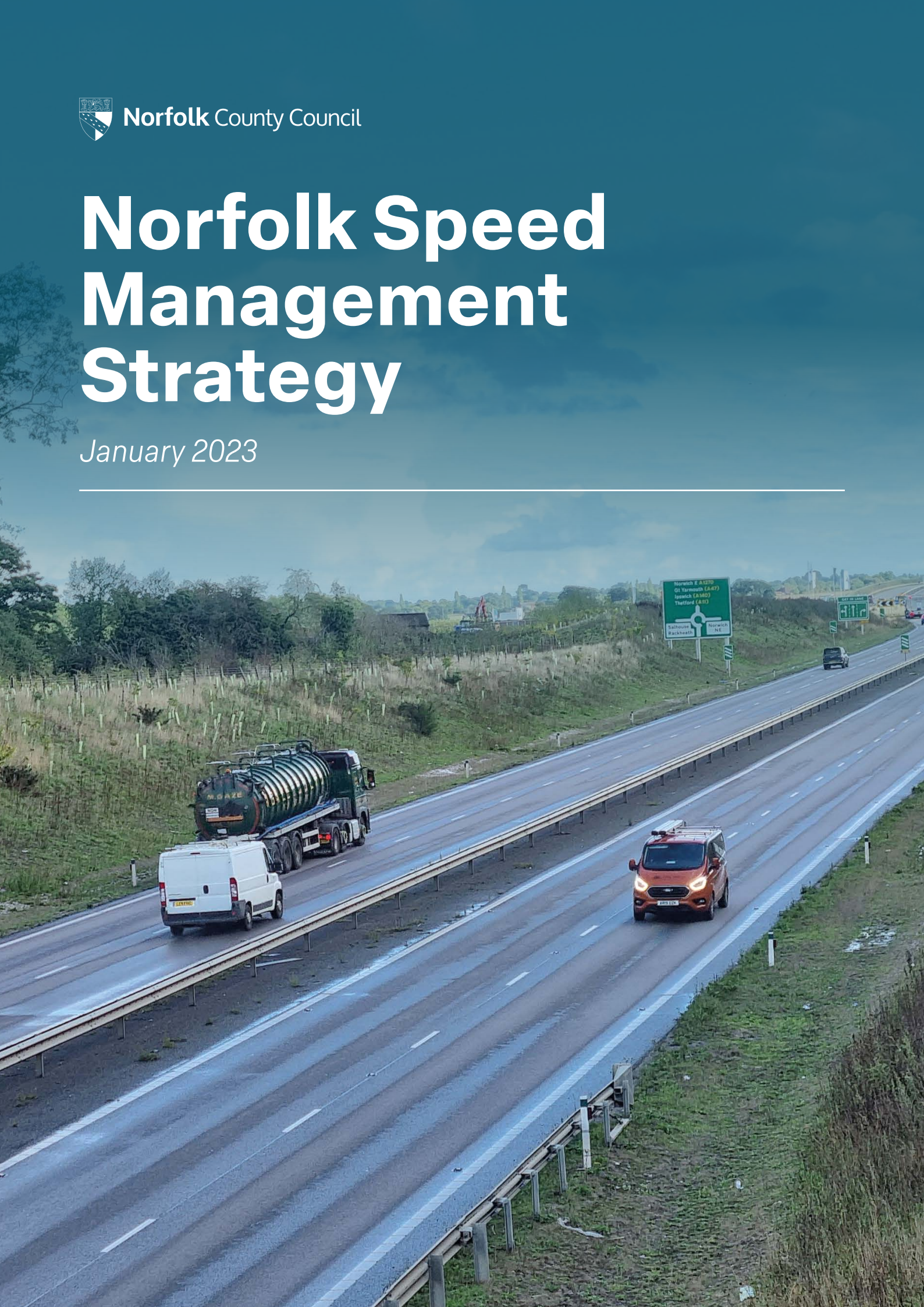
Norfolk County Council

Norfolk Speed Management Strategy

January 2023



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1. Foreword

The previous version of Norfolk's Speed Management Strategy was written in 2014. Since then, there have been a number of new publications by the Department for Transport (DfT), also some of the ways we approach safety matters have altered or have been enhanced. A desire shared by both Central Government and the County Council has seen a marked increase in local, community-based involvement, resulting in the expansion or introduction of several initiatives. Therefore, a review was necessary to capture these changes.

The County Council has a successful track record in partnership with other agencies of reducing the severity and number of people hurt on roads in Norfolk, and in supporting and responding to communities that are worried about road safety. Whilst the County Council is fully focused on delivering a consistent safe approach to speed management across the county, many communities are concerned about the effects of speeding traffic on their safety and quality of life, especially for the more vulnerable groups including school children and older people. In terms of school children, current DfT advice is to consider the introduction of more 20 mph speed limits and zones. Elected members have agreed we should aspire to part-time 20 mph speed limits outside each school in Norfolk, although that aspiration is very dependent on the levels of funding available from Government and is achievable at the time. A new and recent trial called Norfolk School Streets, aimed at improving safety around schools and promoting active travel over car use, is currently underway at a small number of sites and is being monitored and assessed. The trial involves road closures during pick-up and drop off times, with certain roads being closed to vehicles to allow children to travel safely to and from their school using sustainable modes of transport including walking, cycling and scooter riding.

To further help address local safety concerns, the County Council has introduced the very popular and extremely successful **Parish Partnership Initiative** which allows local communities across the County to decide upon their own highway related priorities and schemes, many of which relate to improved road safety and speed management. Schemes are jointly funded between the Parish/Town Councils and the County Council.

Further to our aim of making Norfolk's roads safer, we have recently committed an additional £1m in funding which will be spent across the County over the next 4 years (April 2022 – March 2026) to address even more of these local community safety concerns. This is called the **Road Safety Community Fund** and is a new and additional funding stream specifically designed to address local road safety concerns.

