

Speed Management Strategy

Consultation Draft - July 2020



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Section 1: Introduction

1.1 What is the speed management strategy?

1.1.1 The Speed Management Strategy is a supporting document to the fourth Local Transport Plan.

1.1.2 The overall purpose of the Speed Management Strategy is to set out a consistent approach to the setting of speed limits based on the function and nature of the route as set out in the Department for Transport Guidance Document Circular 01/2013 – Setting Local Speed limits.

1.1.3 The county council and police receive many requests in relation to speed management and speed limit compliance. These can be addressed through a number of 'tools':

- Speed enforcement.
- Engineering and design measures.
- Camera based technology.
- Education, training and publicity.
- Behaviour change initiatives such as fixed or mobile Community Drivesafe schemes.
- Speed Indicator Devices (SIDs).

1.1.4 The strategy considers these tools and provides the following:

- A consistent approach to setting speed limits based on the function and nature of the route.
- A consistent approach to the implementation of speed management traffic calming measures.
- Consistent criteria for the selection of safety camera sites.
- Clarification of the role of the police and county council as Highways Authority in relation to setting speed limits and undertaking enforcement.
- Information on how the Police and Crime Commissioner (OPCC) Road Safety Fund can be used to address community concerns relating to traffic speeds.
- Information on education and publicity programmes.

1.2 Who is the strategy for?

1.2.1 It is intended that the strategy will be read and used by:

- Hertfordshire County Council officers.
- Officers with a professional interest in speed management.
- Local Members.
- Hertfordshire Constabulary.
- Members of the public.
- Other stakeholders such as developers of new roads.

1.2.2. The strategy is intended to help both members and officers follow a consistent approach to setting speed limits and guide them to the most appropriate tools for doing this in line with Local Transport Plan 4

1.3 Who is responsible for the strategy?

1.3.1 Hertfordshire County Council (HCC) is the highway authority and the traffic authority for the county of Hertfordshire pursuant to the Highways Act 1980 and the Traffic Management Act 2004 respectively and is responsible for the management of speed on all public roads in Hertfordshire except the motorway and trunk roads which are operated by Highways England.

1.3.2 The Chief Constable of Hertfordshire is responsible for the direction and control of police officers and staff who are members of the Constabulary. The Constabulary are responsible for speed enforcement, referred to as the police in this document.

1.3.3 The Strategy supports the work of the multi-agency Hertfordshire Road Safety Partnership and contributes to delivering a coordinated 'Safe Systems' approach to road safety as detailed in Hertfordshire's Road Safety Strategy and the Government's Road Safety Statement 2019 – 'A Lifetime of Road safety – Moving Britain ahead.

1.4 What has changed in this version of the strategy?

1.4.1 The previous Speed Management Strategy was adopted in 2014. Since then there have been a number of changes both locally and nationally that have been taken into account in the development of this draft strategy, including:

- The adoption of Local Transport Plan 4 (LTP4) in May 2018. The strategy has been amended to be in line with LTP4 objectives and policies.

- The introduction of the OPCC Road Safety Fund, which is an additional source of potential funding available to any organisation that can contribute to improving road safety across the county.
- The county council have adopted the principles of Place and Movement to describe the function of each road in the county and these categories will be used alongside the speed limit framework for determining the appropriate speed limit. Further information on this approach is provided in Sections 2.4, 4.3 and 5.2.
- Revised Traffic Signs Regulations and General Directions in 2016 which allowed Highway Authorities further discretion relating to certain traffic signage placement.

1.4.2 As a result of this the key changes between the new version of the strategy and the 2014 version are as follows:

- The setting out of 5 core principles including the potential to raise limits as well as lowering them.
- The clarification of the relationship between mean speed and 85th percentile speed.
- A new section on design and potential measures required to change driver behaviour.
- 20mph limits discussed in the context of 20mph areas with further guidance on the criteria for introducing 20mph limits.
- The use of the Place and Movement approach to help guide which areas may be suitable for 20mph limits.
- Clarification of the role of the Speed Management Group.
- Incorporation of a section on Speed Indicator Devices (SIDs)

1.4.3 Further detail on the changes is given in Appendix B.

1.5 Format of the strategy

1.5.1 The remainder of the strategy sets out the following:

- The policy context – how it links to national and local HCC policy including LTP4 and its supporting documents.
- The principles for setting speed limits.
- Criteria for setting 20mph limits.
- Tools to help manage speed including engineering measures, SIDs and camera-based technology.

- Potential funding required to implement revisions to speed limits.
- The process for changing speed limits, including the role of the Speed Management Group.

Section 2: Policy context

2.1 National guidance

- 2.1.1 The Speed Management Strategy is underpinned by national guidance and regulations on speed limits as well as the required speed limit review procedures.
- 2.1.2 The responsibility for setting speed limits on roads lies jointly between the Highway Authority (the county council), Highways England (for Motorways and Trunk Roads) and the police. The role of enforcement falls to the police, and this is supported by the Hertfordshire Safety Camera Partnership which seeks to reduce casualties at sites where there is an identified speed related personal injury collision history.
- 2.1.3 Further information on the required procedures and enforcement arrangements is given in Section 13.

2.2 Hertfordshire corporate plan

- 2.2.1 HCC has developed a Corporate Vision which is used to guide the long term objectives of the council. This short, high level statement outlines in simple terms how HCC would like to see the County and its people develop and the type of organisation it wishes to be.
- 2.2.2 It is used to develop corporate policies and objectives, some of which are directly or indirectly relevant to speed management.
- 2.2.3 The HCC Corporate Plan sets out the key priorities for the County and how HCC intend to deliver the vision for Hertfordshire – County of Opportunity
This is underpinned by the following four ambitions, the opportunity to:

- Thrive
- Prosper
- Be Healthy and Safe
- Take Part

The vision

We want Hertfordshire to continue to be a county where people have the opportunity to live healthy, fulfilling lives in thriving, prosperous communities.

- 2.2.4 The Speed Management Strategy directly feeds into the ambition to be Healthy and Safe

2.3 Hertfordshire local transport plan

- 2.3.1 By 2031 there will be 175,000 more people living in Hertfordshire using the transport system. With more people also travelling to and through the county, there will be a significant impact on congestion and journey times, particularly during peak travel periods.
- 2.3.2 In May 2018 the new Local Transport Plan (LTP4) was adopted, setting out the new Transport Vision for Hertfordshire. It provides a framework to guide all future transport planning and investment and highlights transport problems and issues and identifies ways to deal with them.
- 2.3.3 LTP4 sets out the objectives, policies, and key schemes that will help to achieve a switch from the previous, largely car-based strategy, to a more sustainable strategy to deliver a positive future vision of Hertfordshire, focussed around the themes of people, place and prosperity as shown in the figure below.



- 2.3.4 It is recognised that an effective Speed Management strategy can help in delivering the following LTP4 objectives:
- Enhance the quality and vitality of town centres
 - Preserve the character and quality of the Hertfordshire environment
 - Reduce carbon emissions
 - Make journeys and their impact safer and healthier
- 2.3.5 LTP4 includes a number of policies to meet these objectives. By providing a means to apply appropriate speed limits (including those to encourage walking and cycling), the Speed Management Strategy directly supports LTP4 Policy 1, the Transport User Hierarchy as shown below:

Policy 1: Transport User Hierarchy

To support the creation of built environments that encourage greater and safer use of sustainable transport modes, the county council will in the design of any scheme and development of any transport strategy consider in the following order:

- Opportunities to reduce travel demand and the need to travel
- Vulnerable road user needs (such as pedestrians and cyclists)
- Passenger transport user needs
- Powered two wheeler (mopeds and motorbikes) user needs
- Other motor vehicle user needs

2.3.6 Within LTP4 there is also a specific Speed Management Policy (Policy 15) which states: 'The county council through its Speed Management Strategy, a joint working strategy with the police, will seek to manage the network to achieve appropriate speeds in the interests of safety, other road users, and the environment'. LTP4 also states the county council will adopt and maintain a Speed Management Strategy to help set speed limits on the County's Roads.

2.3.7 The Speed Management Strategy also contributes to or influences a number of other LTP4 policy areas, including;

Policy 1 – Transport User Hierarchy

Policy 5 – Development Management

Policy 7 – Active Travel – Walking

Policy 8 – Active Travel – Cycling

Policy 12 – Network Management

Policy 13 – New Roads and Junctions

Policy 17 – Road Safety – in relation to this The Speed Management strategy is part of the 'Safe Systems' approach that seeks to co-ordinate a mix of safer roads, safer speeds, safer vehicles, safer road users and post-collision response with a focus on casualty reduction.

2.3.8 These policies have strategies associated with them. The Speed Management Strategy therefore links directly with a number of the other LTP4 supporting strategies including:

- Active Travel Strategy
- Roads in Hertfordshire – A Design Guide
- Road Safety Strategy
- Network Management Strategy

2.4 Place and movement approach

- 2.4.1 The function of each road varies, some are about the movement of vehicles and there is very little interaction with people either as walkers or cyclists. In other locations there is more people activity (place function) with people needing to access facilities. The speed limit on a road can encourage or discourage this activity and it is important that the right environment is provided to support the correct speed of traffic so that does not prevent or deter people from using the road space in an appropriate manner.
- 2.4.2 HCC has adopted a Place and Movement Approach which takes into account the varying functions and uses of its roads, recognises the needs of different road users and manages the interfaces between them.
- 2.4.3 Place and Movement provides a way of looking at the appropriate function of any section of highway and a basis for deciding which activities should be prioritised and in doing so provides a means to translate LTP4 policies into practice.
- 2.4.4 Building on the Healthy StreetsTM approach developed by Transport for London (TfL), a matrix has been developed which classifies the highway network into 9 categories based on its relative place and vehicle movement function.
- 2.4.5 This categorisation provides a means of identifying the locations which are suitable for the application of different speed limits and an evidence led approach for determining the appropriateness of speed limit change requests. Further detail on this is included in Sections 4.3 and 5.2.

Section 3: Core principles

3.1 The core principles of speed management

- 3.1.1 The purpose of the Speed Management Strategy is to set out a consistent approach to the setting speed limits based on the function and nature of the route. In doing so the key principle of the strategy is as follows:

To ensure the speed limit for any road is in keeping with its environment

This will mean:

1. In some cases (where appropriate) we will lower speed limits.
2. In some cases (where appropriate) we will raise speed limits.
3. In some cases (where appropriate) we will need to change the design of a road to change behaviour.
4. We won't put up speed limit signs and expect a significant behaviour change
5. We will consider speed limit changes that support active travel (walking and cycling).

- 3.1.2 These principles will be applied to all roads in Hertfordshire that are the responsibility of the county council as Highways Authority and will ensure consistency in the implementation of speed limits across the county.

- 3.1.3 The following section sets out the principles of setting different speed limits.

Section 4: Principles of setting speed limits

4.1 Introduction

- 4.1.1 Hertfordshire's approach to the application of speed limits should be consistent across the county if it is to be understood and complied with by the majority of drivers. This should also be the case across the country. Badly set or inappropriate limits are often ignored and make drivers less willing to comply with the system generally.
- 4.1.2 Speed enforcement is the responsibility of Hertfordshire Constabulary. The police have competing demands for officer's time and in recent times the presence of roads policing has diminished and as a result their enforcement activity tends to be focussed on sites with a history of speed related collisions and a need for casualty reduction along with the use of both fixed and mobile speed camera detection provided by the Safety Camera Partnership.
- 4.1.3 Whilst there is the potential to request enforcement activity at other locations this needs to be approved by the Priority Setting Forums. These are made up of the police Safer Neighbourhood Team. Any requests also need to be authorised by the police inspector for that area. Enforcement activity however tends to be focused on the Strategic Road Network (SRN). There is both limited time and capability for local police to perform speed enforcement when set against their other competing demands.
- 4.1.4 The overriding principle for applying speed limits is therefore that they should encourage self-compliance by motorists where possible as set out in **Circular 01/2013 – Setting Local Speed Limits**. To achieve this speed limits need to be appropriate and reflect the physical environment of that highway section, the speed motorists are currently travelling at, the level of use by both motor vehicles and vulnerable users and whether there is a speed related collision history. By following this principle, HCC can use its powers as Highways Authority to help enforce speed limits by design and the application of appropriate technology as it emerges.
- 4.1.5 Important considerations when setting speed limits will be:
- What speed are drivers currently driving at?
 - Is the environment suitable for the speed limit being considered?
 - The level of use by both motor vehicles and vulnerable users
 - The personal injury collision history
- 4.1.6 Speed limits should be evidence-led, self-explanatory and appropriate, seeking to reinforce driver's assessment of what is a safe speed to travel. They should

encourage self-compliance and not be seen by drivers as being a target speed at which to drive in all circumstances.

4.1.7 A framework has been developed which provides a guide to assist speed limit selection. The first stage is to assess the environment to confirm that a speed limit is appropriate for the road. This includes the following checks:

- Measurements of the existing speed motorists are travelling at – for 30mph to 70mph limits the mean speed should not exceed the proposed limit (20mph areas are discussed separately in Section 6 below).
- The Place and Movement category of the road – i.e. is it primarily focused on vehicle movement or does it have more of a place function (i.e. somewhere where people want to visit).
- The environment; e.g. whether there is an active frontage, the width and curvature of the road and the presence of junctions which encourage drivers to travel at lower speeds.
- The presence of vulnerable users such as pedestrians and cyclists (either currently or in the future) and whether there is a need to increase the attractiveness of the route for active modes of travel).

4.1.8 Further detail on these checks are given below.

4.2 Existing speeds

4.2.1 The current guidance **DfT Circular 01/13 for setting local speed limits** states that traffic authorities should continue to routinely collect and assess both mean and 85th percentile speeds, but that mean speeds should be used as the basis for determining local speed limits.

Mean speeds are the average speeds that all vehicles travel at

85th percentile speeds are the speeds at or below which 85% of all vehicles are observed to travel under free-flowing conditions. This is a nationally recognised method of assessing traffic speeds.

4.2.2 Where there is not a consistent relationship between the 85th percentile and the mean speed, it will usually indicate that motorists have difficulty in deciding the appropriate speed for the road. This suggests that a better match between the road

design and the speed limit is required. In such situations it may be necessary to consider the appropriateness of the limit or consider the need for additional design or enforcement measures.

4.2.3 Table 4.1 below shows the range of speeds that are appropriate for different levels of speed limit. Apart from 20mph limits, the mean speed should match the desired speed limit. The 85th percentile gives the upper end of the appropriate range and is based on previous ACPO guidelines (based on 10% over the speed limit plus 2mph for a margin of error). The standard deviation is then based on the difference between the mean and 85th percentile speed.

4.2.4 On roads where surveys indicate that the measured mean speed and/or 85th percentile speed are beyond these thresholds, the appropriateness of the speed limit without accompanying measures (either existing or proposed) should be reviewed.

