WILTSHIRE POLICY ON 20 MPH SPEED LIMITS AND ZONES

1.0 Purpose of report

1.1 To set out how 20mph speed limits and zones will be applied in Wiltshire following the publication of DfT Circular 01/13 Setting Local Speed Limits in January 2013 and the results of Wiltshire Council's own 20mph rural village trials.

1.2 This policy sets out the background and criteria to be used for 20mph speed restrictions.

1.3 This policy does not cover part time 20mph restrictions such as those outside schools.

2.0 Background

20mph Zones

2.1 20mph "Zones" are defined as areas subject to a 20 mph speed restriction which cover a number of roads and are supported by the appropriate traffic order and signs. In order to ensure that speeds remain consistent with the posted limit these roads will typically employ traffic calming measures located at regular intervals throughout the zone. By definition, the design of 20 mph zones can vary in detail, however they should be 'self-enforcing' and comply with the Traffic Sign Regulations and General Directions 2002. Depending on the local environment, a range of vertical and horizontal engineering features, as well as other measures, may be used. Examples of vertical deflections include road humps & raised junctions. Horizontal deflections include build-outs, chicanes & pinch points. The restriction is indicated by signs at the beginning and end of the zone. Repeater signs are not legally required, however they may be used in particular circumstances.

2.2 Nationally 20mph zones have proved to be extremely effective in reducing both speed and road casualties. The first widespread evaluation of 20mph zones in the UK was carried out by the TRL in 1996. It found that over the monitoring period, injury accidents reduced by 60% and child injury accidents were reduced by some 67%. A similar positive picture on their use is reflected in Wiltshire, which currently has over 75 operational zones.

2.3 Its important to note that despite their advantages, 20mph zones are not welcomed by all as the features intended to slow traffic can in themselves be seen as detrimental to the character and appearance of an area, cause an increase in vehicle noise, a rise in exhaust emissions, and cause ground borne vibration to occur in adjacent properties. There are also criticisms they can increase overall response time for emergency services.

20mph speed limits

2.4 20mph limits are defined as streets where the speed restriction has been reduced to 20mph but where physical calming measures are not employed to enforce the necessary

speed reduction. Drivers are alerted to the restriction by the use of terminal and repeater signs only. Almost all of the research into 20 mph limits indicates they generally lead to relatively small reductions in 'mean' speed (1-2mph); as such they are most appropriate for roads where the average traffic speeds are already low. In order to ensure general compliance, the current guidance from the DfT (01/13) suggests they should only be considered for use on roads where mean speeds are already 24mph or less and where the layout and character of the road gives a clear indication to drivers that a lower speed is appropriate.

2.5 20mph local speed limits have to date, been normally applied to individual or a small number of roads; however they are being increasingly being applied area wide to larger residential or built up environments. Whilst there is no requirement for physical traffic calming, lighter touch engineering measures may be specified in isolated areas where average speeds consistently remain above 24mph. The likelihood of significant speed alterations remains poor, in such circumstances.

2.6 Early evidence from a number of local highway authority pilot studies appears to further reinforce the DfT findings that 20mph limits are significantly less effective in reducing speeds and road casualties than zones. Data from a number of area-wide 20mph limits without traffic calming, such as Oxford, Bristol and Warrington demonstrated an overall reduction in mean speeds of between 0.4 mph to 1.3mph where existing speeds are 24mph or less. This relatively low level of speed reduction appears to be broadly typical across all sites where 20mph limits have been introduced.

2.7 In 2011 Wiltshire undertook its own 20mph limit trials at a number of selected rural villages, all of which were previously subject to 30mph restrictions. Approximately 12 months post implementation the mean speed across all the sites reduced by an average of 1.6 mph from 24.6 mph to 23 mph. It is too early to evaluate the effect of the new limits on collision rates; however this should become clearer in the next few years following regular monitoring and trend analysis. Despite some reported reductions elsewhere in the country, there still appears to be little conclusive or proven statistical evidence that overall casualty rates have fallen following the introduction of 20 mph limits.