I believe that this amended version of the **Norfolk Speed Management Strategy** retains the right degree of flexibility which allows us to look at the best local solutions to speed related issues and get the best out of our resources and those of our key partners. I am grateful to Norfolk Constabulary for their assistance with the continued development of the strategy.

Graham Plant
Cabinet Member
for Highways Infrastructure and Transport

January 2023

2. Speed Management - *Considerations*

Introduction

Acting as the local Highway Authority, Norfolk County Council is responsible for setting speed limits on local roads. The Norfolk road network needs to support a local transport system that is safe for all road users, promotes economic growth and improves the quality of life in our communities.

Underpinning this support is the County Council's approach towards the key considerations of speed management, which are covered in this Norfolk Speed Management Strategy, and are:

- **Road Safety**
- **Economic Considerations**
- **The Environment**
- **Links to other strategies**
- **Policy**

Road Safety

The relationship between speed and road casualties is complex, but there is overwhelming evidence that lower speeds result in fewer collisions and less severe injuries. Speed management has undoubtedly contributed to a considerable reduction of road collisions within Norfolk. The agreement to remove specific road safety targets was made by government in 2011 and it was replaced with the **Safe System Framework Approach** (adopted by the DfT). This is an internationally recognised approach to reducing killed or seriously injured road users (KSI) numbers.

The County Council and partner organisations have agreed to adopt the Safe System Framework Approach, explained in greater detail within this strategy document. It is our ambition to implement a step change in how we address road safety, acknowledging that humans make mistakes and that the road system should be designed, built and used in a way which protects lives.

The County Council continues to retain a strong focus on casualty reduction, demonstrated in our Highways, Transport and Waste Service Plan on a Page (2022), and one of its key performance indicators states a reduction in number of killed or seriously injured (KSI) on Norfolk's roads. The aims include the reduction of the number and severity of road traffic casualties on roads in Norfolk.

Increased public confidence that journeys by foot, bicycles, e-scooters, public transport, cars and lorries will be safe is key if we are to have a vibrant and expanding economy together with a county where our residents and visitors feel safe to explore the highway network.

The current guidelines from the Department for Transport (DfT) on **Setting Local Speed Limits (Circular 01/2013)** reinforces our own approach, with an emphasis given to consideration of the full range of options to enhance the environment and quality of life. Speed limits form one distinct element of speed management. They should be considered alongside other speed management measures including engineering, enforcement and education. Roads in residential areas and urban centres need to be designed for all road users and raise driver awareness of their environment.

Traffic speed interacts strongly with the local environment and the public perception of road safety. With the correct environment, sustainable forms of transport such as walking and cycling are encouraged. To promote these activities, in 2020 and 2021 the DfT published its **Gear Change** documents - raising awareness of how increasing cycling and walking can help tackle some of the most challenging issues we face as a society – improving air quality, combatting climate change, improving health and wellbeing, addressing inequalities and tackling congestion on our roads.

Economic Considerations

Efficient transport systems are essential to the economy and vibrancy of Norfolk. Road traffic is essential to move people and goods for business, pleasure and work. The economic health of the county relies on the reliability and effectiveness of the road network, and correct speed management helps to address this. Traffic collisions and injuries are expensive to the county, not only in monetary terms, but in human suffering and social impacts. At present when resources for road improvements are limited, the value of proposed improvements must be assessed. However, many of the benefits of speed management such as environmental, community and quality of life impact do not have monetary values, but still need to be considered. Effective speed management is part of creating a safe road environment and helps ensure the road is suited to the functions it supports. Evidence suggests that when traffic is travelling at constant speeds, even at a lower level, it may result in shorter and more reliable overall journey times, and that journey time savings from higher speed are often overestimated.

The Environment

Effective speed management can enhance an area. Residential areas can be more accessible to the vulnerable road user and more suited to walking and cycling. Town centres can thrive with speed managed to reduce the priority of motorised vehicles and help pedestrians feel comfortable and safer.

To improve the safety for the most vulnerable road users, recent changes were made to The Highway Code (July 2022).

The aims of the changes are:

- To introduce a hierarchy of road users to ensure those who can do the greatest harm have the greatest responsibility to reduce the danger or threat they may pose to others
- To clarify existing rules on pedestrian priority on pavements and that drivers and riders should give way to pedestrians crossing or waiting to cross the road
- To establish guidance on safe passing distances and speeds when overtaking cyclists or horse riders, and ensuring they have priority at junctions when travelling straight ahead

The emissions of both carbon dioxide and nitrogen oxide increase with the speed of traffic along with noise and vibration. At lower speeds, drivers are less likely to vigorously accelerate and if vehicles are more constant in their speed, pollutants such as particulates are lowered. One of the key goals of NCC's Environmental Policy is 'clean air for the population'. Therefore it is vital locally, nationally and globally we do all we can to reduce vehicle emissions which are polluting our environment.

3. The Norfolk Speed Management Strategy

This strategy has been developed taking the following County Council policies and strategies, as well as guidance from the DfT and national legislation into consideration:

- **The Local Transport Plan (LTP4, adopted July 2022)**
- **Transport Asset Management Plan (TAMP)**
- **Setting Local Speed Limits (DfT Circular 01/2013)**
- **Operational Network Management Plan (ONMP)**
- **The Highway Corridor – Environmental Best Practice guide**
- **Manual for Streets (DfT, Dept for Levelling Up, Housing & Communities)**
- **Transport Decarbonisation Plan (DfT)**
- **Highways Act 1980**
- **Road Traffic Regulation Act 1984**
- **Traffic Signs Regulations and General Directions 2016**
- **Together for Norfolk**
- **NCC Environmental Policy (November 2019)**
- **Highway Code (July 2022)**
- **Gear Change (July 2020)**

The strategy has been updated to take account of the latest guidance, customs and practices, as well as changes in technology and society over the period since the last review in 2014.

