Transportation's Urban Safety Management Guidelines. Increased flexibility in the use of road humps has been provided by the Highways (Road Humps) Regulations 1990.

Following the strengthening of guidance and changes in the regulations, the Department of Transport issued Circular Roads 4/90 in December 1990. It sets out basic guidelines for the introduction of 20mph speed limit zones.



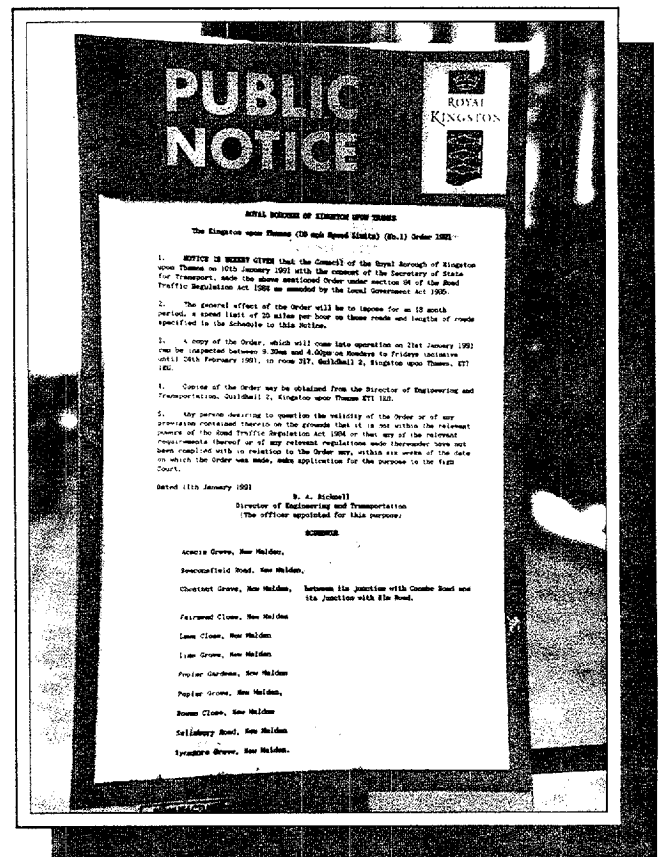
Appropriate areas - 20mph zones are most appropriate in areas where an urban safety strategy has been developed, involving measures to discourage through traffic from using the proposed zone. The zone itself will normally be residential in character, although other areas such as shopping streets may also be appropriate. The road network within the zone should generally consist of access roads, but the inclusion of some local distributor roads may be acceptable. In order that zones do not become too large, no road within the zone may be more than 1km from the boundary of the zone.

The greatest benefits are likely to be achieved in urban areas where there are accidents involving pedestrians, particularly children. These areas should be given a higher priority than others in safety strategy plans.

Accidents in residential areas tend to be widely scattered, and justifying the zone on accident savings alone can be difficult. It may therefore be desirable to seek additional benefits by integrating the 20mph zones into environmental and housing improvement schemes. There is no reason why new residential developments should not be designed from the outset as an integral 20mph zone, providing the various requirements can be met.

Consultation - Highway authorities should consult widely. In the case of road humps, consultation is a requirement of the regulations. Those to be consulted should include local residents, local district councils, bus operators, the police, and fire and ambulance services. It is advisable to consult all these, and any other relevant bodies in the area, at a very early stage. This should be before the zone area has been determined, and at a stage when options for the type of speed restraint facilities that might be used are still open.