Table 4.1 Speed Limit ranges

Speed Limit	Mean speeds	85th percentile speeds	Standard Deviation
20 mph	24 mph	28 mph	4 mph
30 mph	30 mph	35 mph	5 mph
40 mph	40 mph	46 mph	6 mph
50mph	50 mph	57mph	7 mph
60 mph	60 mph	68mph	8 mph

4.2.5 If the current measured speed is higher than the proposed limit then there are three potential outcomes based on the core principles of the strategy:

- Keep the speed limit as it is.
- Lower the speed limit as proposed (in conjunction with supporting measures).
- Review the rationale for the existing limit – in a small number of cases the environment may mean that a higher speed limit may be more appropriate for the section or part of to help encourage the correct behaviour in the relevant environment.

4.2.6 Further technical detail on the collection and application of speed data is included in Appendix C.

4.3 Place and movement category

- 4.3.1 The Place and Movement function of a road can have an impact on what the appropriate speed limit should be to enable the road to function in the correct way. In roads or streets where the sense of Place is higher and pedestrian movements are high then it will be appropriate to have lower limits. The Place and Movement designation will not set the appropriate limit but will enable the Speed Limit Framework to be used to see if changes are required to the environment to allow the appropriate speed limit to be applied. Section 5.2 sets out the Place and Movement categories. In residential streets, high streets, town centres and transport interchanges speed limits should be lower to enable people to walk and cycle with confidence.

4.4 Hertfordshire speed limit framework

- 4.4.1 The Hertfordshire Speed Limit Framework provides a guide to assist in speed limit selection and gives examples of appropriate environments for the application of different speed limits in both urban and rural areas. The Speed Limit Framework can be found in the next Section.
- 4.4.2 The Key criteria which are applied to the setting of speed limits in Hertfordshire are as follows.

KEY CRITERIA - SETTING SPEED
Limits General Setting Speed Limit Criteria:

- | | |
|------------|--|
| KC1 | An assessment of the environment must be made to confirm that a speed limit is appropriate for the road. The Hertfordshire Speed Limit Framework will be used to meet this criterion. |
| KC2 | An assessment of the Place and Movement Function of the road will be made to determine whether the appropriate speed limit will enable the correct Place and Movement activity to be undertaken. The HCC webmap layer will be used for this assessment |
| KC3 | For 30mph to 70mph limits, the mean speed should not exceed the proposed limit once implemented. (See Section 5 for criteria for 20mph limits and zones). |
| KC4 | Mean and 85th percentile speeds will be collected before a limit is implemented or changed. Although mean speeds will be used as the basis for setting speed limits, if there is not a consistent relationship between the 85th percentile and mean speeds (see Appendix C), the appropriateness of the existing limit will be reconsidered. |
| KC5 | When collecting existing speed data this should be recorded on the fastest section of road in free-flowing conditions. Refer to Appendix C for definition of free flow |
| KC6 | When considering a revised speed limit the promoting officer must follow the Speed limits and zones implementation process and complete a Speed Limit Change Form to ensure that all the relevant Speed Management Strategy criteria have been met. |
| KC7 | The form is to be submitted to the Speed Management Group for approval prior to consultation and again following legal advertisement |

Section 5: 20mph areas

5.1 Introduction

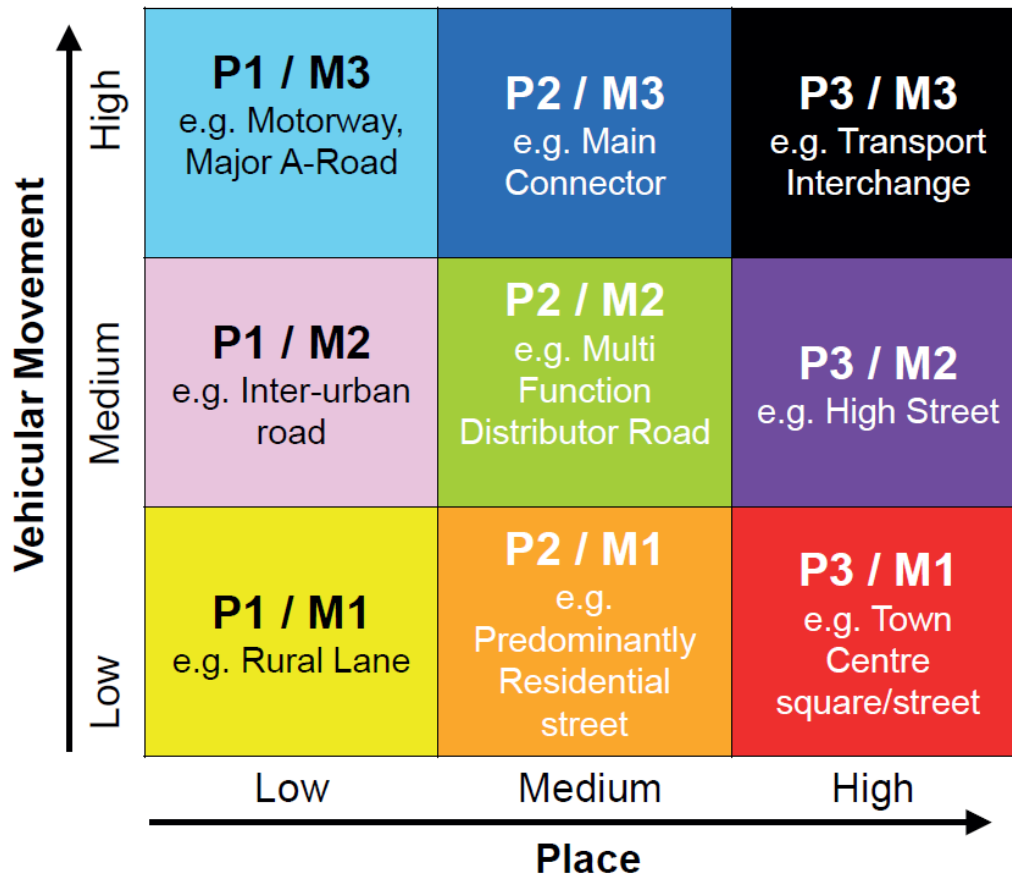
- 5.1.1 The introduction of 20mph speed areas provides a mechanism for encouraging the greater uptake of active travel within areas in line with LTP4 Policy 1 (the transport user hierarchy). This is backed up by research¹ (Atkins et al, 2018) which has found that people are more likely to consider active travel modes in areas with 20mph limits
- 5.1.2 Nationally there are two definitions for roads with 20 mph speeds, these are:
- 20mph limits (indicated by road signing only)
 - 20mph zones (self-enforcing areas with engineering measures and some road signage).
- 5.1.3 It is accepted that this can be confusing and that a consistent approach to road signage is needed so that the public understand what the speed limit is. To avoid confusion between the two national definitions (zones and limits) we are proposing to use the collective term 20mph areas. Within these there would be a minimum signing requirement (see Section 5.4 for further detail).
- 5.1.4 Engineers would still follow national legislation in terms of zones and limits when designing a scheme. The difference in Hertfordshire would be that if an engineer is progressing a zone with predominantly traffic calming measures, they would be required to add additional signs to reinforce the limits. Further guidance on this is given in Appendix E.

5.2 Application of place and movement approach

- 5.2.1 The recently adopted Place and Movement approach provides a means of determining the function of a street, the level of activity upon it and whether it is likely to have a predominant place function (with higher movements of pedestrians and cyclists) or movement function (with higher numbers of vehicles).
- 5.2.2 A three by three matrix has been developed as shown in Figure 5.1 below. All roads in Hertfordshire have been classified with a Place and Movement category.

¹ Atkins, AECOM and Maher M (2018) 20mph Research Study
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757302/20mph-technical-report.pdf

Figure 5.1 Place and Movement Categories



- 5.2.3 As a starting point, 20mph limits can be considered as potentially being appropriate on roads in the P2/M1 category (which typically represent residential streets) These are generally streets where vehicle movements are low (or should be low) but where pedestrian/cycle movements are likely to be more important given the local land uses (i.e. homes and associated facilities). 20mph limits are also likely to be appropriate in areas with a high place (P3 category e.g. Town Centres).
- 5.2.4 Roads with higher movement functions frequently run between more residential areas with a higher place function. In some instances it may be appropriate to consider 20mph limits on roads in the P2/ M2 category which represent multi-functional roads (for example distributor roads within housing estates) but it is likely that these will require additional supporting engineering/design or technological measures to aid enforcement as the limits will need to be self-enforcing and not reliant on the police for enforcement.

- 5.2.5 The Place and Movement categories also have the potential to form the basis for identifying other speed limit groups.

5.3 Requests for 20mph areas

- 5.3.1 Where there is a request for a 20mph area, speed limit measurements must be undertaken. A 20mph area would only be considered self-enforcing with signs where maximum mean speeds are 25mph or less prior to implementation.
- 5.3.2 Where existing speeds are over 25mph the implementation of a 20mph area will require the introduction of supporting physical and/or technological measures, appropriate to the speed reduction required.
- 5.3.3 As well as the Place and Movement category, consideration should also be given to whether the environment is suitable for a lower speed limit. Converting wide unobstructed roads, in particular, is likely to require speed humps or other significant physical alterations (refer to Key Criteria in 5.3.7).

Schools

- 5.3.4 Advisory 20mph speed limits can be introduced outside schools where the environment is appropriate and where maximum mean speeds are measured as 30mph or less prior to implementation. Although being advisory these are not legally enforceable, they are potentially an additional tool to encourage behaviour change in these areas and should ultimately be self-enforcing without accompanying physical traffic calming measures.
- 5.3.5 The default position in Hertfordshire is that 20mph will be a first consideration (where the environment is suitable) when new schools are proposed, or significant changes are made to existing school facilities. These would be mandatory limits where appropriate.

New developments

- 5.3.6 The physical design of new residential developments should naturally encourage motorists to drive at 20mph or less with reinforcement by signage in predominantly residential areas and outside schools and other community facilities. The revised LTP4 supporting strategy 'Roads in Hertfordshire' will provide appropriate guidance on the layouts of roads and road widths to help achieve this. This will follow accepted best practice principals from design guidance documents such as Manual for Streets.
- 5.3.7 The Key criteria which have been developed to guide the setting of 20mph areas in Hertfordshire are shown below:

20mph Areas Key Criteria:

- KC8** HCC use a collective term of 20mph Areas to describe either a 20mph zone or a 20mph limit. 20mph Areas have different requirements to that found in national guidance and will always confirm to legislation. (A comparison table is contained within Appendix E)
- KC9** Data Collection: When collecting speed data for 20mph areas, the following will apply:
- The lead engineer will visit all roads in a proposed area
 - Mean speeds will be collected in all roads where there is a concern that vehicle speeds are high
 - Mean speeds will be collected in a random sample of other roads within the proposed zone
 - The locations of the above will be agreed with the relevant Traffic Management officer from the Police
- With the correct judgement and experience this should avoid the need to count every road with a proposed 20mph Area.
- KC10** Environment: An assessment of the environment must be made to confirm that a 20mph speed limit is appropriate for the road(s). The *Hertfordshire Speed Limit Framework* will be used to meet this criterion.
- KC11** Existing speeds for proposed limits: 20mph areas without traffic calming measures will only be considered where the existing mean speeds are 25mph or below.
- KC12** Speeds after implementation: Speeds will be re-measured within one year on the roads that were surveyed before implementation:
- 20mph areas will have a maximum mean speed of 24mph once implemented
 - 20mph areas must be generally self-enforcing.
- KC13** Where post schemes have a mean higher than 24mph then there are two options:
- Re-introduce the 30mph limit by reviewing the extent of the 20mph area
 - Introduce traffic calming measures
- KC14** Consideration of Bus Routes: The 'Bus Infrastructure in Hertfordshire - Design Guide' says that if physical measures in a 20mph area are considered necessary on a bus route then the extent of these features (or length of zone) should be kept to a minimum so as not to adversely affect the quality of the ride.
- KC15** Advisory 20mph limits will only be considered outside schools where existing mean speeds are 30mph or less.
- KC16** Variable 20mph limits need to be self-enforcing and have a maximum mean speed of 24mph during their times of operation. As with a permanent limit a Speed Limit Change Form must be completed.
- KC17** The default position in Hertfordshire is that 20mph will be a first consideration (where the environment is suitable) when new schools are proposed or significant changes are made to existing schools.
- KC18** Where new roads are designed for 20mph then a traffic regulations order is required to be progressed and funded by the promoter. Even if the road has been laid out to meet Manual for Streets principles a traffic regulation order for a 20mph limit or zone is required.

5.4 20mph area signage

- 5.4.1 In 20mph areas it is particularly important that the public understand the limit. This necessitates the need for repeater signs or markings within the area to reinforce the limit. National guidance on 20mph limits requires frequent signing (in the case of limits) or physical features with minimal signing (in the case of zones). Using 20mph areas gives Hertfordshire County Council more discretion with signing and allows consistency to ensure the public have a better understanding of what the speed limit is. It is proposed that where there is a 20mph area there would be repeater signs, roundels, or markings no less than every 200m unless local deviations are agreed with the Speed Management Group.
- 5.4.2 In historic areas discretion will be exercised to help limit signage and any departures from policy would be overseen by the Speed Management Group.
- 5.4.3 Further details of the signage requirements are given in Appendix D.

5.5 Experience of applying 20mph areas in Hertfordshire

- 5.5.1 It is recognised that there are variances in how 20mph speed limits or zones have been implemented across the county. These were correct at the time of installation but are not necessarily in line with our revised strategy and this revised framework and criteria should be applied to all schemes moving forward.

Section 6: Application of other speed limits

- 6.1.1 The default position is that 30mph limits are applicable in areas with street lighting and the national speed limit (60mph on single carriageway roads and 70mph on dual carriageway roads) applies in areas without.
- 6.1.2 Hertfordshire County Council has developed a Speed Limit Framework to guide the application of different speed limits in both rural and urban settings. This is contained in Section 7.
- 6.1.3 A process has been developed for the application of zonal 40mph speed limits in rural areas. The criteria applying to this is shown below.

KC19 The County Council will consider 40mph zonal rural speed limits subject to all of the following being met:

- The zone would be self-enforcing. Mean speeds on all roads within the zone will be 40mph or less once implemented.
- The zone would only be permitted on C and unclassified roads
- The zone will be within a defined geographical area, e.g. bounded by A & B roads or in an AONB.
- The zone would have a predominantly local, access or recreational function and/or form part of a recommended network of routes for vulnerable road users.

Section 7: Speed limit framework

Hertfordshire Speed Limit Framework - 20mph Limits and Zones What should the environment be like?	
Urban	Rural
Streets that are primarily residential and in other town or city streets where the pedestrian and cyclist movements are high, such as around schools, shops, markets, playgrounds and other areas, where motor vehicle movement is not the primary function (e.g. P2/M1 or P3/M1 Place and Movement categories) Prince Street, Watford  (DfT Circular 1/13 Setting Local Speed Limits - table 1 & para 90)	It may be appropriate to consider limits or zones in built up village streets which are primarily residential in nature (e.g. P2/M1 or P3/M1 Place and Movement categories) or where pedestrian and cyclist movements are high. Ashwell High Street  (DfT Circular 1/13 Setting Local Speed Limits - para 132)
Speed Limit Threshold Table - 20mph Areas What should speeds be before and after implementation?	