3.0 **Department for Transport guidance**

3.1 The key points from Circular 01/13 with regard to 20mph speed limits and zones are set out below;

Para 85. Successful 20 mph zones and 20 mph speed limits are generally self-enforcing, i.e. the existing conditions of the road together with measures such as traffic calming or signing, publicity and information as part of the scheme, lead to a mean traffic speed compliant with the speed limit. To achieve compliance there should be no expectation on the police to provide additional enforcement beyond their routine activity, unless this has been explicitly agreed.

Para 86. Evidence from successful 20 mph schemes shows that the introduction of 20 mph zones generally reduces mean traffic speed by more than is the case when a signed-only 20 mph limit is introduced. Historically, more zones than limits have been introduced.

Para 95. Research into signed-only 20 mph speed limits shows that they generally lead to only small reductions in traffic speeds. Signed-only 20 mph speed limits are therefore most

appropriate for areas where vehicle speeds are already low. This may, for example, be on roads that are very narrow, through engineering or on-road car parking. If the mean speed is already at or below 24 mph on a road, introducing a 20 mph speed limit through signing alone is likely to lead to general compliance with the new speed limit.

3.2 In urban areas Circular 01/13 advises that;

Traffic authorities can, over time, introduce 20mph speed limits or zones on:

- *Major streets where there are – or could be - significant numbers of journeys on foot, and/or where pedal cycle movements are an important consideration, and this outweighs the disadvantage of longer journey times for motorised traffic.*

This is in addition to

- *Residential streets in cities, towns and villages, particularly where the streets are being used by people on foot and on bicycles, there is community support and the characteristics of the street are suitable.*

Where they do so, general compliance needs to be achievable without an excessive reliance on enforcement.

3.3 In villages Circular 01/13 advises that;

Para 131. Fear of traffic can affect people's quality of life in villages and it is self-evident that villages should have comparable speed limits to similar roads in urban areas. It is therefore government policy that a 30 mph speed limit should be the norm through villages.

Para 132. It may also be appropriate to consider 20 mph limits or zones in built-up village streets which are primarily residential in nature, or where pedestrian and cyclist movements are high. Such limits should not, however, be considered on roads with a strategic function or where the movement of motor vehicles is the primary function.

4.0 Existing commitments

4.1 The safety of Wiltshire residents continues to be the overriding concern of the Council. Improving safety is carried out by Education, Enforcement and Engineering activities and the use of 20mph limits and zones will be included in this, where the circumstances suggest that this is considered appropriate. This will be where it can, in the light of past experience, be realistically anticipated to bring about a demonstrable change in driver behaviour, resulting in a consequent improvement in the environment for pedestrians and other vulnerable users.

4.2 Wiltshire Council has in the past stated the following commitments.

- Continue to invest in the proven Education, Enforcement and Engineering techniques.
- Continue to invest in 20mph Zones in Town centres and residential areas where there is a high volume of vulnerable users in conflict with vehicles.
- On new estate design ensure that access and internal roads are effectively self enforcing 20 mph Zones.
- Introduce 20 mph limits where there is clear indication they will prove effective in reducing both traffic speeds and collisions.

- Fully involve the Area Boards in local decisions relating to highway improvements.
- Give due consideration of any change in the position of the Association of Chief Police Officers in enforcing 20mph limits.

5.0 **Criteria to be used**

5.1 The guidance set out in DfT Circular 01/13 further reinforces the knowledge and experience gained in Wiltshire through the use of 20mph speed limits and 20mph zones in both urban and rural environments. As such it is considered that a Wiltshire Policy should not substantially deviate from that contained in Circular 01/13. Taking into consideration the guidance and Wiltshire's own experience the following criteria are to be used.

5.2 <u>20mph limits can be considered:</u>

- Where mean 'before' speeds are at or below 24.0mph and in those locations where the mean speeds are just above 24mph and the use of lighter touch engineering measures are likely to result in 'after' mean speeds below 24mph.
- On roads that do not have a strategic function or where the movement of motor vehicles is not the primary function and in those areas where significant pedestrian and cycle movements are demonstrated to take place.
- In those areas set out in paragraph 84 and 97 of Circular 01/13
- In rural areas where the location, in additional to the above conditions, also meet the definition of a village as set out in Traffic Advisory Leaflet '01/04 - Village Speed Limits'

Roads which have a strategic function or where the movement of motor vehicles is not the primary function are defined as those to 'Category 4B' of the adopted Wiltshire Council Road Hierarchy as set out in **Appendix C.** Roads to Category 4B Local Access, would typically be considered suitable for 20mph limits.