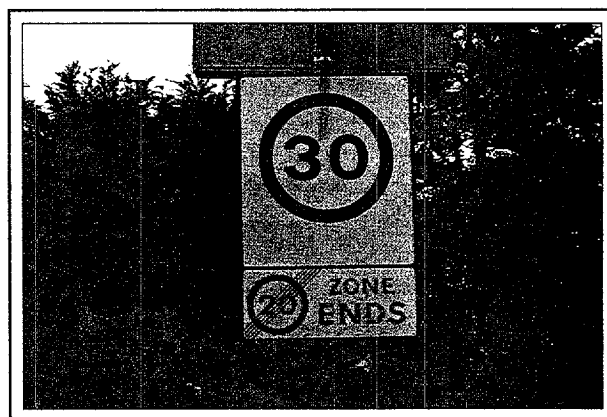
Advertising - There are statutory requirements to advertise speed limits (Regulation 6 of the Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations 1989 (S.I.1120 1989)) and road humps (section 90C of the Highways Act 1980). These involve the posting of notices in the roads concerned, as well as advertising in newspapers. Where road humps would not comply with the Highways (Road Humps) Regulations other than by reason of the 20mph zone, care will need to be taken that correct procedures are followed. Generally, consent from the Department of Transport for the 20mph zone will need to be obtained before advertising road humps.



Signing - Zone signs must be erected at every entrance to the zone. At exits, a zone sign indicating the speed limit of the adjoining road must be displayed.

Full details of the zone signs are given in Circular Roads 4/90. The sign consists of a speed limit roundel on a white ground with the word "zone" positioned beneath the roundel. Beneath the main part of the sign, a panel has been included so that the name of the District or Area can be added. The background to this lower area may be in any colour other than red, provided it contrasts with the letter colouring; the name may be in any typeface or alphabet. It is desirable to include the name, as this reinforces the message that the zones are places where people live.

The zone sign is only required to be erected on one side of the entry road where the road is less than 5 metres wide. However, it is recommended that even in these situations signs should be placed on both sides of the road. This helps to accentuate the gateway effect and the feeling for the driver of entering an area which is "different". 20mph repeater signs are not required within the zone. The Highways (Road Humps) Regulations permit all warning signs normally required for road humps to be omitted.



Gateways - Careful attention should be given to the creation of a "gateway effect" at all entrances to the zone. The erection of the zone signs will help to establish a gateway, but, by themselves, the signs will normally not be sufficient to create a gateway effect. A change in the surface texture of the carriageway at the immediate entrance is one way of complementing the signs. If speeds need to be reduced at this point, such a change may not be sufficient on its own. Narrowing the carriageway at the entry point can emphasise the fact that a driver is entering an area of special character, but again may not on its own reduce vehicle speeds.



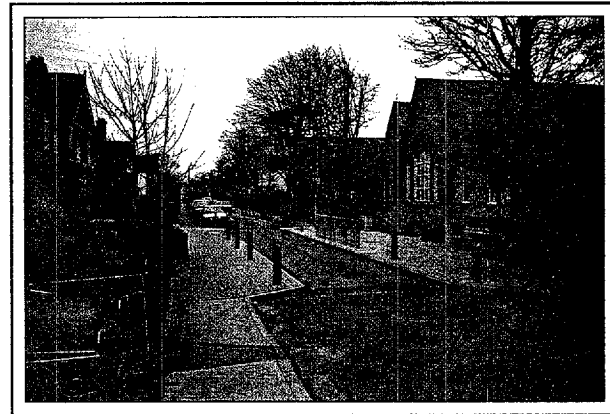
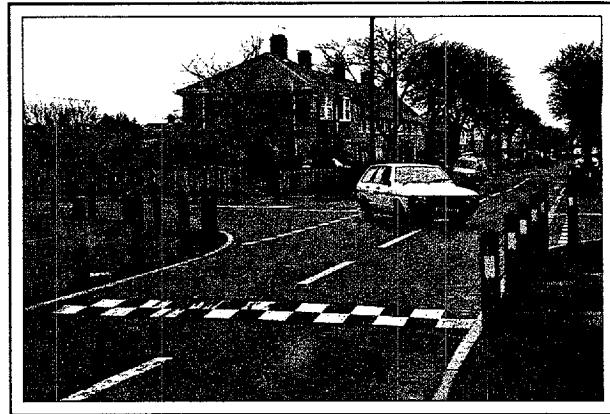
To ensure a reduction of vehicle speeds at the entry point, a narrowing needs to be combined with a road hump. At such a location a flat top hump might be most appropriate, since it would serve as a guide to where pedestrians should cross. More elaborate architectural features, perhaps incorporating planting, could also be used. With such features, care must be taken to preserve adequate sight lines, and to avoid any structures or narrowing becoming obstructions or potential hazards because of their proximity to the carriageway.