Before & After: Type or Limit or Zone:	Maximum Mean Speeds 'Before' Limit Implemented	Maximum Mean Speeds 'After' Limit Implemented
20mph limit	25mph	24mph
20mph Zone	varies	24mph
Advisory 20mph Limit outside schools (not legally enforceable)	30mph	To be monitored
Variable 20mph Limit	25mph	24mph (during operation of 20mph limit)

Hertfordshire Speed Limit Framework - 30mph

What should the environment be like?

Urban	Rural
The standard limit in built up areas with development on both sides of the road where motor vehicle movement is a priority. Cecil Road, Hertford 	Should be the norm in villages with 20 or more houses over a length of at least 600m, with a density of 3 houses per 100m. If there are fewer than 20 houses, extra allowance can be made for key buildings such as a place of worship, shop or school. Rabley Heath  <i>(DfT Circular 1/13 Setting Local Speed Limits - para's 131, 133 & 134 & TAL 1/04)</i>

Speed Limit Threshold Table - 30mph Limits

What should speeds be before and after implementation?

Type or Limit:	Maximum Mean Speeds 'After' Limit Implemented
30mph Limit	30mph

Hertfordshire Speed Limit Framework - 40mph

What should the environment be like?

Urban	Rural
- Higher quality suburban roads or those on the outskirts of urban areas. - Little development - Few vulnerable road users (pedestrians, cyclists and equestrians). - Good width and layout - Parking and waiting restrictions in operation - Buildings set back from the road - Wherever possible cater for the needs of non-motorised users through the segregation of road space, and have adequate footways and crossing places, or there should be convenient routes available and have adequate footways and crossings for NMUs. Herns Lane (Black Fan Road to Moors Walk), Welwyn Garden City 	Upper tier roads with predominantly traffic flow function (typically, A & B roads). Considered where any of the following apply: - High number of bends, junctions or accesses - Substantial development - Where there is a strong environmental reason - Where there are considerable numbers of vulnerable road users B656 London Road, Langley  Lower tier roads with important access and recreational facilities (typically C & unclassified roads). Considered where any of the following apply: - Roads with predominantly a local, access or recreational function - Forms part of a recommended route for vulnerable road users - Maybe appropriate if there is a particular collision problem. DfT Circular 1/13 Setting Local Speed Limits (para 128)

Speed Limit Threshold Table - 40mph Limits
What should speeds be before and after implementation?

Type or Limit:	Maximum Mean Speeds 'After' Limit Implemented
40mph Limit	40mph

Hertfordshire Speed Limit Framework - 50mph What should the environment be like?	
Urban	Rural
Dual carriageway ring or radial routes, or bypasses that have become partially built up Should be little or no roadside development (DfT Circular 1/13 Setting Local Speed Limits - table 1) Comet Way, Hatfield 	Upper Tier roads with predominant traffic flow function. (Typically, A & B roads): Lower quality A & B roads which have a relatively high number of bends, junctions and or access. Can also be considered where mean speeds are below 50mph, so lower limit would not interfere with traffic flow. (DfT Circular 1/13 Setting Local Speed Limits - table 2) Lower Tier roads with important access and recreational facilities. (Typically, C & unclassified roads): C and unclassified roads with a mixed function and high numbers of bends, junctions or accesses. (DfT Circular 1/13 Setting Local Speed Limits - para 128)  A602 between A10 and Anchor Lane
Speed Limit Threshold Table - 50mph Limits What should speeds be after implementation?	
Type of Limit:	Maximum Mean Speed 'After' Limit Implemented
50mph Limit	50mph

Hertfordshire Speed Limit Framework - 60mph What should the environment be like?	
Urban	Rural
Upper Tier roads with predominantly traffic flow function. (Typically A & B roads): Recommended for most quality and strategic A & B roads with few bends, junctions or accesses. Edge of urban areas close to strategic routes. Little or no pedestrian use. A1001 South Way Hatfield  A1001 Roehyde Way, Hatfield 	Upper Tier roads with predominantly traffic flow function. (Typically A & B roads): Recommended for most quality and strategic A & B roads with few bends, junctions or accesses. (DfT Circular 1/13 Setting Local Speed Limits - table 2) Lower Tier roads with important access and recreational facilities. (Typically C & Unclassified roads): Only appropriate for the best quality C and unclassified roads with a mixed function with few bends, junctions or accesses. B100 Welwyn  DfT Circular 1/13 Setting Local Speed Limits - para 128)
Speed Limit Threshold Table - 60mph Limits What should speeds be after implementation?	
Type of Limit:	Maximum Mean Speed 'After' Limit Implemented
60mph Limit	60mph

Hertfordshire Speed Limit Framework - 70mph What should the environment be like?	
Urban	Rural
A10 in Broxbourne between Lieutenant Ellis Way and College Road. 	Rural dual carriageway roads with segregated junctions and separate facilities for vulnerable road users. A lower limit may be appropriate if the collision history indicates that this speed cannot be achieved safely and this risk of collisions cannot be addressed through other engineering measures. (DfT Circular 1/13 Setting Local Speed Limits - para 121) A414 
Speed Limit Threshold Table - 70mph Limits What should speeds be after implementation?	
Type of Limit:	Maximum Mean Speed 'After' Limit Implemented
70mph Limit	70mph

Section 8: Supporting measures

- 8.1 The key principle for setting speed limits in Hertfordshire is that they should encourage self-compliance i.e. the speed limit should match the environment of the road section where possible.
- 8.2 There are however a number of supporting measures available to HCC to reinforce the speed limits and help ensure compliance to them as follows:
- Physical engineering measures (e.g. vertical and horizontal traffic calming).
 - Speed Indicator Devices (SIDs).
 - Speed enforcement - safety cameras.
 - New technology such as average speed cameras and variable message signs.
 - Education, training and publicity.
- 8.3 The following Sections (9-12) give further detail on each of these.

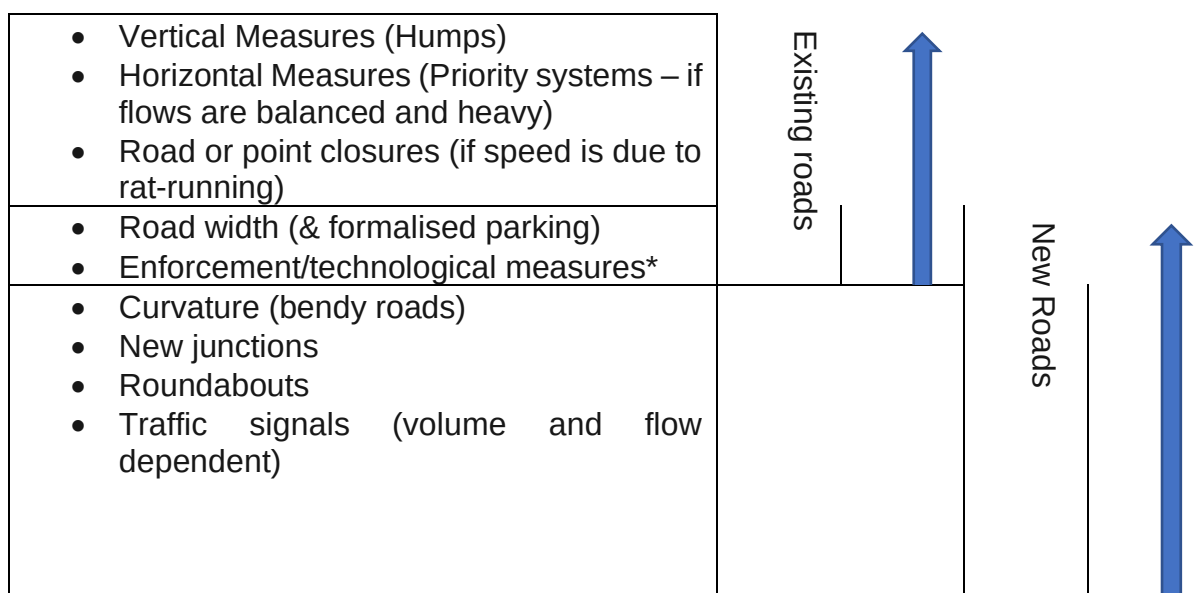
Section 9: Design influences and engineering measures

9.1 Introduction

- 9.1.1 HCC follows a policy of using design to dictate speed where possible. This has been found to be the most effective means to significantly change driver behaviour.
- 9.1.2 Mackie (1998) (TRL Report 363) stated that the use of static signs (as used to indicate a speed limit) only have a small effect on mean and 85th percentile speed. For speeds of 30mph and above these have an average reduction of 2mph. For 20mph areas these only give an average reduction of 1mph. Recent research by Atkins et al into 20mph (signed only) has confirmed this finding²
- 9.1.3 This approach is reinforced by advice given to drivers through the Highway Code (Rule 146) “Adapt your driving to the appropriate type and condition of the road you are on”. Road users should be prepared, anticipate and in the event of the unexpected be able to stop within the distance they can see to be clear. Given this advice it is important that drivers understand the speed they are expected to travel at through the layout and context of a road.
- 9.1.4 Designers wishing to change a speed limit must implement measures to change vehicle speed if the measured speed is above is above the range indicated in Table 4.1.
- 9.1.5 The measures which have been identified as having the potential to significantly change vehicle speed are as follows:

² Atkins, AECOM and Maher M (2018) 20mph Research Study

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757302/20mph-technical-report.pdf



*Future measures e.g. speed limiters in vehicles from 2022

9.1.6 Further guidance on the design of these measures can be found in **Roads in Herts or LTN 1/07**.

9.2 Implementation of engineering measures

- 9.2.1 Before engineering measures such as traffic calming measures are considered the engineer must consider if the existing speed limit is appropriate for the environment and if the extent of the proposed limit is correct. For example, if by moving the limit boundary from its current location would it make it more likely that vehicles would follow it (for example does the start of the limit reflect the village boundary?)
- 9.2.2 Where existing traffic calming features do not meet the key criteria these will be upgraded when significant maintenance works take place through the Integrated Works Programme.
- 9.2.3 HCC have set a number of criteria to guide the appropriate implementation of engineering measures and features such as speed limit buffer zones, Home Zones, and gateway and entry features and provide clarity on features such as countdown markers and Quiet Lanes. These are listed as criteria KC20 to KC46 below.

9.3 Key criteria for engineering measures

9.3.1 Speed limit buffer zones (KC20 & KC21)



On the outskirts of villages/urban areas, or where there is intermittent development beyond the existing 30mph, it may be appropriate to introduce a short (400-600m) section of intermediate speed limit if immediate speed reduction causes real difficulty or is likely to be less effective.

Guidance

DfT Circular 1/2013 Setting Local Speed Limits

KC20

Buffer zones provide a step down where the change in limits is significant. I.e. National to 30mph or National to 20mph and where there is evidence (or it is likely based on engineering judgement) that mean speeds are likely to be higher when entering the lower limit due to the absence of a speed reducing feature.

In some circumstances it might be appropriate to consider an intermediate speed limit of 40 mph prior to the 30-mph terminal speed limit signs at the entrance to a village, in particular where there are outlying houses beyond the village boundary or roads with high approach speeds. In this instance the choice of the buffer zone speed limit must reflect actual vehicle speeds.

KC21

DfT circular 01/2013 states that buffer zones should generally be no less than 600m. In exceptional circumstances lengths of between 400 – 600m can be considered. Advice in these instances should be sought from the Speed Management Group (See Section 14).

9.3.2 Speed limit countdown markers (KC22)



Countdown markers have been used on the approach to speed limit terminal signs to highlight to drivers that they are approaching a lower speed limit. Legislation does not prescribe the use of countdown markers on the approach to speed limit terminal signs.

KC22

Countdown markers are not be used due to lack of supporting legislation.

9.3.3 Home Zones (KC23 – KC25)



Home Zones aim to improve the quality of life in residential roads by making them places for people, instead of just being thoroughfares for vehicles. The key elements to a Home Zone are:

- Community involvement to encourage a change in user behaviour
- For the road to be designed in such a way as to allow it to be used for a range of activities and to encourage very slow vehicle speeds (usually involving sensitively designed traffic calming).

Guidance

- Transport Act 2000
- **SI 2006 No. 2082** - The Quiet Lanes and Homes Zones (England) Regulations 2006
- **DfT Circular 2/06** The Quiet Lanes and Home Zones (England) Regulations 2006

- LTN 1/07 Traffic Calming - Section 3.1 Shared road space
- TAL 8/02 Home Zones - Public Participation
- TAL 10/01 Home Zones - Planning and Design
- Manual for Streets

KC23

Home Zones will only be considered where mean speeds are 24mph or less.

KC24

A Home Zone will only be considered where the afternoon peak flows are less than 100 vehicles.

KC25

Due to their expense, all requests for Home Zones will be considered by the Speed Management Group (See Section 14).

9.3.4 Quiet Lanes (KC26)



Quiet Lanes are minor rural roads that are appropriate for use by walkers, cyclists, horse riders and motorised users. These roads should have low levels of traffic, travelling at low speeds.

The aim of Quiet Lanes is to maintain the character of minor rural roads by seeking to contain rising traffic growth that is widespread in rural areas.

The Quiet Lanes concept involves two key elements:

- Local community engagement to encourage a change in driver behaviour.
- Area wide direction signing strategy to re-route traffic and Quiet Lane network signing.

The concept is aimed at identifying networks of minor rural roads and is not solely about addressing issues on individual roads. Where possible public rights of way should be included within these networks.

The concept is not intended as a device to traffic calm busy roads or to address issues of rat running and heavy goods vehicle movements.

Experience

National Pilot Projects:

Quiet Lanes pilots first took place in Kent and North Norfolk. Before and after surveys were carried out which showed mixed results in terms of vehicle speeds with changes of between +0.1mph and – 2.3mph.

The monitoring also showed that vehicle flows were reduced slightly compared to control roads in both of the demonstration projects.

Hertfordshire Pilot Project

Hertfordshire then followed with its own pilot in the country lanes between Ayot Green and Wheathampstead. The before and after study showed that there were no significant reductions in vehicle speeds.

Guidance

- **SI 2006 No. 2082** - The Quiet Lanes and Homes Zones (England) Regulations 2006
- **DfT Circular 2/06** The Quiet Lanes and Home Zones (England) Regulations 2006
- **LTN 1/07** Traffic Calming - Section 3.1 Shared road space.
- **TAL 3/04** - Quiet Lanes

KC26

Quiet lanes are gateway features within rural areas. However, based on evidence collated from previous work (including the Hertfordshire trial), Quiet Lanes will not be implemented due to their limited success.

9.3.5 Gateway and entry features (KC27 & KC28)



Gateways are used to signify the approach into a settlement or traffic calmed area. They can take many different forms, but those implemented to date have most commonly incorporated:

- a distinctive change in road surface colour or material
- a prominent sign to alert drivers to the calmed area
- 'Dragons Teeth'

Gateway features are normally used on the approach to settlements to reinforce a lower speed limit and reinforce the village identity.

An entry treatment is a form of a gateway and is usually used in urban areas. Entry treatments have been developed for use at side roads to let drivers know that they are leaving a major road and entering an area of different character, which may be a residential road. They may indicate the start of a series of traffic calming measures, or they may identify the gateway at the boundary of a 20mph zone or Home Zone.