This strategy supports an on-going delivery of actions by a range of stakeholders, based on a shared approach to the provision of:

- **Speed limits – see Setting Local Speed Limits**
- **Measures to reduce speed – see Speed Management Measures**
- **Education and publicity**
- **Speed Enforcement**

This strategy offers a framework for the setting of local speed limits and deciding how and under what circumstances action should be taken to adjust speed limits. Some aspects of roads policy which are of particular relevance to the setting of local speed limits include:

- **Road Types – rural/urban, built-up/non-built-up**
- **Route Hierarchy – A roads, B roads, C and U roads**
- **Function (uses) – Movement, Access and Place, or mixed uses**
- **Standard – improved/unimproved**
- **Environment – schools, shops, vulnerable road users, etc**
- **Collision and Casualty History – numbers, rates and densities of KSI casualties**
- **Driver compliance – existing mean and 85th percentile speeds**

In association with the Police, the County Council remains committed to keeping speed management and speed limits under review in order to:

- **Maintain good levels of understanding, acceptance and driver compliance with speed restrictions in Norfolk**
- **Develop route management strategies which meet the needs of road users, and improve quality of life for local communities**
- **Encourage self-compliance, with speed limits seen by drivers as the maximum rather than a target speed**
- **Improve road safety**

Over time, there is also an aim to provide a consistent message between the speed limit and what the road looks like, with regards to its function, geometry and environment.

4. Setting local speed limits

Parish & Town Councils

Norfolk is made up of over 500 Parishes with many numerous villages, most of which have existing speed limits. Vehicle speeds affect quality of life as well as affecting the environment. Working closely with Parishes, Town, District and Borough Councils, coupled with making the most of both existing and emerging available funding streams, the County Council will investigate Local Stakeholder concerns, encourage communities to decide upon their priorities and then work closely together to assess, devise and deliver the most suitable speed related safety projects.

During the past 30 years the majority of Parishes have had at least one speed limit assessment and there have been a large range of speed limit changes, new speed limit restrictions and extensions.

Members of the public raising concerns regarding speed related matters should in the first instance be directed to their local Parish or Town Council to establish whether they agree with the concerns raised and have similar requests reported. It is also beneficial to understand whether this may only be the view of one individual's concerns over what is perceived to be an ineffective speed limit, which will in most cases not be addressed by requesting a lower one. Setting speed limits artificially low will likely have unintended consequences, particularly poor driver compliance with speed limits which could result in further safety issues. In some cases alternative designs/interventions have been proven to achieve better outcomes rather than simply changing the speed limit.

Any proposal to alter an existing speed limit is a collaborative approach and the local Parish/Town Council should act as the initial lead as they represent their community. They need to consider the views expressed and make a judgement as to whether the matter is worthy of their support before making a request to the County Council should it relate to altering an existing speed limit, or to Norfolk Constabulary if it relates to driver compliance, as this is a matter of enforcement.

Traffic Regulation Order (TRO) Process

All requests for speed limit changes are assessed in line with our Council's and DfT guidance. All agreed changes, however small, still require a TRO making process to enable the Order to be enforceable. This requires us, as it does all Highway Authorities, to follow a complex legal procedure defined in statute law which takes around 12-18 months to complete, or longer in more complex cases. This process Involves initial designs, pre-consultations, drafting of legal notices, full consultation in the press (to

residents, businesses, emergency services and public transport operators), site notices, further discussions with objectors, full and final design, accompanying health & safety paperwork, sealing of the TRO, ordering and completion of work.

The primary factors to consider before changes are recommended are the following:

- Does the request meet the criteria as described in this Speed Management Strategy?
- Is it linked to clear evidence of personal injury collision data, tangible road safety issues or hazards which may be improved by speed limit reductions?
- Will it result in good driver compliance?
- Are new development works changing the highway related nature of a locality?
- Locations exhibiting the highest priority will be those where there is a proven, speed related casualty record. If so, these may be considered for further development by our Network Safety Team who continually monitor the records of those sites through personal injury collision records received from the Police.

The framework for determining local speed limits in Norfolk is set out below. This approach has been used to establish our speed limits, depending on the road purpose and environment, in accordance with the **Norfolk Speed Management Strategy**. All signing on the highway must comply with the Highway Code (July 2022) and the **Traffic Signs Regulations and General Directions (TSRGD) 2016** but the dimensions and frequency of signs should be designed to suit the location.

Principal Roads and Main Distributor Routes

These are typically the A and B roads in Norfolk which carry traffic between the larger settlements* or are major urban network links for short to medium distance traffic. Some C roads are also included in these categories as described in the **Transport Asset Management Plan (TAMP)**.

*Settlement
County Council definition:
A density of permanent dwellings where people live, socialise and/or work. In rural areas these can be clustered, semi-clustered or fragmented, hamleted, dispersed or isolated.

Not passing through settlements

Motorists on routes that link between larger settlements will expect to be able to make progress at reasonable speeds within the national speed limits. Restrictions on speed should therefore be considered carefully, with the economic and environmental effects taken into account. In some circumstances a reduction from the national limit would be appropriate such as where the collision rate is above the average for the type of road and specific measures to address the problems cannot be identified. Such limits should be set at a level appropriate to the geometric standard of the road and so that the need for it is self-evident to motorists, or signing is used indicating that it is for collision reduction purposes.

Passing through settlements

The risk of collision increases within settlements and the selected speed limit should be appropriate to the potential dangers. Therefore, it is crucial to monitor the collision rate and/or severity pattern to flag up if it is higher than anticipated. This function is monitored by the Council's Network Safety Team. The standard and layout of the road network, its local environment and the types of highway user play a big factor in the expected rates and severity. Likely areas of concern within settlements will include junctions, clusters of private accesses, local facilities (the presence of shops, post office, schools, public houses, etc.), pedestrian activity (crossing the road, walking on footways, walking on the carriageway). In general, as the size of the settlement increases, so too does the number of potential hazards.