5.3 <u>20mph zones can be considered::</u>

- On roads subject to an existing 30mph speed restriction.
- Where there is a proven history of road user conflict with vulnerable road users i.e. child pedestrians.
- In new residential housing developments.
- Where a suitable alternative route exists to enable drivers to avoid the zone.
- In those areas set out in paragraph 84 of Circular 01/13
- Where the use of traffic calming features is supported by the emergency services.

6.0 **Mechanism to enable the introduction of 20mph speed limits and zones**

6.1 It is expected there will be an initial demand from the public for 20mph restrictions, in particular for 20mph limits. Over time it is anticipated this demand will plateau until such time where their long term effect on driver behaviour and potentially limited outcomes becomes better understood within the communities. Until then clear prioritisation of the requests will be required. With the established role of the Area Boards / Community Area Transport Groups in determining local priorities for many highways improvements it

is considered that they should be directly involved in any prioritisation mechanism and the decision on whether to install the limit or zone.

6.2 The mechanism would allow the Area Boards / Community Area Transport Groups to determine locations for assessment and potential delivery.

6.2 A flow chart setting out the mechanism is included at **Appendix A.**

7.0 Funding

7.1 20mph restrictions are seen as one solution within the options available to deal with improving road safety in Wiltshire. As such they would need to be considered for funding alongside other requests received by the Area Board / Community Area Transport Groups from the local community.

7.2 All assessment, design, and Traffic Regulation Order (TRO) costs would be borne by the Area Board / CATG. As implementation of any approved scheme would be at the discretion of the Area Board / CATG all implementation costs would need to be funded from the Area Board Discretionary Highways budget or the substantive CATG fund.

8.0 Summary

8.1 The use of 20mph speed limits and zones is accepted as being an additional measure by which road safety concerns can be addressed. However in order to ensure they remain both credible and effective it is essential they are only be used in areas that are suitable and which meet the criteria set out above. If this is not achieved their effectiveness and public acceptance will quickly be eroded. In particular 20mph limits should not be seen as the panacea to all road safety issues in built up urban areas and villages, but considered as one of the many available solutions to address the concerns raised.

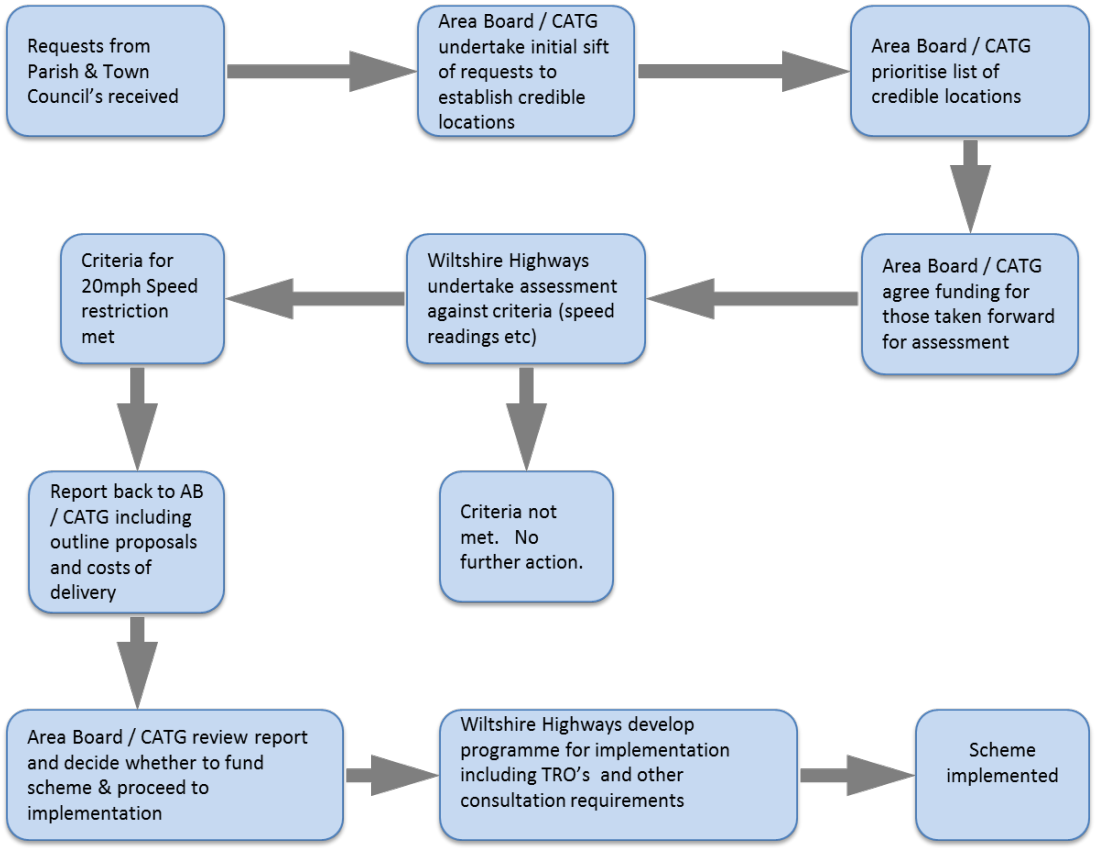
8.2 It is intended that ongoing monitoring of installed 20mph restrictions will inform how this policy develops in the future and it is fully anticipated that the criteria will be refined in light of the results recorded.