Guidance

LTN 1/07

KC27

Gateway and entry features will be only be considered as part of a package of measures to assist in the reduction of vehicle speeds.

KC28

Careful consideration will be given to material choices for gateway and entrance features in relation to future maintenance liabilities

9.3.6 Chicanes (KC29 & KC30)

Chicane designs vary considerably but most fall into two broad categories:

- Single lane working, consisting of staggered build outs and narrowing the road so that the traffic from one direction has to give way to opposing traffic
- Two way working, using build outs to provide deflection but with lanes separated by road markings or a central island.



A single lane working chicane allows traffic flow in both directions, but there is only room for one vehicle to pass at a time. Generally, priority is given to one direction, so that the possibility of vehicle conflicts is minimised. Priority should be given to vehicles leaving a traffic-calmed area, so that the speed of vehicles entering is reduced.



Two way working chicanes require more carriageway width than single lane chicanes, as they allow two vehicles to pass in opposite directions at the same time. Where chicanes do not have a central divider, vehicles can encroach into the opposing traffic lane, and this may result in less speed reduction being achieved, and/or safety being compromised.

Guidance

LTN 1/07 Traffic Calming

KC29

When using single way working, two-way vehicle flows should not exceed 3,000 vehicles per day and shall not exceed 4,000.

KC30

Chicanes can be used on roads with a speed limit of 40mph or below.

9.3.7 Pinch points (KC31 & KC32)

A pinch point is where the road is narrowed from both sides at the same position along the road for a distance of 5 to 10m. By implementing this measure, the carriageway width can



be restricted so that only one vehicle at a time may pass, or so that two vehicles can pass slowly. Roads with a high frequency of buses and/or heavy goods vehicles need a wider carriageway width between the pinch points.

Pinch points can be used as crossing points for pedestrians, but this would prevent a cycle bypass being installed. As this measure creates conflict between vulnerable users (one's benefit is traded for another) consider alternative measures before using pinch points as pedestrian crossing points.

Guidance

LTN 1/07 Traffic Calming

KC31

Pinch points will not be used in isolation to reduce vehicle speeds, only as part of a package of measures.

KC32

Pinch points will not be used in a road with a speed limit above 40mph.

9.3.8 Central islands and refuges (KC33)

Central islands and refuges can be installed in the middle of the carriageway to narrow the width of the traffic lanes and assist in reducing vehicle speeds. Such facilities must be accompanied by the relevant road markings.



These can create pinch points for cyclist if designed to reduce traffic speed.

Guidance

LTN 1/07 Traffic Calming

KC33

Central islands and refuges will only be used as part of a package of measures in order to reduce speeds. They will not be used in isolation for the purpose of traffic calming.

9.3.9 Round top and flat top humps (KC34 & KC35)



Round top and flat top humps have been used extensively across Hertfordshire. Flat top humps having the added benefit that they can also be used as raised crossing points in appropriate locations.

Guidance

- **SI 1999 No. 1025** - The Highways (Road Humps) Regulations 1999
- **LTN 1/07** Traffic Calming
- **Bus Infrastructure in Hertfordshire – A Design Guide** (June 2011)
- **Protocol for the construction of Vertical Traffic Calming** WCS-D-172

KC34

Humps shall be more than 25m from a bus stop. Speed cushions are preferred to speed tables on bus routes.

KC35

Round top humps are not permitted on bus routes and the principal (A) road network.

9.3.10 Cushions (KC36 & KC37)

Cushions are favoured more commonly over road top and flat top humps.



However, they are not effective against all vehicle classes. Large vehicles and motorcycles in particular can either straddle or pass between the cushions. Designers should look at the proportions of these particular types of vehicles when designing a scheme to see if overall it will be effective.

Guidance

As 9.3.9

KC36

Parking restrictions may be needed near cushions on bus routes.

KC37

Cushions will be constructed in asphalt due to whole life cost of the alternatives.

9.3.10 Sinusoidal humps

Sinusoidal humps are type of road hump which have a less severe profile for cyclists. These have not yet been used in Hertfordshire, but we are open to discussions about their use.

Guidance

LCDS

9.3.11 Rumble strips (incl. Rumblewave) (KC38 –KC41)

Rumble strips

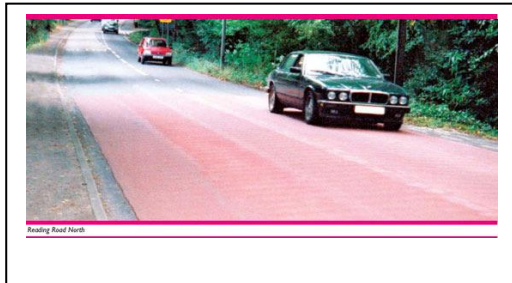
Rumble devices are designed to provide a vibratory and/or audible effect. They are intended to alert drivers to take greater care in advance of a hazard such as a bend or junction, and to help in reducing vehicle speeds.



Reliance should not be placed on such traffic calming surfaces alone when seeking speed reduction.

Rumblewave

TRL Ltd was commissioned to develop a profile that would create noise and vibration within vehicles passing over it, but not increase noise levels significantly for those outside the vehicles.



Guidance

LTN 1/07 Traffic Calming

TAL 1/05 Rumblewave Surfacing

KC38

Rumble strips should be used across the full width of the carriageway to avoid vehicles swerving to avoid them.

KC39

Rumble strips must be more than 200m from any residential property and are therefore suited to rural areas.

KC40

Rumble strips should only be used as a part of a package of measures (i.e. as part of a village gateway).

KC41

Rumblewave surfacing is not recommended due to concerns over its effectiveness and the whole life cost of the product.

9.3.12 Mini roundabouts (KC42)



Mini roundabouts assist in giving easier access from side roads. A mini roundabout should not be considered as a traffic calming measure in isolation and should only be considered as a package of measures.

Guidance

TD54/07 [Superseded]

KC42

Mini roundabouts should only be considered as a part of a package of measures to reduce vehicle speeds.

Section 10: Speed Indicator Devices (SIDs)

10.1 Introduction

- 10.1.1 Speed Indicator Devices (SIDs) are used to remind drivers about speed limits and are a tool that can be applied in locations where there is a disparity between the posted speed limit and what the observed speeds are. They are informational signs only and are not linked to any enforcement, however they have been popularly installed in Hertfordshire. Evidence suggests that the use of the signs work to change community perceptions of traffic speeds.
- 10.1.2 The county council provide new Speed Indicator Devices (SIDs) predominantly using non-core budgets, such as county councillor Highways Locality Budget (HLB)/Locality Budget or third-party funding from recognised groups or organisations e.g. parish councils. SIDs may be funded from core budgets if identified through other work programmes or used to replace non-functioning Vehicle Activated Signs if applicable.
- 10.1.3 SIDs consist of a screen, radar detector and solar panel/battery unit, mounted on a pole held within a retention socket or foundation. When movement is detected in the field of view, the device triggers and returns a value (speed in mph) that is then displayed on the screen to oncoming vehicles, along with either a 'happy' or 'angry' face depending on the rate of travel in relation to the speed limit. More excessive speeds trigger a 'Too Fast' message.
- 10.1.4 Retention sockets allow the SIDs to be relocated to other locations or to be swivelled in their current location to face a different direction of travel. Relocating or swivelling SIDs regularly has been demonstrated to have greater influence on traffic speeds, as SIDs become less effective if retained in the same location for longer than six months.
- 10.1.5 SIDs should not be confused with Vehicle Activated Signs (VAS) covered elsewhere in this document that have different criteria. VAS signs are distinguishable as they do not display a vehicle's travelling speed but instead typically an image of the posted speed limit or a hazard ahead e.g. bend in the road (the distinction between VAS and SIDs is highlighted in DfT Circular 01/17).

10.2 Speed criteria

10.2.1 Requests for new SIDs are considered by HCC's Locality Team, as SIDs are predominately funded by HLB. SIDs part or fully funded by third parties are also administered by the Locality Team. A potential funding source must be identified to allow for the additional criteria checks to be undertaken.

10.2.2 SIDs and sockets installed with HLB, PCC or HCC's core budgets must meet at least one of the following speed criteria:

- Average Speed must be above the posted speed limit.
- The 85th Percentile speeds must be over the NPCC's guideline values i.e. 10% of the posted limit and an additional 2mph.

Table 10.1 SID recommended speed ranges

Posted speed limit	Minimum average speed limit	Minimum 85 th Percentile speed
20mph	20.1mph	24mph
30mph	30.1mph	35mph
40mph	40.1mph	46mph

10.2.3 Roads above 40mph are not recommended for SID installation, and would instead require a full case/feasibility study – this may produce a package of measures including a SID.

10.2.4 The speed criteria may only be satisfied using speed survey data produced by either HCC or the police over a full seven-day period. Existing data (no older than five years) may be used if no significant change to the environment has occurred since the data was collected.

10.2.5 SIDs and sockets fully funded by third parties (no HLB or PCC) are not required to satisfy the speed criteria but should still be placed in accordance with the following location requirements.

10.3 Location requirements

10.3.1 In addition to satisfying any speed criteria, SIDs need to be placed in a safe and operational location and the conditions listed in Table 10.2 need to be met.

Table 10.2 Suitable conditions for the installation of SIDs

Item	Requirement
Data Collection Safety	There is sufficient access to the site to allow the safe collection of data.
Daylight	The proposed location will receive a high level of daylight and is free of existing or seasonal vegetation. The solar panel should be facing as close to due south as possible.
Footway Clearance	At least 1.5m footway sideways clearance (if present) is available for pedestrians.
Forward Visibility	There is forward visibility of at least 50m (20-30mph limit) or 75m (40mph limit).
Highway Land	The proposed location is on highway land, supported by a recent boundary plan.
Multiple Detection Vectors	The SID will not activate for roads running adjacent or parallel to the site.
Operational Distance	The SID has no large obstructions (gates/fences, buildings, railings) within 100m.
Property Boundary	If necessary to install outside of a property, the SID should be sited on a boundary line so as to not interfere with an existing or potential access.
Set Back	The proposed location for the pole is set back at least 1.0m from kerb edge, or 0.5m from the edge of the sign (greater distances are required for higher speed roads and/or if the SID is positioned on a bend/junction radius).
Single Carriageway	The SID serves a single carriageway road.
Underground Obstructions	The site is clear of any utility or manhole covers or trenches that may suggest interfering with placement (check of underground utilities will also be undertaken).
Structures	The proposed location is at least 5m from a bridge, culvert, or other structure.
Vertical Clearance	There is at least 2.4m vertical clearance (this should be standard at point of install) – if the sign overhangs

	a cycle track or shared use space, this should have a minimum of 2.5m vertical clearance.
Visibility splay of other signs	The sign is clear of the visibility splay of other highway signs.
Vegetation	Double check vegetation and likely vegetation growth if the site is inspected during autumn/winter. Vegetation will be the likely reason that a SID is impeded, whether to the forward visibility to the sign or to the solar panel.
Within speed limit	The SID will not activate outside of the speed limit it is intended to indicate.

10.4 SID effectiveness

10.4.1 Transport Research Laboratory's Published Project Report PPR 314, 'Effectiveness of Speed Indicator Devices on reducing vehicle speeds in London', highlights that for SIDs to be effective they must be moved regularly, and when effective shows a reduction in mean speeds of approximately 2 mph.

10.5 SID relocations/swivels

10.5.1 Placing SIDs in retention sockets allow for them to be relocated and swivelled. This will not happen routinely but instead upon request by the applicant at their own expense.

10.5.2 Given the benefits of moving SIDs to keep them effective, applicants are strongly advised to consider providing additional sockets and the funds to routinely move the SIDs.

10.6 Data collection and use

10.6.1 SIDs store up to 200,000 unique events in their internal memory – this includes information as to the date, time, and speed of traffic recorded. This data can be downloaded by HCC only and subsequently cleared from the device via a mobile application.

10.6.2 HCC does not routinely undertake the collection of data, due to the resources required and potential inaccuracies with the data. Applicants may request data for which a fee will be charged.

10.7 Commuted sum

10.7.1 The price to install a new SID includes a commuted sum, to provide for maintenance and replacement for a set period, currently five years after first installation with a further commuted sum due at the start of year six to cover the period of 10 years after first installation. Where a commuted sum is not paid any SID that is damaged or irreparable will be removed and not replaced. The same applies for SIDs that go beyond the period covered by the commuted sum.

10.8 Third-party funding

10.8.1 The success of SIDs within local communities often leads to a demand that cannot be met solely by using the councillors' HLB. Third-party funding for SIDs has therefore become increasingly used, from sources such as the PCC, town and parish councils, and recognised Resident Associations. SIDs cannot be funded by private individuals.

10.8.2 County councillor Locality Budget is considered as third-party funding for this purpose.

10.8.3 Irrespective of the funding source, the SID becomes an HCC asset once installed – a third-party is not able to move or access the SID without ordering or requesting such services through HCC

10.9 Key Criteria for installation

Key Criteria - Speed Indicator Devices (SIDs)

KC43 SIDs funded using the Highways Locality Budget (HLB), the Police and Crime Commissioner's Road Safety Fund (PCC), or HCC core budgets must meet at least one of the following speed criteria:

- ☐ Average speed must be above the posted speed limit.
- ☐ The 85th Percentile speed must be over the National Police Chiefs' Council's (NPCC) guideline values.

KC44 SIDs funded by other sources (not HLB, PCC or HCC core budgets) are not subject to the speed criteria.

KC45 SIDs are not recommended for speed limits above 40mph.

KC46 In all cases SIDs are required to also satisfy the location requirements (see Table 10.2).

Section 11: Safety and speed cameras

11.1 Introduction

- 11.1.1 The primary objective for using safety cameras on the highway is to reduce deaths, injury and health loss resulting from collisions on Hertfordshire's road network through enforcing the speed of traffic and reducing red-light running. The camera service is operated by the Hertfordshire Safety Camera Partnership which comprises Hertfordshire County Council, Hertfordshire Constabulary, and Hertfordshire Magistrates Court.
- 11.1.2 Before any camera technology can be used on a public highway it must hold Home Office Type Approval for it to be legally enforceable.
- 11.1.3 Details of current Safety Camera locations can be found at:
www.hertfordshire.gov.uk/services/highways-roads-and-pavements/speed-awareness-and-driver-training/safety-camera-locations-speed-cameras/safety-camera-locations-speed-cameras.asp
- 11.1.4 Evidence from independent evaluations of the National Safety Camera Programme has consistently shown that the use of cameras has been effective when deployment was based upon locations where a specific level of killed or seriously injured (KSI) collisions and excessive speed above NPCC thresholds had occurred.
- 11.1.5 Following the implementation of safety cameras within Hertfordshire the following averaged results have been recorded. Collision reduction figures in Table 11.1 below compare a three-year period before installation with the most recent three year after installation, for safety cameras in Hertfordshire. This information shows the continued effect that the safety cameras continue to have in reducing collisions and traffic speeds.