The need for a lower speed limit is consequently self-evident and reducing speed accordingly is accepted by motorists. Moving traffic, particular at higher speeds, gives rise to severance and affects the quality of life in communities. A balance must be struck between the needs of the community and the needs of drivers (general public – residents & visitors, commercial & non-profit businesses, public transport etc), particularly where these roads are the main traffic routes in the County. In order not to confuse motorists with too many speed limit changes over a short distance it is suggested that they should be of at least 800m in length.

Exceptions to this would be:

- when used as a 'buffer zone' to gradually slow traffic entering a built-up area where reductions to 400m would be used.
- where the settlement is less than 800m in length provided the 'exit' speed limit terminal signs are not visible at the 'entry' point of the lower speed limit.

Suggested criteria for speed limits on Principal and Main Distributor Roads

In deciding upon a speed limit, the issues to be considered should include the following:

60 mph National Speed Limit Roads (de-restricted)

- no facilities - shops, schools etc.
- only limited or isolated frontage development
- individual houses/small group(s) not exceeding 400m overall length
- roads of suitable standard

50 mph Speed Limit

- few facilities - shops, filling station, PH etc.
- almost entirely frontage development exceeding 400m overall length
- few junctions
- limited pedestrian/cycle activity
- limited reasons to cross the road
- roads of suitable standard for 50 mph, particularly forward visibility

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40 mph Speed Limit

- outer/periphery of village/settlement
- has shop(s), PH, filling station etc
- significant development on both sides of the road, but not necessarily continuous, with some development in depth. Overall frontage exceeds 400m in length
- junctions
- some pedestrian/cycle activity throughout the day with possible peaks associated with schools etc.
- some provision for pedestrians/cyclists or acknowledged need and possible warning signs
- lengths of road that more closely fit the conditions for a 50 mph limit but where the standard of road/forward visibility is more appropriate to 40 mph

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30 mph Speed Limit

- village core should be the focus of the 30 mph speed limit
- settlement has a clearly defined centre, for example village green, cluster of shops/post office, PH, village hall etc.
  facilities generating pedestrian/cycle activity - schools, shops, PH , playground areas, etc.
- frontage development exceeding 400m in length

In addition to the above, may also include:

- adjacent building development
- route has junctions and accesses present
- there is pedestrian activity throughout the day with provision of footways and may have crossings

In terms of 30, 40 and 50 mph speed limits, there exists a range of speed restrictions on Norfolk's Highway Network tailored to meet local conditions and providing a good overall level of road safety benefit on the network.

20 mph Speed Limit

- these limits would be appropriate in areas of high concentrations of vulnerable road users, such as in busy shopping areas or some larger village centres or residential areas and heavily used tourist locations.
- the **Manual for Streets** sets out the approach to the use of 20 mph zones which aims at 20 mph limits for Feeder and Access Roads. These design speeds should be an integral part of all new housing estate layouts.
- serious consideration should be given before imposing 20 mph restrictions just to resolve short periods of high activity as this will frustrate motorists being unnecessarily restricted, possibly leading to a greater non-compliance.
- DfT guidance states that 20 mph speed limits should be self-enforcing through the provision of complementary traffic calming measures, such as speed humps, cushions and give-way priority working. Suitable traffic calming measures are an effective tool in reducing speeds however are not appropriate on roads with certain functions, including the primary and main distributor road network. They can cause passenger discomfort on buses and also can generate additional traffic noise to the detriment of the quality of life of nearby residents and businesses. They can also cause gritting/ ploughing issues during snow conditions.

Part-time 20 mph Speed Limits - Outside Schools

It should be noted that it has been an aspiration of Members for some time to introduce 20 mph speed limits outside all schools, which has not been possible to date with the current government funding levels. Therefore, we do not presently have a program to install these outside every school, but we do permit Parish/Town Councils to bid under the **Parish Partnership Initiative** - where the County Council match funds half the cost. Alternatively, local County Councillors can decide to use their highways **Local Member Fund (LMF)** or place a bid under the **Road Safety Community Fund (RSCF)**. The part-time 20 mph restrictions only apply during periods of high activity (eg drop off and pick up times) to avoid motorists being unnecessarily restricted throughout the majority of the day.

School Streets Initiative

One of the latest measures that the County Council is now exploring is the **School Streets Initiative** - a trial of closing roads at school drop off and pick up times utilising school and community volunteers to erect signs and barriers and to enforce the closures. A small number of schools are initially being trialled and monitored to gauge the success of the schemes and suitability for wider roll-out.

HGV Access Routes
Not passing through settlements

While the speed limit on these routes should normally be the national speed limit (60 mph), there may be circumstances where a lower limit would be appropriate, such as where the collision rate is above the average for the type of road and no specific measures to address the problems can be identified, or where special policies apply (e.g. Norfolk Coast Transport Strategy). Where such a lower limit is introduced, the limit should be appropriate to the geometric standard of the road so that the need for it is self-evident to motorists, or signing is used to explain that it is for collision reduction purposes.

Passing through settlements

The issues here are similar to those for settlements on the Principal Roads and Main Distributor Routes network. However, in most cases the traffic flows are much lower, and it is possible to give more priority to protecting local communities. The norm should be that these settlements are covered by a 30 mph limit, and 20 mph only in exceptional circumstances. In addition, vertical deflection measures should be avoided on HGV Access Routes due to concerns about noise and vibration.