8.3 A frequently asked questions section is included at **Appendix B**

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APPENDIX A

Wiltshire 20mph speed restriction Process



Appendix B

20mph speed restrictions - Frequently Asked Questions

Q1. **How effective are 20mph speed limits in reducing actual vehicle speeds?**

A1. *Results from area wide 20mph speed limits introduced in Portsmouth and other areas have shown an average reduction in speed of 1 to 2mph where 'before' speeds where already low. Where before speeds where higher (greater than 25mph) speed reduction is greater but the resultant reduced speeds remain above 24mph and overall compliance remains low. The Wiltshire village trials resulted in an overall reduction in mean speed of 1.6mph which supports the advice given by the DfT. (para 95 and 96 of Circular 01/13)*

Q2. **Why is a mean speed of 24mph used as the threshold level?**

A2. *All speed limits are set where it can be expected that overall compliance with the limit can be expected. As demonstrated above where mean speeds are greater than 24mph the overall compliance is low and it can be considered that the limit is then ineffective. A mean speed of 24mph is considered to be the statistical level where the limit remains effective.*

Q3. **What are the benefits of 20mph limits?**

A3. *There is some early evidence from the sign only 20mph pilot schemes that whilst speed reduction is small there are quality of life and community benefits that can be accrued. (para 83 Circular 01/13).*

Q4. **Will 20mph limits reduce the numbers of road casualties?**

A4. *Whilst it is accepted and there is substantial evidence to show that reduced traffic speeds result in reductions in collisions and casualty severity (para 82 Circular 01/13) there is no clear long term evidence that 20mph limits on their own result in a reduction in road casualties. The results from pilot area wide urban 20mph in other parts of the country have proved inconclusive with reductions on some roads and increases on others. Longer term monitoring is required before definitive conclusions can be made.*

Q5. **Will 20mph limits mean the introduction of road humps or other forms of traffic calming?**

A5. *No. The basis of 20mph limits is that they should be self enforcing negating the need for traditional traffic calming features such as horizontal and vertical deflections. However lighter touch measures, such as carriageway roundels, are permitted at locations where speeds remain of concern.*

Q6. **Will 20mph limits result in an increase in the number of signs?**

A6. *Yes. There is a requirement that repeaters signs are provided at regular intervals throughout the length of road subject to a 20mph limit.*

Q7. **Why won't you be implementing 20mph limits on rural main roads? - this is where the problem is**.