Within the zone - A decision on whether to finally confirm a 20mph zone would be taken approximately 15 months after initial consent had been granted. The main requirement that has to be satisfied before permanent consent is granted is that average speeds, measured in accordance with Circular Roads 4/90, do not exceed 20mph. It is therefore important in the initial design to avoid long straight sections of roads, as this encourages higher speeds.

Arrangements such as mini-roundabouts, road closures, the incorporation of sharp bends, and staggered parking can be used to break up the driver's view of straight continuous stretches of road, and so influence the speed of vehicles. To ensure average speeds of 20mph are not exceeded, in most cases vertical deflections in the form of road humps, including raised junctions and speed tables, will be necessary. Horizontal deflections, such as narrowings and chicanes, have also been used, both alone and in combination with vertical deflections. These features require close spacing, in the region of 40m to 60m, in order to sustain average speeds of 20mph throughout the zone.

Aesthetically it is preferable that a range of measures are used, rather than relying on one type of device. A change of material and colour of the road surface can be attractive, but unless provided in conjunction with a hump or chicane will seldom influence vehicle speeds. Planting can add to the impression that a street is not predominantly for the use of motorists, but care should be taken that acceptable sight distances are maintained. Using significantly restricted visibility to try to influence vehicle speeds is not recommended.



Visually impaired people - It is important that blind and partially sighted people are not placed at risk from the use of particular traffic calming measures. At raised junctions and where kerb to kerb flat topped road humps are used in conjunction with pedestrian crossing places, visually impaired people should be able to differentiate between the carriageway and the footway. Advice on the use of tactile paving at uncontrolled crossing places is available from the Department's Disability Unit, and is relevant to some situations arising in 20mph zones.

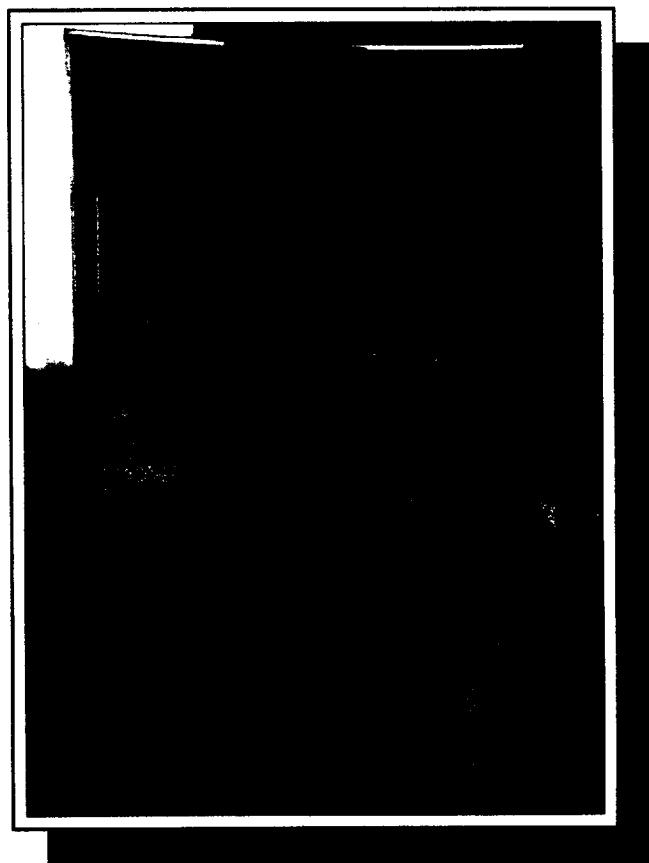
Appropriate areas - 20mph zones are most appropriate in areas where an urban safety strategy has been developed, involving measures to discourage through traffic from using the proposed zone. The zone itself will normally be residential in character, although other areas such as shopping streets may also be appropriate. The road network within the zone should generally consist of access roads, but the inclusion of some local distributor roads may be acceptable. In order that zones do not become too large, no road within the zone may be more than 1km from the boundary of the zone.