Table 11.1 Safety Camera Collision Reduction

	Static	Mobile	Red light
Collision reduction KSI	48%	39%	47%
Collision reduction all severity	78%	71%	80%
Speed reduction	7.1mph	2.3mph	N/A

11.2 Criteria for site selection and implementation

11.2.1 Stringent criteria are used (Appendix F) for the selection of sites, based on collected data from police Stats 19 forms collated over the previous three-year period. An emphasis is placed on the number of people killed or seriously injured. The use of cameras should be proportionate, targeted, consistent and transparent in line with NPCC/ACPO guidance.

11.2.2 The collision criteria vary for static, mobile and red-light cameras. An assessment of speed data is also required. Other cost-effective measures must be considered as part of the selection process before safety cameras are chosen as a potential option.

11.3 Current technology

11.3.1 The following technology is currently used in Hertfordshire:

- rearward facing static cameras.
- forward facing static cameras.
- simultaneous bi-direction cameras.
- red light static cameras.
- mobile vans equipped with laser cameras.
- average safety cameras used by the Highways England for road works enforcement.
- limited average speed cameras used by the Hertfordshire Office of the Police and Crime Commissioner (OPCC).

11.4 Emerging technology and use in Hertfordshire

- 11.4.1 Technology is ever changing and we are aware that a number of safety camera devices based on camera systems linked to Automatic Number Plate Recognition systems are in 'Type Approval' stage with the Home Office. All make use of digital and radar sensor technologies. HCC will continue to monitor the technological developments and identify potential opportunities for piloting or trialling new types of system.
- 11.4.2 Hertfordshire was an early adopter of digital camera technology and is now in a good position with very few locations requiring upgrades.
- 11.4.3 It is also noted that in vehicle technology such as intelligent speed assistance systems are now supporting the camera partnership's wider objectives enabling motorists to achieve greater self-compliance with posted speed limits.
- 11.4.4 Average speed technology will be considered through our route criteria contained within Appendix F, where deemed appropriate, and if funding is available. This technology works best on motorways and dual carriageways with large distances between junctions, which enables monitoring over a reasonable distance. In urban areas the current technology has been shown not to work as effectively as more junctions require more camera locations to cover a zone. Moreover, these systems do not allow for instances where, for example, a pelican crossing will stop traffic. The approach and exit speeds can be very high but, due to the delays during the journey, the average speed technology would not recognise an offence having been committed.
- 11.4.5 All sites funded through the Safety Camera Partnership will be known as core sites. These are defined where analysis of collision data identifies locations, routes or areas which are higher than the agreed criteria in Appendix F for numbers of collisions where people have been killed or seriously injured or there are patterns within the personal injury collisions which are likely to be susceptible to reduction by safety camera enforcement.
- 11.4.6 Another category of sites is community concern sites. These are ones that do not meet core site criteria but do have documented and widely supported concerns, either from the local community or partner agencies. These are associated with genuine levels of traffic violation which give rise to a concern for harm, or which reduce the take up of active travel.
- 11.4.7 These sites typically suffer from non-compliance with the speed limit (in excess of NPCC enforcement thresholds) which is often anti-social and intimidating. There may or may not be an associated number of collisions and injuries. These sites will usually only be funded from external sources and are subject to separate criteria. Any assessment is nevertheless evidence led to determine the scale of the problem and will consider whether enforcement is justified, fair and proportionate based

on speed data, use of the road by vulnerable road users and levels of community and political support.

11.4.8 One specific source of funding for concern camera sites is the PCC's Road Safety fund. Cameras installed at these locations are owned and operated by the OPCC who provide a commuted sum to HCC for ongoing maintenance (although HCC would have responsibility to make the cameras safe if they were damaged).

11.4.9 Whilst criteria for concern sites still need to be agreed these could include the following:

- (i) That a genuine speeding issue has been identified (i.e. 85th percentile speeds are above the limit and above the APCO tolerance thresholds)
- (ii) That there is the support of the parish/town council and community
- (iii) There is agreement from the police
- (iv) That there is HCC member support

11.4.10 This should avoid the situation experienced elsewhere in the country where large numbers of cameras have been deployed in a variety of disparate locations putting additional maintenance liabilities on local councils and additional pressure on police back office staff to operate them.

11.4.11 Other non-core sites for potential camera deployment are Traffic Management sites. These are sites where analysis identifies that traffic management is required to mitigate objectively identified increased risks of harm for road users where a highway is being modified in design or use. This may include HADECS sites installed and operated by Highways England on smart motorways.

11.4.12 Another non-core site is known as an event based site. These are where objective analysis identifies the potential to maximise deterrent value to offending or anti-social behaviour by using cameras at locations where significant offending takes place, or offenders gather.

11.4.13 All new sites require the agreement of the Speed Management Group.

11.5 Key criteria for installation of cameras

Key Criteria - Safety Cameras

KC47 The County Council will use the 'Criteria for Safety Camera Site Selection and Implementation' matrix in Appendix F to assess the suitability and implementation of locations for safety cameras.

11.5.1 The table in Appendix F sets out further detail on how this is applied for different types of camera being used by Hertfordshire County Council for proposed camera sites to be operated by the Safety Camera Partnership, based on Department for Transport guidance documents.

Section 12: Education, training and publicity

12.1 Education

12.1.1 The county council, as part of the Hertfordshire Road Safety Partnership, delivers a range of educational programmes for pedestrians, cyclists, motorists and other road users. All of these programmes make reference to the dangers of speed to the individual and/or other road users. Training activities which have a clear emphasis on speeding issues are set out in this section.

Learn2Live

12.1.2 Younger people continue to be disproportionately represented in Hertfordshire's KSI casualty statistics and there are several reasons including:

- lack of experience and poor hazard perception.
- an often too casual and over-confident attitude to speed.
- low risk awareness and peer pressure.

12.1.3 In response the [Hertfordshire Road Safety Partnership](#) runs a young road user event for approximately 7,500 students every year. It is acclaimed by attendees and has been verified as positively changing the attitudes of young drivers and pre-drivers.

National Driver Offender Retraining Scheme Courses (NDORS)

12.1.4 HCC deliver the full range of NDORS courses on behalf of Hertfordshire Constabulary. These courses provide eligible offending drivers with a short course of retraining as an alternative to punishment for low-level speeding and other driving offences.

12.1.5 The National Speed Awareness Course (NSAC) in particular, has the primary objective of encouraging and facilitating compliance with speed limits. The course aims to influence the attitudes and behaviour of drivers by directly challenging attitudes towards speeding, offering motorists insight, awareness and understanding about their speed choices, and helps equip participants to change their behaviour.

12.1.6 The findings from national evaluation in 2018 showed that participation in the National Speed Awareness Course has a larger effect in reducing speed reoffending than the penalty points and fine associated with Fixed Penalty Notices for the types of driver offered the course.

12.1.8 Further web-based information on safer driving, coaching for advanced driving and motorcycling tests is provided on the Hertfordshire County Council website at <https://www.hertfordshire.gov.uk/services/Highways-roads-and-pavements/Speed-awareness-and-driver-training/Speed-awareness-and-driver-training.aspx>

12.2 Publicity campaigns

12.2.1 The Members of Hertfordshire's Road Safety Partnership deliver a range of publicity campaigns aimed at raising the awareness of unsafe behaviours (often referred to as the 'Fatal 5') including inappropriate and excess speed. These are coordinated to support the National Chief Police Council's road safety calendar. These campaigns are data and intelligence led and based on the at-risk groups and issues identified in the Road Safety Strategy.

Key Criteria - Education, Training & Publicity

KC48 The County Council will continue to run and develop education, training and publicity programmes to reduce speed related collisions.

Section 13: Speed enforcement

13.1 Introduction

13.1.1 The police, county council as Highway Authority, and Safety Camera Partnership have important roles to play in relation to speed enforcement.

- The Chief Constable of Hertfordshire is responsible for the direction and control of officers and staff who are members of the constabulary. The Constabulary are responsible for speed enforcement.
- Hertfordshire County Council (HCC) is the highway authority and the traffic authority for the county of Hertfordshire pursuant to the Highways Act 1980 and the Traffic Management Act 2004 respectively and is responsible for management of speed on all public roads in Hertfordshire except those operated by Highways England. The county council as, Highway Authority, is responsible for setting speed limits.
- The Hertfordshire Safety Camera Partnership installs, operates and maintains all safety cameras other than those operated by Highways England and the police and Crime Commissioner. The Partnership seeks to reduce road collisions and casualties through the prevention, detection and enforcement of speed and red-light offences.

13.2 The role of the police

13.2.1 Hertfordshire Constabulary

By conducting speed enforcement and education activity at locations identified as having a speed related collision history the police intend to try to reduce the number of collisions and casualties occurring on our roads as well as contributing to achieving road safety targets.

13.2.2 The police will use the 'Hertfordshire Constabulary Speed Enforcement Guide' (see flowchart in Appendix G) focusing Roads Policing Unit officers at speed related collision history sites and SNT officers at speed complaint sites.

13.2.3 The police have finite resources and competing demands for officer's time. Officers will be deployed to conduct speed enforcement activity at qualifying locations following analysis of the speed related RTC data or approval by the area Safer Neighbourhood Team (SNT) priority setting forum. This is intended to ensure enforcement is focused at locations with a history of speed related collisions but do generate enforcement requests. The 'Hertfordshire Constabulary Speed Enforcement Guide' can be found in Appendix G.

13.3 Priority setting forums:

- 13.3.1 If enforcement activity is requested at a location not already benefiting from police speed enforcement it may be added to the list for periodic attention provided it has been agreed by the Priority Setting Forum and authorised by the police Inspector responsible for that area. This can include locations where there is no history of collisions.
- 13.3.2 Priority Setting Forums represent every ward within the County and meet regularly to select specific issues they wish local SNT officers to concentrate on during the next quarter. To find out when a Priority Setting Forum is taking place or what the current priorities are, please contact the relevant SNT. Contact details can be found at: <https://www.police.uk/pu/your-area/hertfordshire-constabulary/> then click on the individual neighbourhoods for SNT contact details.
- 13.3.3 Each time a road traffic personal injury collision is reported to the police, comprehensive details about the circumstances involved are recorded on a STATS 19 form. This data is shared with the Highway Authority who use it to identify locations where engineering or educational activity may be used to address a particular problem.
- 13.3.4 For speed enforcement purposes the police use this data to identify the locations that most frequently experience speed related collisions so they can be considered for enforcement.
- 13.3.5 In simple terms, provided it is safe and practical to conduct enforcement then the more speed related personal injury collisions that have occurred at a location the more likely it is to benefit from police enforcement activity.

13.4 The role of the police and crime commissioner

- 13.4.1 The Government's Police Reform and Social Responsibility Act replaced Police Authorities with elected Police and Crime Commissioners on 22 November 2012.
- 13.4.2 David Lloyd was elected as the County's first Police and Crime Commissioner in 2012 and continues to fulfil that role. The Police and Crime Plan for Hertfordshire 'Everybody's Business: Community Safety and Criminal Justice Plan 2019 –2024' recognises that speeding takes a high toll in relation to those killed or seriously injured on the roads and seeks to address concerns raised by residents through the use of his Road Safety Fund.
- 13.4.3 As well as working closely with the Chief Constable of Hertfordshire Constabulary the Commissioner works with the full range of other public services (for example

local government, the courts and the fire service) that deal with or can help prevent crime. Together work is being undertaken to reduce crime, keep communities safe and ensure that the criminal justice system works well.

13.4.4 Community DriveSafe Campaign:

The campaign allows residents to come together, and petition the Commissioner, with their concerns about vehicles travelling in excess of the speed limits in their area. Ten or more signatures from people living or working in the vicinity are required and of those at least three people will be needed to volunteer to run the scheme and use roadside speed monitoring equipment to encourage speeding motorists to slow down. There are currently 28 active groups across the county helping to educate speeding motorists of the dangers they present.

13.4.5 The volunteers will be trained by their local police officers in operating safely near highways and in how to use the speed management equipment. They will also be equipped with high-visibility jackets and warning triangles. This works in two ways - for the safety of the volunteer and to highlight to motorists and the wider community that DriveSafe activity is going on.

13.4.6 The speed monitoring device indicates the speed of passing vehicles, showing a 'smiley face' to those travelling within the speed limit and a 'sad face' if they are over the limit. The volunteers will record the car registration numbers of vehicles travelling in excess of the speed limit and warning letters will be sent to the registered keeper of the vehicle. The volunteers can also record anti-social or dangerous driving, such as occupants not wearing seat belts or drivers using their mobile phones.

13.4.7 It is proposed that the DriveSafe scheme will be supported by a number of community safety vans or mobile units which can respond to requests from communities around speeding and other dangerous and careless driving matters, including but not limited to using a mobile phone and not wearing a seat belt.

13.4.8 The local SNT police officers may also use speed enforcement, where appropriate, to target drivers who persistently drive in excess of the speed limit. This can result in offenders facing a fine, points on their licence or prosecution in court.

13.4.9 For further information about the Community DriveSafe scheme please visit the following web page: <https://www.hertscommissioner.org/community-drivesafe-scheme-hertfordshire>.

Section 14: The role of the speed management group

14.1 Purpose of the group

14.1.1 A formal process is in place to consider speed limit changes and ensure a consistent approach is followed. Any requests for changes to speed limit must be submitted with the correct forms completed and sent to the Chair of the Speed Management Group for consideration/ approval prior to consultation and again following legal advertisement. Speed limit changes will not be implemented without the approval of the group.

14.1.2 The Speed Management Group (SMG) is a policy led officer group which meets quarterly. It has been set up to ensure consistent decisions are made in relation to speed limit change requests. The SMG meeting minutes are available and where appropriate the chair will contact parties affected by decisions.

14.1.3 A key role of the group is to ensure the key criteria within the strategy are being followed and consistently applied. This includes:

- Consideration and agreement of requests for speed limit changes.
- Provide consistency with the application of speed limits across the county.
- Reviewing the success of speed compliance schemes and using the feedback to lead to improvements in the delivery of speed compliance schemes.

14.2 Membership of the group

14.2.1 The Speed Management Group is comprised of officers from the following areas and organisations:

- Hertfordshire County Council
 - Highways Safety Team
 - Highway Design
 - Highways Strategy
 - Development Management
 - Network Management
 - Road Safety Programme Manager
- Police
- Road Policing Unit

Section 15: Potential funding

15.1 Introduction

15.1.1 Funding for the implementation of speed reduction measures is limited and will be subject to internal and external bidding procedures. It cannot therefore be assumed that funding is available for widespread implementation of traffic calming measures to support reductions in speed limits.

15.1.2 Speed management schemes and supporting measures can potentially be funded through a number of sources. These are:

- Local Transport Plan funding
- External funding (e.g. borough, district & parish councils, grants)
- Hertfordshire County Council Highway Locality budgets
- Police and Crime Commissioner's Road Safety Fund

15.1.3 Speed management measures may also be required through the planning process and delivered by the developer, possibly as part of Section 278 works or alternatively a funding contribution towards them may be secured from the developer as part of Section 106 funding. This process is overseen by Development Management at HCC.

15.1.3 Funding is limited and often conditional as summarised overleaf

15.2 Local transport plan funding

15.2.1 Local Transport Plan capital funding is used to deliver the county council Integrated Transport Programme (ITP). ITP schemes are a core part of the County's Highways Service, delivering a mixture of transport and highway improvement measures across the County. ITP schemes support the delivery of the council's LTP4 nine transport objectives (as outlined in Section 2).