The aim of any traffic management system in a Town Centre should be to ensure that pedestrians and cyclists can move about with relative ease and safety and hence facilitate a vibrant Town Centre. In this context a Town Centre refers to streets which contain a predominance of commercial/retail premises with significant numbers of vulnerable road users. Measures must not be detrimental to the visual environment and where possible should make a positive contribution to it. It is suggested that the existing national standard of 30 mph should be the norm with provision of sufficient crossing facilities. 20 mph zones and speed limits may also be considered for implementation in Town Centres. This means that Town Centres containing a Main Distributor or Access Road would be restricted by the 20 mph if one was present.

New Roads in Residential Areas

Current County Council guidance to potential developers (in the **Manual for Streets** guidance) recommends that residential roads (other than residential link roads within large developments) to be designed to enable implementation of a self-enforcing 20 mph zone.

Existing Roads in Residential Areas

- **Spine Roads in Residential Areas**
  These should be restricted to 30 mph, with a 20 mph limit considered outside schools or shopping centres and pedestrian crossings to local facilities, or on routes to schools, to address specific hazards.

- **Cul-de-sacs in Residential Areas**
  The **Manual for Streets** Guide suggests that such roads be designed to 12 mph. However, since no Traffic Order can be drafted to provide such a speed limit, speed limits on these roads should be determined by the local factors such as the road environment and visibility at junctions.

- **Other Roads in Residential Areas**
  While these are included within the blanket 30 mph limit covering residential areas, there are likely to be limited safety benefits arising from the introduction of a 20 mph limit. However, such limits should be promoted as part of an area wide scheme to support the local economy, encourage sustainable local travel, improve the quality of life in our communities and contribute to wider public health outcomes.

5. Action and intervention levels

Introduction

The basis of the Norfolk Speed Management Strategy is to both set appropriate speed limits and achieve a reasonable level of driver compliance with those limits. Each of the two aspects are relevant in deciding what action may be needed.

Potential or proposed changes to speed limits should be based on the following assessments:

1. **What is the function of the highway corridor and the surrounding environment?**
   A balance needs to be struck between 'movement', 'access' and 'place' functions. Where the former predominates, the economic benefits of continued progress at a reasonable speed are priorities and a higher speed limit is likely to be more appropriate. Where ease of access or a sense of place are of greater importance, quality of life and social interaction may benefit from a lower speed limit.

2. **Casualty numbers. Are the collision rate and/or severity pattern higher than expected?**
   Lower standard rural routes and mixed use urban and village streets are typical areas where this may be the case. A lower speed limit or interventions to improve exiting speed limit compliance may be appropriate.

3. **Is a speed limit change the most appropriate intervention to encourage the use of more sustainable methods of transport such as walking and/or cycling?**
   Or would alternative interventions (e.g. crossing points) have a greater impact? Whilst previously this was more focused on heavily populated urban areas and in the vicinity of schools, several significant factors have had a major impact on our mode of transport choices. Firstly, recent extreme weather events around the world caused by global warming mean we must now drastically cut carbon emissions by looking at environmental and more sustainable travel options. Secondly, since the global pandemic (COVID19) and the resulting lockdowns, we have seen an increase in people walking and cycling. We need to plan on the basis that we will be able to encourage people to continue with their new habits of walking and cycling, which bring benefits including reduced carbon and congestion, improved air quality in our urban areas, and better physical and mental health for people participating. Our latest **Local Transport Plan version 4 (LTP4)** puts great emphasis on continued improvements in cycling and walking as one of its clear objectives. The LTP4 also adopts the Government's **Cycling and Walking Policy for England July 2020.**

The aim of all speed limits should be to achieve good compliance. Where speed limits are set too low and are 'out of kilter' with drivers' perceptions of a reasonable limit, then adherence to the signed speed limit is likely to be ignored by many. If unrealistically low speed limits are widespread, this leads to a lack of respect and poor compliance with speed limits in general. However, there will also be locations where drivers' speeds are too high for the prevailing local environment and further intervention is required to achieve good compliance with the existing or a lower speed limit. Therefore, enhancements are needed to encourage motorists to comply with the signed speed limits.

Safe Systems Framework Approach

This approach to speed reduction and traffic management is informed by the **Safe Systems Framework Approach** to road safety, which refers to the four components of the System as:

- **Road Users**
- **Vehicles**
- **Roads and roadsides**
- **Speed Limits**

The key focus of the **Safe Systems Framework Approach** is to reduce death and serious injuries through design that accommodates human mistakes and injury tolerances. The **Safe Systems Framework Approach** addresses the safety of all road users, including those who walk, bike, drive, ride or travel by other modes of transport.

6. Speed management measures

Introduction

When the County Council is made aware of public concerns regarding speeding and where compliance is confirmed as poor following Police speed checks, the first course of action is to look at low-cost engineering and environmental measures to raise driver awareness of the need for a change in the speed limit. When improvements are made, consideration should also be given as to whether to reinforce with targeted action via publicity (and where necessary, enforcement) to achieve improved levels of compliance, reduce collisions and casualties.

The full range of speed management measures should be considered when trying to improve compliance with the speed limit and implemented through the most appropriate funding stream (see **Appendix 1** for examples). Some of the persuasion measures can be delivered by others, including the communities themselves - working under the supervision of the Police or Council staff (e.g. Community Speed Watch, SAM2 speed reactive signs).

The management of speed on the highway falls generally into two types of measures available to the County Council. They are:

1. **Persuasion Measures**
   Techniques which seek to influence the driver's perception indirectly, to bring about a reduction in speed, and

2. **Physical Measures**
   Techniques which directly influence the driver's behaviour, to bring about a reduction in speed

PERSUASION MEASURES

Speed Limits and Speed Limit Warning Signs

Speed limits will be set in accordance with this **Norfolk Speed Management Strategy**, which in turn is driven by the DfT guidance detailed in **Setting Local Speed Limits**. Speed Limits should not be used to attempt to solve the problem of isolated hazards, for example a single road junction or reduced forward visibility such as at a bend, since speed limits are difficult to enforce over short lengths. The full range of speed management measures should always be considered before a new speed limit is introduced. It should also be borne in mind that the County Council environmental policy document **The Highway Corridor** recommends that sign proliferation (including speed limit signs) in rural areas must be minimised to prevent urbanisation in rural areas.