A7. *The DfT guidance is clear in that 20mph limits in rural villages should not be provided where the primary function of the road is that of through vehicle movement. (para 132 Circular 01/13). It is highly likely that in rural areas where roads are subject to significant through vehicle movements that 'mean' speeds would not be of a level that a 20mph limit can be considered.*

Q8. **Is Wiltshire Council implementing blanket 20mph limits in large residential areas like some other local authorities?**

A8. *Area wide limits will be considered as part of the adopted process.*

Q9. **Will a 20mph limit / zone be enforced by the Police?**

A9. *Up until recently ACPO have said that all 20mph restrictions should be self enforcing and as such they will not receive routine enforcement. However this position is being reconsidered and targeted enforcement by Neighbourhood Policing Teams is likely to be undertaken in the future based on local intelligence.*

Q10. **Can Community Speed Watch (CSW) operate in areas covered by 20mph limits?**

A10. *Revisions to the way in which CSW operates in Wiltshire are due to be announced in the near future and this is likely to allow CSW in both 20mph limits and zones.*

Q11. **Can the temporary Speed Indication Device (SID) be deployed in a 20mph limit / zone?**

A11. *Yes. As an addition to support CSW activities*.

Q12. **Will existing 20mph limit / zones be reviewed to find out if they meet the criteria? Will action be taken to make changes to those that do not?**

A12. *No, however if concerns are raised locally through the Area Board issues system and supported by the Community Area Transport group a reassessment could be considered.*

Q13. **How much do 20mph speed limits and zones cost?**

A13. *20mph zones and limits vary considerably in size and nature. As such it is difficult to provide definitive costs at this stage. Typically the on ground delivery cost of a 20mph limit covering a village is in the order of £8,000 to £10,000. A typical area wide 20mph zone with physical calming features would cost in the region of £80,000 to £250,000. These estimates exclude the upfront assessment and design costs.*

Q14. **How can you tell if a newly implemented 20mph limit has been successful?**

A14. *We will undertake ongoing monitoring.*

Q15. **Will 20mph simply lead to increased delays to traffic and driver frustration?**

A15. *By carefully choosing the areas for 20mph restrictions additional delays to motorists are not anticipated.*

Q16. **You are only allowing 20mph limits in streets where average speeds are already below 24mph – what's the point?**

A16. *Whilst further speed reduction is likely to be small, the presence of the limit is likely to bring about an overall change in driver attitude and introduce positive community benefits.*

Q17. **I do not want a 20mph limit / zone to be implemented where I live – how do I object?**

A17. *Any change in the speed limit will be subject to a formal traffic order advertisement at which time objection can be made.*