15.2.2 The ITP programme is central to LTP 4's Policy 1, the Transport User Hierarchy. This supports the creation of built environments that encourage greater and safer use of sustainable transport modes and the development of ITP schemes will reflect the transport user hierarchy i.e.:

- Opportunities to reduce travel demand and the need to travel.
- Vulnerable road user needs (such as pedestrians and cyclists).
- Passenger transport user needs.
- Powered two-wheeler (mopeds and motorbikes) user needs.
- Other motor vehicle user needs.

15.2.3 The types of changes delivered by the programme include introducing traffic calming measures, the introduction of 20mph areas, new pedestrian crossings, new cycling infrastructure, and urban realm improvements. The Speed Management Strategy can be used in the development of an ITP scheme to deliver changes to the county's streets and roads to support walking, cycling and public transport use and ensure that speed limits are appropriate for the level of people activity in the area (as indicated by its Place and Movement function).

15.2.4 An annual ranking process is undertaken to prioritise safety related schemes for the ITP programme.

15.3 Section 106 funding

15.3.1 S106 funding obtained through developer's contributions can be used for speed management schemes and measures if:

- It is appropriate to the wording of the agreement, and
- The HCC Environment and Infrastructure Department Highways and Transport S106 Guidelines have been followed.

15.4 External funding (e.g. borough, district and parish councils, grants)

15.4.1 Where possible the county council will work with the other local councils to jointly fund speed management schemes and measures which meet the objectives of both parties.

15.5 Hertfordshire County Council Highway and Locality Budgets

15.5.1 Member Locality budgets can be used towards speed management schemes and measures, as long as the key criteria in the strategy are followed. This is subject to agreement of the local member. Locality budgets have typically been used to fund the installation of SIDs.

15.6 Police and Crime Commissioner Road Safety Fund

15.6.1 The Police and Crime Commissioner's Road Safety Fund is an additional source of funding available to any organisation that can contribute to improving road safety across the county. This funding stream is managed by the Hertfordshire Road Safety Partnership and may be used to fund 'community concern' speed management schemes and measures with a focus on education (such as the SIDs) and enforcement (e.g. camera technology) rather than engineering measures which are seen as a highways function.

Section 16: Process for changing speed limits

16.1 Introduction

16.1.1 HCC have devised a 4-stage process for considering a request for a speed limit change as follows:

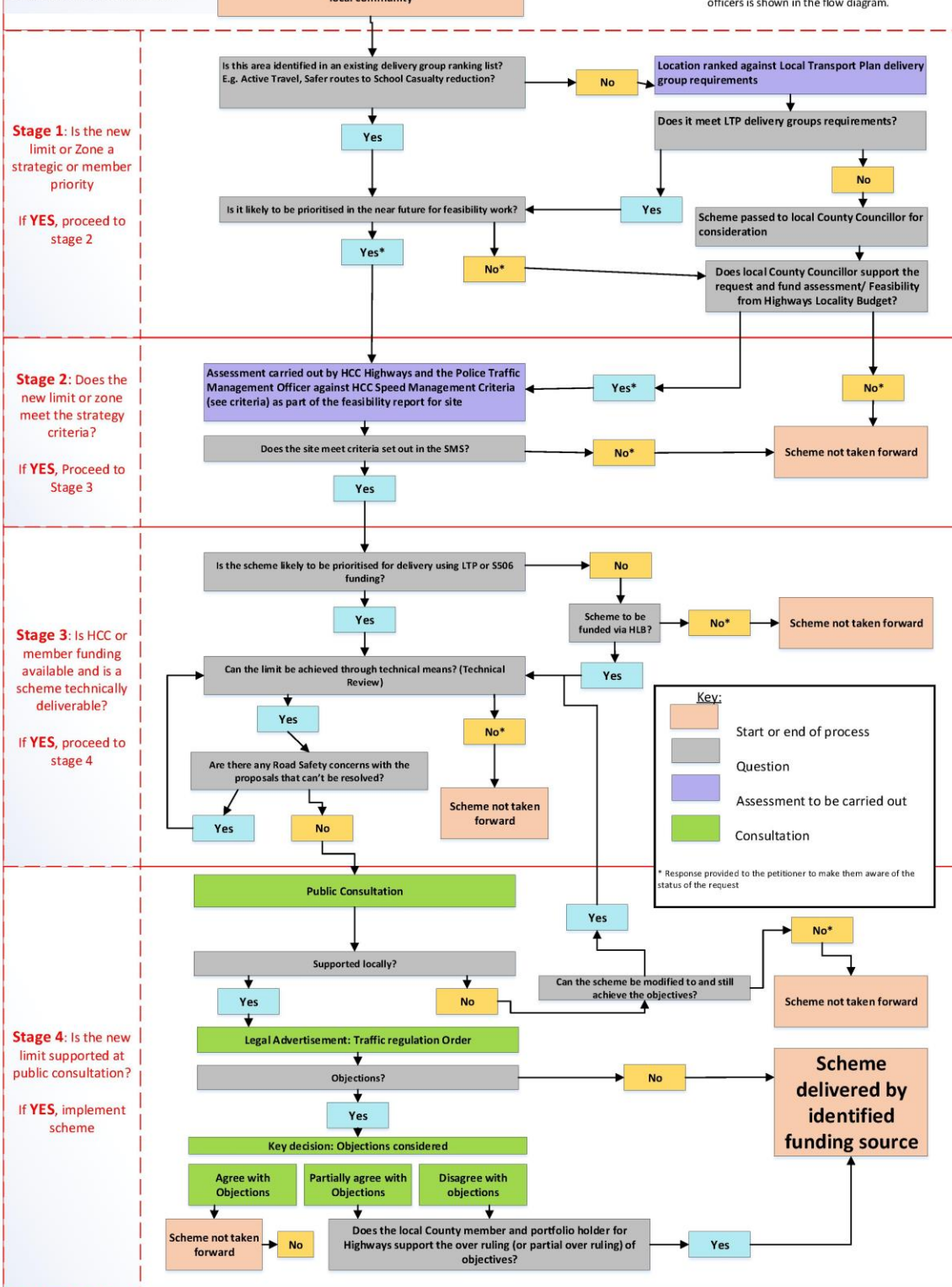
- Stage 1—Assessment of whether it is a priority
- Stage 2—Check against SMS criteria
- Stage 3—Check against funding availability
- Stage 4—Public consultation (for TRO purposes)

Further details of the steps to be undertaken are given in the flowchart in Figure 16.1.

16.1.2 In order to start this process any officer promoting a change of speed limit will need to complete a Change of Speed Limit Form. (See Appendix H). This ensures that the relevant criteria for Stages 1 and 2 of the process have been considered. If a change of limit is promoted the form will also need to be signed by the promoting officer's manager. This takes into account collision history and composition of road users. The form should be submitted to the Speed Management Group (SMG) for consideration.

Figure 16.1 below outlines the full process

Figure 16.1:
Speed limits and zones
implementation process



16.2 Police support

- 16.2.1 Enforcement of speed limits can only be carried out by the police, therefore it is important that any proposed speed limits should be supported by the police. The SMG provides a forum for the police and HCC to collectively review and decide the appropriateness of a speed limit.

16.3 Traffic regulation orders

- 16.3.1 Changes in speed limit will require a TRO to make it legally enforceable. All TROs have to follow the process of public consultation and then advertisement. Without a TRO the speed limit of a road is 30mph with street lighting or the national speed limit without.

16.4 Local support

- 16.4.1 A public consultation will be required for every change of speed limit to establish the opinion of those affected for each proposal. Section 5.3 identifies in more detail the process that relates to 20mph limits and zones.

Appendix A – Glossary of terms and acronyms

Definitions

20mph Limit: A road or series of roads where mean speed is 24mph or less.

20mph Zone: A series of roads which may include traffic calming measures where mean speeds are 24mph or less.

85th Percentile Speed: The speeds at or below which 85% of all vehicles are observed to travel under free flowing conditions. This is a nationally recognised method of assessing traffic speeds.

Advisory 20mph Limit: A part time 20mph speed limit which does not have a legal order (Traffic Regulation Order). It is therefore not enforceable. To be used outside schools only.

Advertisement (Legal): The process where a Speed Limit order is legally advertised. At this point the scheme can only be reduced or withdrawn.

Consultation: The legal process where opinion is sort and used to influence the scheme outcome. A scheme can be changed at this point.

Free Flowing Traffic: See Appendix D

Features: Repeater signs and repeater roundels and traffic calming measures.

Hazardous Site: A site that meets one of a number of injury collision criteria as set out in the Road Safety Strategy.

Hertfordshire Road Safety Partnership: A partnership of organisations comprising who are responsible for delivering road safety schemes, initiatives and campaigns across the county, and supports national road safety campaigns. The Partnership comprises Hertfordshire County Council (Highways, Trading Standards, Public Health), Herts Fire and Rescue, Hertfordshire Constabulary, Herts Air Ambulance, Highways England and the Office of Police and Crime Commissioner.

Highways Locality Budget: Budget held by the county councillors to facilitate improvements on the highway within their division.

Local Transport Plan: Statutory document which sets out the overall objectives and targets for improving transport in the County. The current version is Local Transport Plan 4.

Mean Speed: The average speed at which all vehicles travel.

Police and Crime Commissioner: Works closely with the Chief Constable to reduce crime, keep communities safe and ensure the criminal justice system works well. The elected PCC has the responsibility to hold the police and the chief constable to account on behalf of the public.

Police and Crime Commissioner Road Safety Fund: A fund that uses the surplus generated from motorists who have committed driving offences and been ordered to pay court costs following prosecution, or who have attended educational diversionary courses (such as a speed awareness course), to address community concerns and fund new and innovative ways of improving road safety and changing behaviour.

Rural: An area not shown on the “Hertfordshire Urban Area” published data set.

Section 106 Funding: Funding obtained from developers when building new housing and other buildings to mitigate the impact that the development has on the transport network.

Settlement: An area shown on the “Government National Statistics Hertfordshire Census Settlements” published data set.

Speed Management Group: A group of HCC and police officers who provide advice to other HCC officers, developers and other bodies on the implementation of the Speed Management Strategy and consider changes to Speed Limits and confirm whether proposed changes are in compliance with the Speed Management Strategy.

Spatial Transport Plan: Key strategic transport document for a growth focused area within the County that identifies schemes in the area that will deliver LTP policies and objectives.

Standard Deviation: The difference between mean speed and 85th percentile speeds as shown below. This is used as method or measure to identify speeding traffic (where there is a large standard deviation).

Speed Limit	Mean speeds	85 th percentile speeds	Standard Deviation
20 mph	24 mph	28 mph	4 mph
30 mph	30 mph	35 mph	5 mph
40 mph	40 mph	46 mph	6 mph
50mph	50 mph	57mph	7 mph
60 mph	60 mph	68mph	8 mph

Table 4.1

STATS 19 Form: The department for transport compiles data on personal injury collisions, resulting casualties, and the vehicles involved. The police fill in this form for each collision occurring on the public highway, and which become known to them within 30 days.

Traffic Calming Measure: Humps in accordance with the Highways (Road Hump) regulations 1999, traffic calming works in accordance with the Highways (traffic calming) regulations 1999, a pedestrian refuge designed to slow traffic, variation in widths of the carriageway for the purpose of slowing traffic constructed after 1999 and a horizontal bend as defined in TRSGD 2016.

For avoidance of doubt a traffic calming measures will alter a vehicles speed significantly if designed correctly. The spacing in TSRGD 2016 are the minimum to suffice the legal signing requirements for setting out a zone. It does not guarantee that vehicle that vehicle speeds will reduce. Traffic calming measures should be designed in accordance with LTN 1/07 and at a spacing intended to achieve the required speed reduction for the type of traffic calming measures chosen.

Traffic Regulation Order: A Traffic Regulation Order (TRO) is a legal order, which allows us the regulation of speed, movement, and parking of vehicles. They are enforced by the police, with parking restrictions enforced by local district councils.

Urban: An area shown on the “Hertfordshire Urban Area” published data set.

Variable 20mph Limit: A 20mph speed limit that is only operational at certain times of the day. Similar to that used on Smart Motorways (with varying limits).

Abbreviations and Acronyms

APCO	Association of Public Safety Communications Officials
AONB	Area of Outstanding Natural Beauty
DfT	Department for Transport
HLB	Highways Locality Budget
HADECS	Highways Agency Digital Enforcement Camera System (a type of speed camera)
KSI	Killed or Seriously Injured
LTP	Local Transport Plan
NMU	Non-motorised user
NPCC	National Police Chiefs Council
OPCC	Office of Police and Crime Commissioner
PCC	Police and Crime Commissioner

RTC	Road Traffic Collision
S106	Funding negotiated from developers to mitigate the impact of the development
SID	Speed Indication Device
SMG	Speed Management Group
SNT	Safer Neighbourhood Team
TAL	Traffic Advisory Leaflet (produced by the DfT)
TM	Traffic Management
TMO	Traffic Management Officer
TRO	Traffic Regulation Order
VAS	Vehicle Activated Sign

Appendix B – Changes between strategies

	Change	Previous Strategy (March 2014)	Current Strategy (April 2020)	Change impact	Comment
1	Limit and Zone Definitions	A limit is a single road with a 20mph speed limit, with or without physical measures. A zone is two or more adjacent roads with a 20mph speed limit, with or without physical measures.	Limits and Zones will revert to Dft Definitions. Allowing limits to be used on multiple roads. In the strategy we will use the term collectively refer to them as 20mph Areas. In practice though we will have a mixture of limits and zones	Previously the standardisation of zones across the county led to more signs being installed than necessary. In a zone signs are required every 100m (if there are no other traffic calming measures). Whereas if limits had been progressed, less signage would have been needed.	This resets the use of limits and zones across the county to the following principals. Where speeds are already low then a 20mph limit can be used. Where speeds need to be lowered with traffic calming then a 20mph zone can be used. Designers will be able to mix and match these principals across town to save signage costs.
2	20mph Area signing	Zones (multiple roads) were signed as required by legislation (Every 100m unless traffic calming features were used). Limits (single roads) were signed by legislation every 200m.	Changes in legislation (TRSGD 2016) means that limit signage spacing is now guidance. To sign zones and limits consistently. A new criteria has been included that whether a limit or a zone there will be a speed limit sign at least every 200m.	When zones are being promoted that are traffic calmed or designed for low speed there will be an increased cost of additional signs every 200m.	This is so that public can easily identify the speed limit of a particular road. This is important when encouraging persons to use active travel modes. Past logic has been around design that if the environment caused vehicle to travel slowly then there wasn't a need to have road sign telling the driver that the speed limit. However research has shown (Atkins et al 2018) that persons are more likely to use active travel modes if they know the speed limit is set at 20mph. Therefore perception is an important new consideration is convincing persons to use active travel modes.
3	Place & Movement Criteria	N/A	The use of the P2/M1 category will be used as a blueprint to identify 20mph Areas within towns.	This will allow town wide 20mph areas to be planned and progressed.	Previously officers had to identify areas then collect data to confirm which led to a piecemeal progression of 20mph zones. Use the P&M criteria to identify 20mph areas will

					demonstrate the commitment of 20mph in residential areas.
4	Speed data collection	Mean speeds will be used as the basis for setting speed limits in 20mph speed limits and zones.	Mean speeds and 85 th %tile speeds will be collected. The difference between the two will be compared to identify if there are speeding issues on any particular road that would need interventions.	Cost neutral.	Previous use of the mean only to set speed limits had missed that low means can mask speeding problems. The difference (standard deviation) indicated the spread of speeds. Ideally a low standard deviation would indicate good correlation with the mean. A high standard deviation would show greater spread of traffic speeds either side of the mean. This would indicate speeding issues.
5	Existing speeds for proposed 20mph zones without physical measures.	The following now applies: -Where at least 90% of the total number of roads in the proposed zone have existing mean speeds 25mph or below. -Where up to 10% of the total number of roads in the proposed zone have existing mean speeds above 25mph, but below 27mph.	This requirement has been removed.	In terms of having speed limits that work, this is a positive step forward. There will be increased construction cost as measures are developed for non-conforming measures.	This criteria had unforeseen effect with designers selecting roads purely on a numerical basis to trigger the 10% rule. In some cases wrong roads were selected which were not suited to 20mph without applying traffic calming. If traffic speeds are above 24mph then proportionate traffic calming is needed to slow traffic. (See Section 9.0)
6	SIDS criteria		New criteria added	N/A	Publicising process for Speed Indicating Devices.
7	The Role of the Speed Management Group	The Officers Speed Management Group will no longer assess speed limit change requests. Promoting officers will now complete the Speed Limit Change Form	SMG is now reformed. And its role is discussion in Section 14.0		N/A

8	5 Core principles	Not covered	5 core principles have been introduced to cover how HCC approaches speed management	N/A	These cover important points about setting speed limits for Hertfordshire
9	Speed limits by design	Not covered	Section 9.0 covers	This will have a positive impact on speed management.	Officers were facing increased requests to change speed limits to bring about a behaviour change. Such as to overcome a visibility problems. In general, this is not effective speed management and the new chapter sets out how to change vehicle speed to support a limit change.