The greatest benefits are likely to be achieved in urban areas where there are accidents involving pedestrians, particularly children. These areas should be given a higher priority than others in safety strategy plans.

Accidents in residential areas tend to be widely scattered, and justifying the zone on accident savings alone can be difficult. It may therefore be desirable to seek additional benefits by integrating the 20mph zones into environmental and housing improvement schemes. There is no reason why new residential developments should not be designed from the outset as an integral 20mph zone, providing the various requirements can be met.

Consultation - Highway authorities should consult widely. In the case of road humps, consultation is a requirement of the regulations. Those to be consulted should include local residents, local district councils, bus operators, the police, and fire and ambulance services. It is advisable to consult all these, and any other relevant bodies in the area, at a very early stage. This should be before the zone area has been determined, and at a stage when options for the type of speed restraint facilities that might be used are still open.

Advertising - There are statutory requirements to advertise speed limits (Regulation 6 of the Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations 1989 (S.I.1120 1989)) and road humps (section 90C of the Highways Act 1980). These involve the posting of notices in the roads concerned, as well as advertising in newspapers. Where road humps would not comply with the Highways (Road Humps) Regulations other than by reason of the 20mph zone, care will need to be taken that correct procedures are followed. Generally, consent from the Department of Transport for the 20mph zone will need to be obtained before advertising road humps.



Procedures - Circular Roads 4/90 should be consulted for the precise procedures to be followed when making an application for a 20mph speed limit zone. However, the following points are particularly relevant:-

- Proposed schemes must be submitted to:

Road Safety Division
Department of Transport
Room C17/08
2 Marsham Street
LONDON, SW1P 3EB

- Schemes should indicate that with the self-enforcing measures proposed, average speeds of 20mph or less measured in accordance with Circular Roads 4/90 will be achieved.
- Responses from the emergency services and if relevant, bus operators, regarding the proposed scheme must be included in the application for consent.
- As far as possible, draft speed limit orders should follow the format recommended by the Department of Transport in a model order - available from the address above, Tel. 071-276 6321.
- The scheme should be consistent with the highway authority's road safety strategy.

20mph zones implemented - The first 20mph zones were opened in Norwich, Kingston and Sheffield on 21 January 1991. Early indications suggest that the schemes are working satisfactorily. Further Traffic Advisory Leaflets describing schemes that have been implemented will be published in due course.

Further guidance

Circular Roads 3/90 - Road Humps (Available from DTp, NGAM Division, Tel 071-276 2730)

Circular Roads 4/90 - 20mph Speed Limit Zones (Available from DTp, NGAM Division, Tel 071-276 2730)

Traffic Advisory Leaflet 2/90 - Speed Control Humps

Traffic Advisory Leaflet 3/90 - Urban Safety Management

Model speed limit order (available from DTp, Road Safety Division, Tel. 071-276 6321)

"Guidelines on Urban Safety Management" - The Institution of Highways and Transportation

The Highways (Road Humps) Regulations 1990 (S.I. 1990 No. 703 and S.I. No. 1500).

The Highways Act 1980 - Sections 90A - F (see Schedule 10, Transport Act 1981)

The Traffic Signs (Speed Limits) Regulations and General Directions, 1969. S.I.No.1487

The Traffic Signs (Amendment) Regulations 1990 and the Traffic Signs (Amendment) General Directions 1990 (S.I.1990 No. 704)