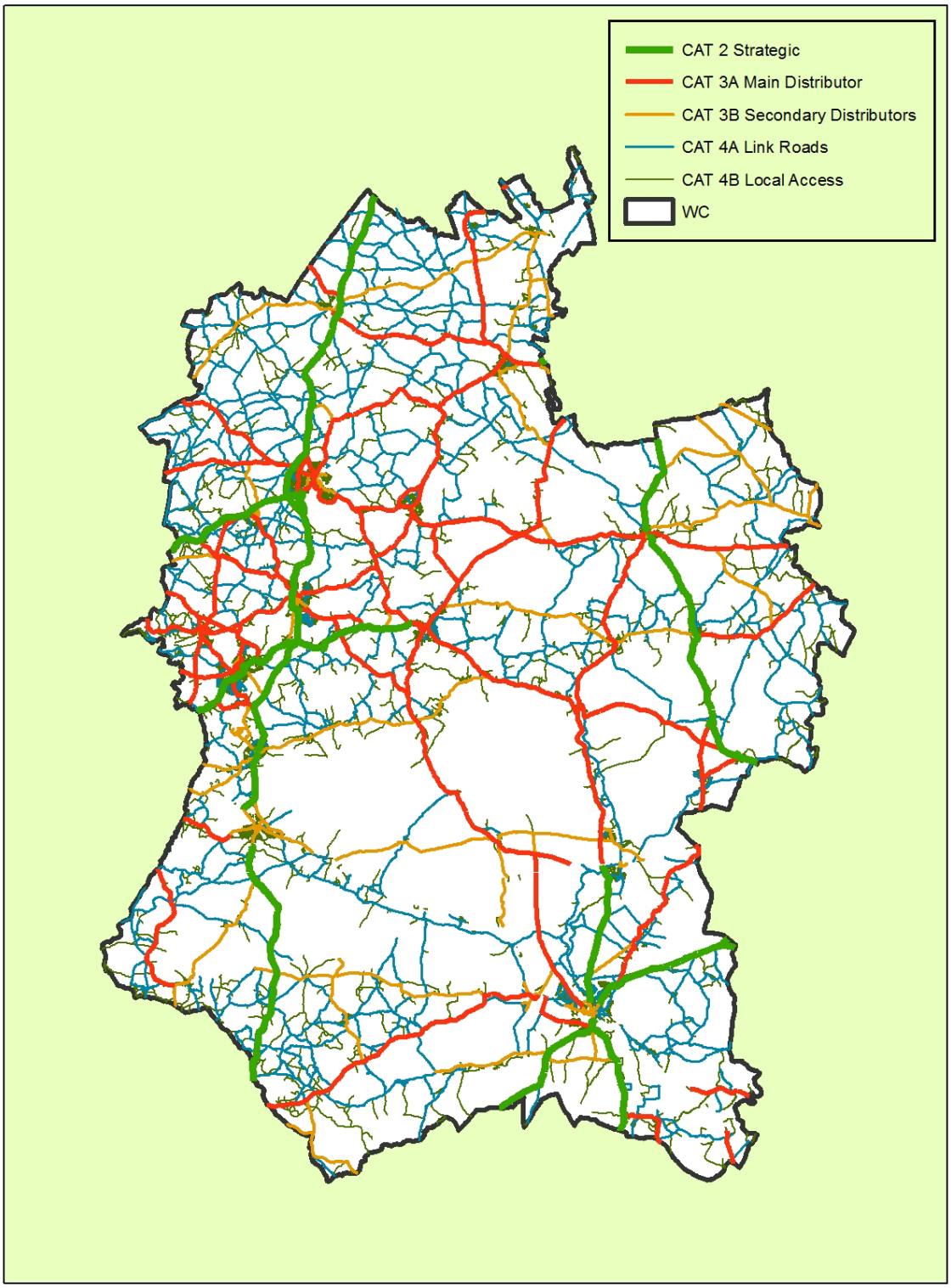
Appendix C

Wiltshire Council Road Hierarchy

Table taken from the *'Code of practice for Maintenance Management'* DETR 2001.

Hierarchy Description	Type of Road / General description	Detailed Description
Motorway	Limited access motorway regulations apply.	Routes for fast moving long distance traffic. Fully grade separated and restrictions on use.
Strategic Route Category 2	Trunk and some Principal "A" roads between Primary Destinations.	Routes for fast moving long distance traffic with little frontage access or pedestrian traffic. Speed limits are usually in excess of 40 mph and there are few junctions. Pedestrian crossings are either segregated or controlled and parked vehicles are generally prohibited.
Main Distributor Category 3A	Major Urban Network and Inter–Primary Links. Short – medium distance traffic.	Routes between Strategic Routes and linking urban centres to the strategic network with limited frontage access. In urban areas speed limits are usually 40 mph or less, parking is restricted at peak times and there are positive measures for pedestrian safety.
Secondary Distributor Category 3B	Classified Road(B and C class) and unclassified urban bus routes carrying local traffic with frontage access and frequent junctions	In rural areas these roads link the larger villages and HGV generators to the Strategic and Main Distributor Network. In built up areas these roads have 30 mph speed limits and very high levels of pedestrian activity with some crossing facilities including zebra

Hierarchy Description	Type of Road / General description	Detailed Description
		crossings. On street parking is generally unrestricted except for safety reasons
Link Road Category 4A	Roads linking between the Main and Secondary Distributor Network with frontage access and frequent junctions.	In rural areas these roads link the smaller villages to the distributor roads. They are of varying width and not always capable of carrying two way traffic. In urban areas they are residential or industrial inter– connecting roads with 30 mph speed limits random pedestrian movements and uncontrolled parking.
Local Access Road Category 4B	Roads serving limited numbers of properties carrying only access traffic	In rural areas these roads serve small settlements and provide access to individual properties and land. They are often only single lane width and unsuitable for HGV. In urban areas they are often residential loop roads or *cul de sac.*



Maintenance Road Class

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Miles