Appendix C – Technical guidance on collection & interpretation of speed data

When analysing traffic speed data. It is important to look at the speeds that occur under free flow conditions, and therefore the 12 hour or 24 hour average mean and 85th percentile speeds may not be appropriate. It may be necessary to exclude peak hour data as congestion may have a significant effect on the results.

The following steps are taken to identify the roads that require a speed survey within a proposed 20mph area:

- The lead engineer visits all the 30mph roads in the proposed areas.
- Following discussions with the Traffic Management Officer at Hertfordshire Constabulary roads are identified where there is a concern that the vehicle speeds are high.
- Speed surveys are undertaken on these roads.
- Speed surveys are also undertaken in a random 25% sample of the remaining roads in the proposed area.

For example, if there were 30 roads in an area and 13 were identified as being of concern an extra 5 roads would be surveyed (25% of the 17 roads where speed wasn't a problem) and a total of 18 surveys would be required.

The use of local knowledge is important when examining the speed data particularly if events have had an effect on the data. When assessing speed limit, free- flow conditions during a typical weekday will be used as a baseline.

Free flow conditions are when vehicles are unlikely to be accelerating or braking. Measurements should not be taken near isolated sharp bends, gradients and road narrowings.

A minimum of one weeks automated data should be collected. The full weeks data should be reviewed to establish whether there is consistency or large differences in speeds that may affect the use of mean speeds.

Queueing traffic can be identified by a large spread of speeds across all measured speeds – say from 5mph up to the mean speed if it occurs at isolated times of day. I.e at morning or evening peaks. Free flow traffic would have a smaller range.

Appendix D – Signage requirements

In general Hertfordshire County Council will erect speed limit repeater signage in accordance with the Table D1 below. Local variations may be necessary due to local obstructions or in locations of historic interest and are to be documented via Departures from Standard and agreed with the Speed Management Group. Where the regulations permit, signs can be substituted by road markings.

Table D1 Size, spacing and minimum clear visibility distances (CVD) for repeater signs

Speed limit and type of road (Notes 1 and 2)	Size of sign (mm)	Maximum distance (m) between			CVD (m)
		Consecutive signs on alternate sides of the carriage-way (Note 3)	Consecutive signs on the same side of the carriage-way	Terminal sign and first repeater	
20 mph zone*	-	100	100	50	-
20 mph	300	200	300	200	20
30 mph with street lighting	-	No repeaters	No repeaters	No repeaters	-
30 mph without street lighting	300	250	400	200	30
40 mph	300	350	500	250	40
50 mph	450	450	700	350	50
60 mph (dual carriageway)	600	500	800	400	60
National speed limit (lit single carriageway)	450	500	800	400	60
National speed limit (lit dual carriageway)	600	600	900	450	70
National speed limit (unlit road)	-	No repeaters	No repeaters	No repeaters	-

*In a 20mph zone any one point of the road must be no more than 50m from a feature as outlined in TSRGD 2016 Schedule 10 General Directions section 1. One feature in the zone must be a traffic calming measure the remainder can be repeater signs at no greater than 100m spacing.

As a Hertfordshire specific policy 20mph zones and limits have been combined into 20mph areas with a requirement for repeaters at least every 200m. This is so that 20mph zone or limits will have the same appearance from a signing point of view.

NOTE 1: street lighting or lit carriageway means “a system of carriageway lighting furnished by lamps lit by electricity placed not more than 183 metres apart. Where a road does not have a system of street lighting throughout and requires repeater signs for both the lit and unlit sections, a repeater sign should be provided at the point where the street lighting commences.

NOTE 2: Sign size, spacing and clear visibility distance for motorways, including link roads, will be the same as shown for 40 mph, 50 mph and 60 mph, as appropriate.

NOTE 3: Repeater signs need not be provided where the length of the speed limit is less than the distance shown in this column.

Appendix E – 20mph areas additional guidance

Hertfordshire County Council is bound by legislative requirements for 20mph Limits and Zones and as such all 20mph Areas will be laid out in accordance with these requirements.

To promote Hertfordshire's active travel principles, we will sign both 20mph Areas (consisting of Limits and Zones) consistently so that all are aware they are within them.

This additional guidance is to be applied by those considering 20 mph areas. Just because a particular area may have one or more of these elements it doesn't automatically mean that it's suitable for a 20mph area. The whole situation should be reviewed including the guidance of experienced practitioners as appropriate.

20mph Area General Guidelines

Potential for active travel

Research undertaken by the Transport Research Laboratory for the Department for Transport shows a strong correlation between speed of travel and risk of fatality, ¹ RoSPA has summarised this in its (Laboratory, 2010)³

Therefore the implementation of 20mph areas is a mechanism for encouraging safe active travel.

In line with LTP4 principles we will support 20mph areas where there is potential for active travel. Evidence has shown that persons are more likely to consider active travel with speed limits are low and as such Hertfordshire County Council will consider funding areas where there are greater chances of active travel. E.g. residential areas surrounding town centres with a high place function in the Place and Movement categorisation (P2/M1, P3/M1).

Pedestrians

Where there is evidence of high pedestrian footfall consideration should be given to a lower speed limit to reduce conflict between pedestrians and motor vehicles. This is particularly relevant where pedestrians are close to the road particularly where a footway is very narrow. For example, in historic areas which were not designed for motor traffic.

Buildings

Where buildings are close to the carriageway it creates an effect of visual narrowness which can slow vehicle speeds. The opposite effect occurs where buildings are set back such as when gardens are provided at the front. This phenomenon is discussed in Manual for Streets. The density of buildings also has an effect as high-density housing can generate higher footfall. This can also be thought about in respect to towns versus rural settlements. But in these occasions the Place and Movement assessment should be used as an indicator over whether the road is considered residential or not.

There are certain buildings by their nature that require special consideration and these are described in the paragraphs below.

Schools

Schools by their nature and the vulnerability of their users require traffic to be travelling at slower speeds and as such a specific requirement is contained within the strategy for lower speed limits.

Community facilities

The presence of facilities such as community centres, churches or shopping parades. These can be areas which generate higher footfall.

Active Frontage

When buildings and footfall are combined the term active frontage is used. This means that motor traffic can be potentially slowed by interactions with adjacent uses. For example, a parade of shops where vehicles and pedestrians will be calling at could be considered an active frontage.

Environment

The environment or setting of a road can be enough to warrant a 20mph area but to evaluate this the road will need to be examined by any experienced practitioner. For the environment to contribute to slower speeds there is a combination of factors that need to be considered such as width of carriageway, vegetation, available forward visibility and the presence of on street parking.

Motor vehicle Speed

In section 4 the range of speeds that are required in a 20mph area are set out. The resultant speed is a prime criteria in the consideration of a 20mph area. And while most things are possible in terms of engineering a solution there comes a point where cost outweighs the overall benefit therefore the following is a broad guide to the speeds and the type of 20mph area that will be needed.

If mean speeds are 25mph or less than the existing environment is already suitable for a 20mph area and therefore only speed limit signs are required

If mean speeds are 30mph or less than the existing environment is likely to be suitable for a 20mph area with traffic calming.

Where 85th percentile speeds exceed 36mph the existing environment is unlikely to be suitable for a 20mph area as traffic calming is required to bring the vehicle speeds to that needed for a 30mph limit. If untreated then consideration should be given to raising the limit to 40mph

20mph area additional considerations

The following are additional considerations for 20mph areas but they are not considered criteria as they are factors or symptoms of other problems that could be tackled with different solutions.

Traffic volume

Traffic volume has a significant impact on the speed of traffic if it builds to appoint that congestion is created and in some situations this can lead to requests for lower speed limits due to the severance issues created by high traffic volumes. Severance is caused by the inability for pedestrians to cross a road for example. Officers receiving requests for lower speed limits should check that traffic volume is not playing a part in local community concerns as lowering the speed limit is unlikely to address those concerns. Whereas providing crossing facilities maybe a more appropriate solution depending on the situation experienced.

If traffic volume is the only factor lowering vehicle speeds then outside of times when volume is high then the 20mph area is unlikely to be effective.

Collisions

The presence of collisions is not a reason alone to reduce speed limit. Collisions within a proposed area should be reviewed as these may indicate where the design of the road needs to be changed.

20mph Areas specific technical criteria

20mph Zones



The beginning and end of a zone must be indicated by terminal signing. The zone can be implemented with features and/or traffic calming measures. Traffic Regulation Order (TRO) required to be legally enforceable.

In Hertfordshire we sign 20mph zone and limits consistently. The minimum signing requirement for a 20mph zone is to have repeaters every 200m

TRSGD 2016 requires features at smaller interval than this. Therefore, if the proposed zone is made largely of traffic calming measures then additional signs will be required at no less than 200m.

If the proposed zone is largely based on signing due to the environment being largely self-enforcing then designers should either reconsider the design approach and make use of a 20mph limit which would ultimately require less signs than a 20mph zone.

20mph Limits



Signed with terminal signing at entry and exits and repeater signs at intervals only. Traffic Regulation Order (TRO) required to be legally enforceable.

Advisory Part Time 20mph Limits Outside Schools



An advisory 20mph limit sign can be mounted with the school warning lights and school ahead warning sign. The advisory limit will be active when the lights are flashing during school operating hours. In general, this will be school drop off and pick up times.

Mean speeds must be 30mph or less before implementation. As the limit is advisory it not required to be self-enforcing whereas other 20mph limit and zones are.

An advisory limit is not enforceable by the police and does not require a traffic regulation order.

Variable 20mph Limits

Traffic authorities have powers to introduce speed limits that apply only at certain times of the day.

These are similar in concept to Smart Motorways where variable speed limits apply and are indicated by variable message signing.

Specific signage would need to be authorised by DfT prior to a scheme being implemented.

TRO required to be legally enforceable.

Table E1: 20mph Areas (Differences between Zones and Limits)

20mph Speed Limit	20mph Zone	
Signed by signs only Terminal Signs S10-2-1 (diag 670) (600mm dia plus) at start/end of limit. Repeater signs S10-2-1 (diag 670) (300mm) dia (every 200m)* Repeater signs can be substituted for roundels S10-2-9 (diag 1065) Sign illumination within limits are relaxed (TSRGD 2016) Terminal signs must be lit when with 50m of a Principal Road (A classification Road)	Signed by S10-12-5 (diag 674) on entry and S10-2-6 (diag 675A) on exit. Must have one physical traffic calming measure within the zone. Repeater signs are NOT a physical traffic calming measure. No one part of the zone must be more than 50m from measure as defined by TSRGD 2016. Unless cul de sac 80m or less. Entry signs are not classed as a traffic calming measure so first measure must be at 50m unless entry roundels are used. In practice this allows spacing every 100m. Sign illumination requirements within the zone are relaxed (TSRGD 2016) Road hump lighting requirements are relaxed in 20mph zones at the discretion of HCC Street Lighting. Sign requirements for traffic calming measures, humps, chicanes etc are relaxed and warning signs can be omitted.	National Guidance/Legislation requirements [and Interpretations]
In either a limit or a zone the minimum requirement for a repeater signage shall be no less than 200m spacing.		HCC Policy

20mph Area Public Consultation requirements

All consultation documents will state that a 20mph limit or zone will generally be self-enforcing with little or no police enforcement.

A clear process will be agreed with local members and stakeholders prior to consultation being undertaken setting out the response rate required and the level of mandated support that needs to be demonstrated for a scheme to progress. This would be clearly set out in any consultation material in order to ensure that people are fully informed and that schemes are appropriate and supported locally.

20mph Area monitoring

Before and After Studies:

A before and after study will be completed within one year of the limit or zone being implemented. This will include comparison of vehicle mean speeds.

If maximum mean speed “After” limits do not meet the criteria set out in the Speed Limit Framework, a review of the scheme will be required.