Yellow rectangular backing boards are sometimes used to give added emphasis, or to address road safety concerns. However, they can be environmentally intrusive and should only be used where this measure is proportionate to the road safety needs. Unnecessary use of backing boards can also negate the feature of a sign that makes it stand out and if too many signs have yellow backing boards, the highlighting effect is lost. If there are problems with the visibility of a sign to drivers, the first step is to consider if the sign is in the right place and is the right size. A less intrusive way of increasing visibility might be to use a sign that is one size larger rather than adding a backing board. However research has shown that larger speed limit signs are unlikely to have a lasting impact on drivers.

Where existing speed limits are ignored by motorists there may be some merit in experimenting with temporary reminder signs such as the **'THINK!'** campaign posters which could be erected in Parishes if justified concerns about non-compliance were raised.

Local school involvement and education at an early age is very import in raising speed awareness. We promote where possible a competition to design some additional school poster signs. The winners' designs are manufactured and placed alongside our own mandatory signs. This is always very popular with the primary school pupils, although this requires an external funding source.

Gateway Schemes

Experience of gateway scheme provision across the county has demonstrated that they are seen by local communities as an effective speed reducing measure. They have proven to be a useful aid to reinforce motorists' perception that when entering a village they are moving from a rural environment with little or no buildings into a settlement environment warranting a lower speed limit. The success is evidenced by the number of Parish/Town Council bids made under the well-received **Parish Partnership Initiative**. This funding stream provides Parishes with a means to buy-in to speed management in their village, and an opportunity to further enhance the impact of persuasion effects through the addition of planting etc.

In combination with other speed management measures, gateway schemes provide a useful element in a toolbox of persuasive measures. Where the speed limit commences at the village boundary, alongside the village nameplate sign, then these may be mounted onto the gateways. The combined sign should be located at the point where the speed limit starts, and it may be helpful if drivers can see housing at the same time as the signs, reinforcing the visual message for reduced speed. Further enhancement is possible with painted speed roundels on the road surface, although these need to be carefully considered as they are costly and often need replacing regularly. **(NOTE – repeater roundels are only to be used on certain classification of roads following discussions and agreement of the Council's Network Safety Team).**

Speed Reactive Signs

Vehicular Activated Signs (VAS)

In Norfolk there are currently over 600 static Vehicular Activated Signs (VAS) spread out across the county and these either warn of specific hazards such as bends and junctions or are implemented as part of measures to reinforce the speed limit.

Advances in technology have enabled these signs to be more compact, brighter and efficient. They can now be powered by a small solar panel or from an electrical feed. They can be linked to vehicle detection radar to tackle very specific issues as part of a package of speed management tools. They can also be activated by a separate thermal camera e.g. to only operate when someone is trying to cross the road. Across the county these signs perform very well and are also particularly useful in environmentally sensitive areas. Over familiarity with such signs by motorists can lead to the signs losing their intended impact and ultimately diminish their effectiveness. Therefore, the future use of VAS signs is now limited to raising awareness of hazards and should only be used when agreed by the Council's Network Safety Team.

Advisory Part-time 20 mph Speed Limit with Wig-Wags

These signs with the school warning sign and subplate stating 'School 20 when lights show' are mounted on a yellow backing board incorporating a set of wig-wag flashing lights. The 20 mph speed limit applies only at certain times of day and can be programmed with differing times up to two years in advance. These variable limits are particularly effective where for example a school is located on a road that is not suitable for a full-time 20 mph zone or limit, such as a major through road. The positives are that disruption and frustration to motorists is kept to a minimum and also at the time the signs are in use drivers can see the obvious dangers and appreciate the need to drive much slower.

Where Parish Councils request them for their local schools, the **Parish Partnership Initiative** is the recommended route. If their bid is selected, then the costs are shared equally between the Parish and the County Council. Alternatively, County Councillors can decide to use their highways **Local Member Fund (LMF)**.

Speed Awareness Message (SAM2)

Every year the County Council receives numerous Parish Council bids for these signs via the **Parish Partnership Initiative**. The SAM2 can be provided with or without a data recorder that can be downloaded and reviewed; the choice is down to the Parish Council. If the bid is successful the Parish Council is required to manage the SAM2, recharging the batteries, rotation of the SAM2 and general maintenance of the sign itself. An agreement is signed by both the Parish and the County Council.

These signs are portable temporary speed reactive equipment and are deployed throughout Norfolk in response to community safety concerns. The SAM2 system provides drivers with a flashing message asking them to slow down if they exceed the posted speed limit. These signs are placed on brackets that are secured to street furniture so that they can be moved from location to location to provide enhanced persuasion for drivers at perceived local problem sites. Sites are chosen by the Parish Council; the exact locations are agreed with the County Council and the manufacturer of the signs. National regulations require that the SAM2 is then erected at one of the locations and stays in place for up to 4 weeks and is then moved to another agreed location and so on, not returning to any of the sites for at least 8 weeks.

All locations chosen must be within a 20 mph or more generally a 30 mph speed limit. Although the SAM2 signs can work in 40 mph speed limits or above, we do not allow this for safety reasons. This is because safety of the volunteers erecting the signs must be protected and therefore erecting the sign at just above head height on an uneven verge next to traffic travelling at 40 mph or more is deemed too dangerous.