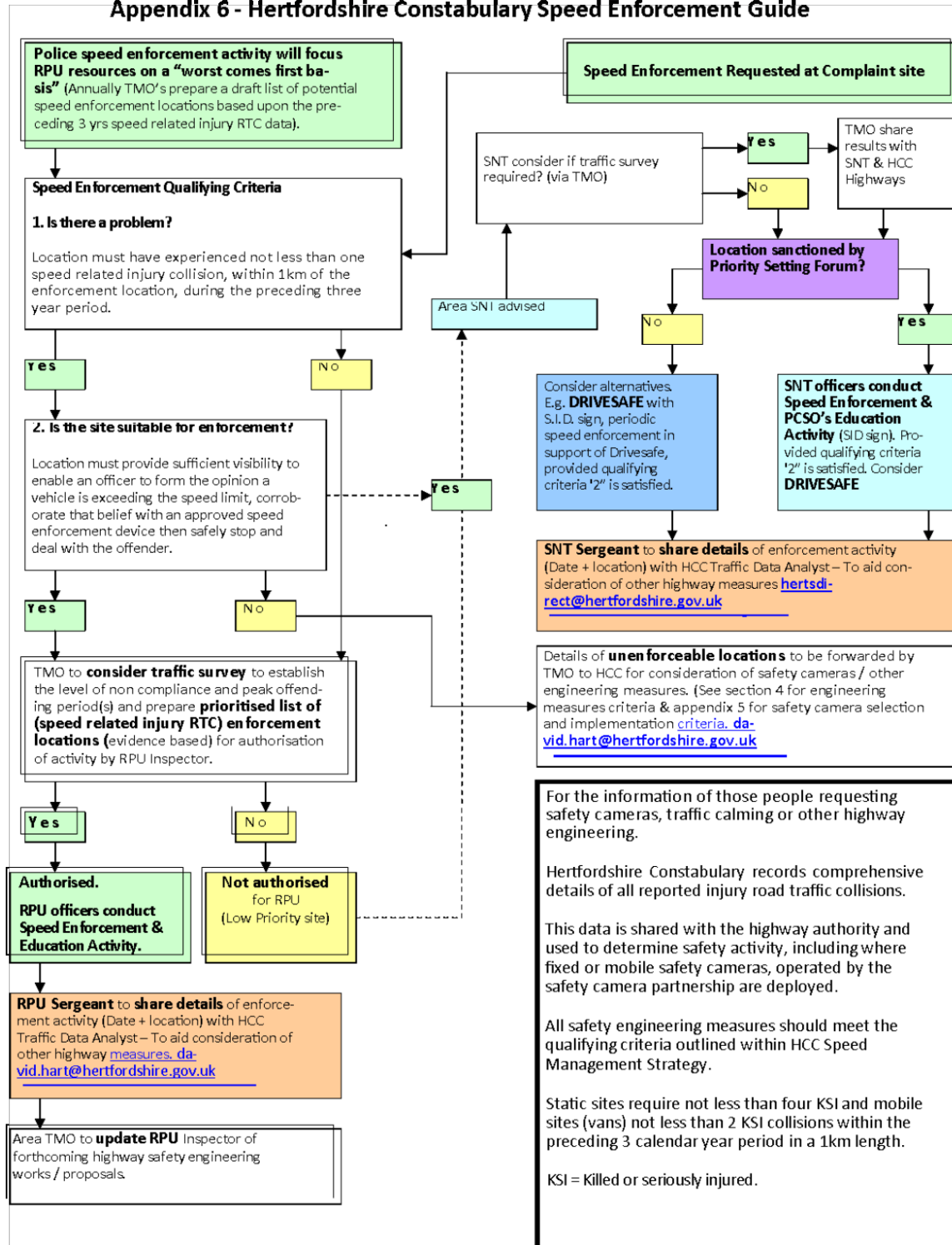
Appendix F – Criteria for safety camera site selection and implementation

Initial qualifying criteria	Fixed speed camera sites	Mobile speed camera sites	Routes (may comprise of a number of Fixed, Mobile or an Average Speed solution)	Red-light or combined red-light speed
Site length requirement	Between 0.4km and 1.5km	Between 0.4km and 1.5km	Between 1.5km and 10km	From stop line to stop line in direction of travel.
Number of killed and serious injury collisions (KSI)	At least 4 KSI collisions per km in the baseline period.*	At least 2 KSI collisions per km in the baseline period.*	At least 3 KSI collisions per km (average) in the baseline period.* OR A minimum of 3 existing core sites within the length.	At least 1 KSI collision within the junction in the baseline period.* Selection must be based upon a collision history of red-light running.
Speeds at proposed sites	Speed survey shows free-flow 85 th percentile speed is at or above NPCC (National Chief Police Council) enforcement threshold.			Not applicable for red light running only enforcement.
* The baseline period is the most recent three calendar years available at the time of review.				

For sites that have successfully met the criteria above, then the following steps will be undertaken				
Rule	Fixed speed camera sites	Mobile speed camera sites	Routes	Red-light or combined red-light speed
Suitability of site for camera enforcement	- Does the collision analysis indicate that camera enforcement would address the collision history at the location?. - There is no other cost-effective engineering solution that is more appropriate to resolve the collision types identified as part of the collision analysis. - The highway authority must undertake a site survey, demonstrating the following: - That camera enforcement is the right solution. - That the Traffic Regulation Order (where applicable) and signing are lawful and correct. - That where new signage is required this can be installed safely and in compliance with relevant guidance documents. - That the site conditions outlined below are achievable			
Site conditions that are suitable for the type of enforcement equipment	Access to the camera housing is safe for operational purposes.	Location for mobile enforcement is easily and safely accessible. That there is space for enforcement to take place in a visible, legal and safe manner.	Access to the camera housing is safe for operational purposes. For average systems approval in principle is required for; the structure over the highway; the proposed vehicle restraint system (where required)	Access to the camera housing is safe for operational purposes.

Appendix G – Hertfordshire Constabulary speed enforcement guide

Appendix 6 - Hertfordshire Constabulary Speed Enforcement Guide



Inclusion within a speed enforcement list does not guarantee enforcement activity, and is reliant on the resources available.

To arrange direct / pro - active support from HCC Road Safety Team in road side enforcement & education activity call 01992 556800.

Appendix H – Speed limit form

Speed Limit Form

PART A					
[Part A to be completed BEFORE Consultation/Engagement takes place]					
PROPOSING OFFICER'S CONTACT DETAILS					
Name		Tel No		Location	
SOURCE OF REQUEST					
Background and source of request (I.e. which UTP, Public or Member Request)					
REASONING					
Why is a change required?					
SITE DETAILS					
Road Number \ Name					
From		To		Length*	
*Limits of less than 600m will not normally be acceptable. (DfT Circular 01/13)					
Town		Borough/District			
Police speed enforcement site (Y/N)					
Road traffic collision History	Attach record and/or summarise below				
SITE PLAN					
Overview plan showing extents of speed limit, locations of speed surveys, etc.					
Reference number(s)					
Attach photograph(s) of proposed terminal sign positions					

Speed Limit Form

SITE DATA			
Current speed limit		mph	
Current measured speeds (in free flow conditions)			
Mean	85 th	Difference	
Is data continued in a table Y/N		Reference	
Do measured speeds match the Speed Limit Framework^? Y/N			Q.A
^I.e. is the mean 24mph or less [20mph] or at or below the posted/proposed speed limit [30mph+limits]			
Is the difference between Mean and 85 th percentile speeds within parameters (see section xy SMS) (Y/N)			Q.B

SPEED REDUCING MEASURES
If answer to Q.A and/or Q.B is “No” what measures are you planning to install or what has changed about the environment to bring about a change in driver behaviour*. Describe below or provide drawing references to show details
*(If answer is none or you are installing signs only) then a revised speed limit is unlikely to be acceptable.

SPEED MANAGEMENT GROUP COMMENTS		
AGREED IN PRINCIPAL	REJECTED	DATE
COMMENTS/REASONING		

Speed Limit Form

PART B		
[To be completed AFTER Consultation but before Advertisement of TRO]		
STAKEHOLDERS COMMENTS	Name	Their comments
Police		
Fire and Rescue;		
Ambulance		
Member		
Highways Locality Manager		
Passenger Transport section		
District \ Borough Council officer		
District Councillor		
Parish Council		
Other		
Other		
Other		

CHANGES SINCE PART A WAS REVIEWED	
Describe changes incorporated since stakeholder consultation	
Are the public in support of the speed limit change? Y/N	
If No describe your next steps to overcome this problem. i.e. scheme amendments or other	

Speed Limit Form

PROPOSER SIGN OFF		
I hereby confirm that the proposals have been checked verified by a suitably experienced WCS Designer/Officer. I acknowledge that errors in the application will result in the application being rejected and may not be considered until the next Speed Management Group meeting (Held quarterly)		
Designer/Officer		
Name	Signature	Date

SPEED MANAGEMENT GROUP COMMENTS		
AGREED	NOT AGREED	MEETING DATE
COMMENTS/REASONING		
Note Speed limit orders will not be processed by the TRO team without SMG agreement that the speed limit change is in accordance with the Speed Management Strategy		

DRAWING LIST/ATTACHMENTS

Appendix I – Frequently asked questions

Setting Local Speed Limits

Q1 What are 85th percentile and mean speeds?

85th percentile speeds are the speeds at or below 85% of all vehicles are observed to travel under free flowing conditions. This is a nationally recognised method of assessing traffic speeds.

Mean speeds are the average speeds that all vehicles travel at.

Q2 What is the difference between a 20mph limit and zone?

National legislation allows 20mph limits to be generally used where the existing environment encourages and therefore enforces through its nature slow speed. It will be defined by traffic signs showing the speed limit.

A 20mph zone is where the existing environment has been engineered or changed to bring about a slow speed environment. This means that as well as traffic signs showing the speed limit the area may have engineering measures e.g. humps that slow traffic down.

In Hertfordshire these have been combined into 20mph Areas with consistent signing requirements. The technical differences are explained in Appendix E Table E1

Q3 Can we have a 20mph limit or zone outside a school?

Possibly

As with considering any type of traffic calming measure, consideration first of all has to be given to whether the environment is appropriate for a 20mph limit or zone and whether existing speeds are less than 30mph.

Full details in relation to the Department for Transport Circular 1/2013 “Setting Local Speed Limits” can be found online at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/63975/circular-01-2013.pdf

Secondly, an appropriate funding source needs to be identified - either through the Local Transport Plan, S106 funding or other funding.

The main funding source for schemes outside or near schools is through the Mode Share to School target in the county council’s Local Transport Plan. Any scheme which is funded in this manner must show that it could encourage more children to walk and cycle to school. One of the key criteria for being considered for this funding is that the school has written and is implementing a School Travel Plan.

For other funding sources see Section 15

The county council need to consider what the most effective measure(s) will be. A 20mph limit, zone, advisory limit or variable limit may be considered along with other measures.

Q4 Can I make my whole village/town 20mph?

Possibly. It would depend on the existing speeds on the area you are considering and the availability of funding to do so. The specifics of the area would need to be looked at using experts within the Highway Service and following the criteria set out in Section 5 and Appendix E.

Q5 But other areas such as Portsmouth have done it.

Yes, talking in generalities is difficult as no two situations are the same and we could create a false expectation that some is possible when it's not. But to help consider the process further here is a more detailed answer for how you could in Hertfordshire.

The Place & Movement criteria (P2/M1) (discussed in Section 4.3 and 5.2) is a good starting point to identify areas suitable for a 20mph area. From this point the normal processes to create a 20mph limit or zone would need to be applied. The P&M criteria is new for Hertfordshire and provides a better way of identifying things that match our active travel principle. As a starting point officers have identified that one category (P2/M1 equating to residential streets) matches aspirations for 20mph areas. Other categories with a high place function may also be suitable but will need further investigation.

If all the roads in that category already have a low speed then providing the costs are met then yes a 20mph area could be applied. Speed limits are subject to legal processes and therefore we can't say a definite yes until it has been through public consultation.

If there are roads in your area where traffic is travelling too fast then there are a couple of ways of dealing with this

- Treat the roads so traffic goes slower (See section 9 for ideas)
- Leave the speed limits on those roads at 30mph.

In all occasions it is best to look at your proposals over a plan and look at the specifics of the problem. Delivering large 20mph areas is complex and needs careful consideration for them to work.

Q6 This seems a long process. Couldn't you just change it all overnight?

We know from experience that in Hertfordshire where the wrong limits are applied to a road they are generally ignored. We want 20mph areas to work and therefore we want to follow a considered approach and the principles of Speed limits by design.

Engineering Measures

Q7 Can we have a vehicle activated sign?

Before vehicle activated signs are considered the Highways department must assess if the issue can be solved using traditional fixed signing.

Recorded speeds also need to be checked and must exceed the NPCC prosecution threshold speed (e.g. 35mph in a 30mph limit, 46mph in a 40mph limit).

There also need to be at least three recorded personal injury collisions that are relevant to the locations, with at least one being speed related.

Q8 Does a serious collision need to occur before action will be taken by authorities?

Although we would like to address sites where it is perceived collisions may occur, funding limitations dictate that our resources must be focused upon sites where collision resulting in injury are already occurring. However, there are other funding sources which are available to address community led concerns (e.g. the Police and Crime Commissioner Road Safety Fund)

Q9 Why does the speed limit change so many times over the length of some roads?

There are locations where relatively short speed limits have been introduced called buffer zones. These are used to bring vehicle speeds down gradually and provide better compliance within the lower speed limit. Most limits will be a minimum of 600m in length, or 400m in exceptional circumstances.

Speed Enforcement

Q10 Please can we have more speed enforcement?

Due to limited resources, the police prioritise speed enforcement activity at locations with a history of speed related collisions.

Additional speed enforcement requests can be considered for periodic attention by the ward Priority Setting Forum which meets every three months.

Q11 How can I find out about my local Priority Setting Forum?

Details, dates and locations of these panels can be ascertained by telephoning 101 or contacting the relevant Safer Neighbourhood Team. Details can be found at:

<https://www.police.uk/pu/your-area/hertfordshire-constabulary>

Q12 Who carries out speed enforcement?

The police are responsible for the enforcement of speed limits.

The county council as the Highway Authority is responsible for the management of speed on all public roads in Hertfordshire (except trunk roads and motorways which are managed by Highways England)

Q13 How do I contact my local Safer Neighbourhood Team?

Contact details can be found on Hertfordshire Constabulary's website at this location -

<https://www.police.uk/pu/your-area/hertfordshire-constabulary>

Q14 How can I access Community DriveSafe?

For further information about the Community DriveSafe scheme please visit the following web page <https://www.hertscommissioner.org/community-drivesafe-scheme-hertfordshire>.

Safety Cameras

Q15 Can we have a safety camera?

The county council considers any location for a safety camera against the 'Criteria for Safety Camera Site Selection and Implementation' matrix. (Appendix F)

Q16 Can we have a safety camera if we pay for it?

No, it is essential that the provision of every camera site can be justified by a logical and democratically supported process which is through the 'Criteria for Safety Camera Site Selection and Implementation' matrix (Appendix F). It should be noted that there are ongoing maintenance costs beyond the initial cost of providing and installing a camera.

Education, Training and Publicity

Q17 How can I find out more about:

- **Speed awareness courses**
- **The driver improvement course**
- **Advanced driving courses**
- **Motorcycling courses**

Go online at https:

[//www.hertfordshire.gov.uk/services/highways-roads-and-pavements/speed-awareness-and-driver-training/speed-awareness-and-driver-training.aspx](https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/speed-awareness-and-driver-training/speed-awareness-and-driver-training.aspx)

Hertfordshire - County of Opportunity

Our services include:

- Care for older people
- Libraries
- Support for schools, pupils and parents
- Fire and Rescue
- Fostering and adoption
- Support for people with disabilities
- Admission to schools
- Road maintenance and safety
- Protection for adults and children at risk
- Trading standards and consumer protection
- Household waste and recycling centres
- Support for carers

To find out about your local county council, visit:

www.hertfordshire.gov.uk

[www.twitter.com/hertscc](https://twitter.com/hertscc)

www.facebook.com/hertscountycouncil

To find out who your county councillor is and how to contact them, visit:

<https://democracy.hertfordshire.gov.uk/mgMemberIndex.aspx?bcr=1>

You can access the internet for free at any Hertfordshire library.