20 mph Zones and Limits

DfT guidance states that 20 mph zones and 20 mph speed limits should be self-enforcing, i.e. the existing conditions of the road together with measures such as traffic calming or signing, publicity and information as part of the scheme - lead to a mean traffic speed compliant with the speed limit. However, it should be noted that the use of traffic calming measures can result in potential increases in traffic noise and discomfort to bus passengers. To achieve compliance there should be no expectation on the Police to provide additional enforcement beyond their routine activity. The Police will investigate specific issues where a problem has been reported but not for general enforcement. Before any decision is made as to the most appropriate method of introducing a 20 mph scheme to meet the local objectives and road conditions, it is important to consider the full range of options available and their benefits. The introduction of a 20 mph speed limit has significant benefits to some and equally significantly disadvantages to others, therefore many factors need to be considered not just the needs of the local community.

Ultimately road safety for all users is paramount, but also important are the wider community, the economy, the environmental benefits and of course the cost required. 20 mph zones are predominantly used in heavily urbanised areas, but can be considered elsewhere in the county's larger Town Centres and residential areas, and in the vicinity of larger schools. They could also be used around shops, markets, playgrounds and other areas with high pedestrian or cyclist traffic, though they should not normally include roads where motor vehicle movement is the primary function. Under guidance in the **Setting Local Speed Limits** DfT Circular 01/2013, it now permits the placing of any of the following measures to support 20 mph speeds:

- **Repeater speed signs**
- **Speed roundel road markings**
- **Or a combination of both signs/roundels**
- **Traffic calming features**

> Only where speeds are already constrained to near the limit do we consider placing the speed limit sign or roundel marking, in addition to physical features within a zone.

Quiet Lanes

These lanes are intended to form a network of country lanes, suitable for use by walkers, cyclists and equestrians as well as by motor vehicles, with the aim of helping to preserve the character and tranquillity of rural areas and encouraging an increase in non-motorised users, while still maintaining vehicular access. The purpose is to make motorists more aware of non-motorized users and, over time, to reduce the number and speed of motor vehicles by changing the "hearts and minds" of local residents rather than lowering the speed limits or using physical traffic calming measures. The lanes are demarcated by

the use of small discreet signs. Norfolk and Kent were the first counties in the country to trial the initiative. We currently have two Quiet Lane areas within the county, one in North Norfolk and the other in South Norfolk, which were installed in the early 2000s. The funding required to develop, consult and implement Quiet Lanes means that any future schemes would require external funding.

On Street Parking

When considering the need for waiting restrictions, it is necessary to assess the potential impact on vehicle speeds, and managed parking could assist in speed reduction in streets. However, waiting restrictions should not be introduced where there is a likelihood that vehicle speeds would increase significantly or where the perceived traffic calming benefits would be outweighed by the increase in overall traffic speed/flow, creating a consequential reduction in the overall safety of vulnerable road users.

Speed Enforcement Cameras

Speed limit and traffic light enforcement cameras are an effective method of encouraging better compliance with speed limits and their use in Norfolk is detailed in the **Speed Enforcement** section.

The County Council supports the use of camera enforcement at appropriate locations and works closely with the Police under a **Safety Camera Partnership (SCP)**. An aim of the SCP is to offer educational courses as an alternative to prosecution for some speeding offences, and these courses generally receive positive feedback from those attending.

Community Speed Watch

Community Speed Watch enables volunteers to monitor the speed of passing vehicles using a hand-held speed detection device. The volunteers record the details of vehicles which are exceeding the speed limit. These details are forwarded to the SCP. A warning letter is then sent to the registered owner of the vehicle requesting them to reduce their speed. If the vehicle is seen and recorded again, a second and final letter will be sent. If the vehicle is monitored speeding again within the next 18 months, its details will be passed to the Police Community Engagement Officers for further action. This could include the vehicle details being sent to Roads Policing or the Safer Neighbourhood Team for targeted intervention or a visit. Only two to four volunteers are allowed to operate at one site at a time and they must be in plain view of vehicle drivers at all times with high visibility jackets.

PHYSICAL MEASURES

Pinch Points/Priority Give Ways

Priority Give Ways require one direction of traffic to give way to oncoming vehicles. The layout normally consists of a raised kerb and bollard in one half of the road, with a sign to explain the vehicle traffic priority. For the lane without traffic priority, there are Give Way markings and hatching on approach to the build out.

Contrasting Colour Surfacing

In view of the very high environmental impact of this measure and after subsequent maintenance costs it is considered that coloured surface treatment should not be used for traffic schemes, except when:

- recommended by the Network Safety Team when other collision remedial measures have been considered, have been considered and discounted or were tried but were unsuccessful
- completing surfacing work as part of a maintenance scheme and after checking with Network Safety Team that it is still appropriate

If, after further consideration, a coloured surfacing is deemed necessary (e.g. to emphasise School Zones or Village Zones), then only coloured aggregate within the surface dressing should be considered as a preferred option. In environmentally sensitive areas, consideration must also be given to the visual impact before using coloured surfacing. Coloured surface slurry treatments will not be considered acceptable due to their poor long-term performance, high initial cost and future maintenance costs.

Speed Tables, Humps and Cushions

Because of their physical presence on the highway, these measures have proved very successful in reducing vehicle speeds and collisions for vulnerable road users. However, they are very expensive and careful selection of the right type of physical measure is needed as there are a number of significant considerations and negative consequences, that include:

- increased maintenance costs
- increase in vehicular noise and vibration, particularly from HGVs
- can lead to an increase in emissions if drivers use inappropriate gears
- ‘urbanising’ effect on villages
- delaying blue light services
- some motor vehicle traffic is likely to transfer onto alternative routes, potentially causing a problem somewhere else
- speed humps, cushions and tables require street lighting unless they are part of a wider 20mph zone
- speed humps can be uncomfortable to emergency vehicles, bus passengers and for cyclists
- cars drive considerably faster over speed cushions than speed humps or speed tables
- cushions can be avoided by cyclists and motorcyclists
- drainage could be affected by humps and tables but not by cushions

Whilst it is accepted that the above disbenefits will not affect all residential roads, these physical measures should not be used unless all other options and measures have been considered and addressed first. If any of the above measures are ultimately considered appropriate, then the type chosen will depend largely on the needs of vulnerable road users and the type of traffic using the road in question.

For example:

- Speed tables should only be used at locations where there are high concentrations of particularly vulnerable road users* needing to cross the road. These provide a flush crossing point, offering benefits to the disabled.
- In locations where road humps are considered appropriate, they should be of a round top profile with tapered edges.

Low Traffic Neighbourhoods (LTNs)

LTNs give space over to pedestrians and cyclists by diverting motorists from quiet residential roads onto busier perimeter and arterial routes and prevent vehicles from using the roads as a short cut or to save time. They were first introduced in London as part of temporary measures to create more space for walking and cycling, to allow people to travel safely during the Covid pandemic. So far LTNs have been mainly used in urban areas. Given the knock-on effects, their use would also need to be carefully considered and studied, to predict what these may be and how to mitigate them, and several initial schemes have been removed.

LTNs can be created by closing off roads with bollards or planters and can be enforced with signs telling drivers not to use the streets. In some cases this can be backed up with Automatic Number Plate Recognition (ANPR) cameras to help enforce if necessary.

This is an area that we are looking at carefully, especially the positive and negative feedback from those LTNs already implemented around the country. External funding would also be required to develop the necessary feasibility study, installation and monitoring.

When considering construction of the above measures, the hierarchy of construction materials should be adhered to as shown in the **Highway Corridor** document. It should also be noted that there is very limited funding for the introduction of these types of feature. **NOTE: The County Council will keep the use of all physical traffic calming measures under review as road user behaviour, modes of transport and speed management outcomes develop over time.**

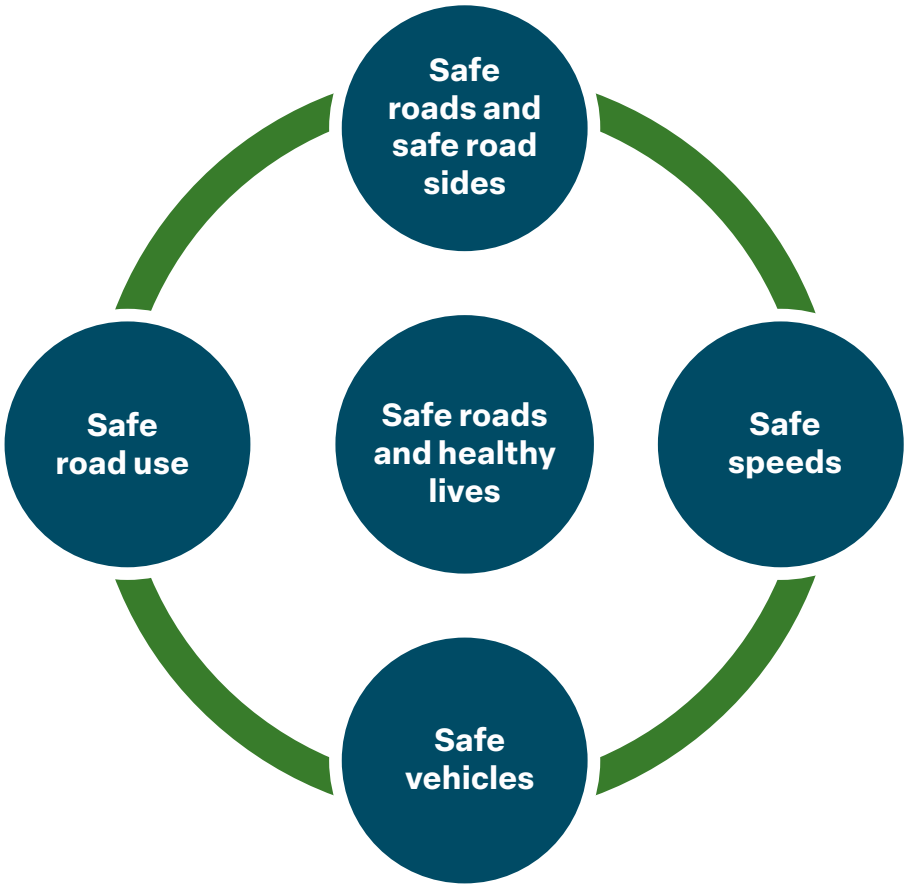
*See The Highway Code July 2022 Rule 207 for definition of particularly vulnerable users. High concentration areas include outside schools, care homes and hospitals.

7. Education, training and publicity

Introduction

Our strategy for the delivery of road safety education and training is underpinned by partnership working, using evidence and data within the Safe System approach framework (as shown in the diagram below). The Road Safety Team targets priority behaviours and groups across Norfolk with interventions and campaigns.

The Safe System Approach Framework



The Road Safety Team delivers, commissions and co-ordinates Road Safety Education and Training across schools and within community settings. Within the team, road safety co-ordinators, officers and assistants, support, commission and deliver high quality, behavioural change based interventions, to improve road safety across Norfolk.

All interventions are free at the point of delivery and provide an essential introduction to the Safe System Approach. They encourage patterns of positive behaviour, promote active travel and personal and community road safety culture. These sessions include practical skills like Bikeability which is led by a national framework. Other educational sessions such as: car seat, seatbelt and pedestrian safety all make reference to the speed of vehicles and encourage people to be safe road users and travel within safe speeds. The Road Safety Team also supports partnership road safety interventions lead by Norfolk Constabulary and Norfolk Fire and Rescue Service, to promote safe speeds and safe road users.

Details of the Road Safety interventions are available on the Norfolk County Council website.

For road users of Norfolk who hold full licences in any category, there is a wide range of courses available to enhance safety and economy whilst reducing emissions. These are delivered by the **Driver & Rider Development Team**, part of the Road Safety Team within the County Council. The team comprises road safety co-ordinators, officers and contracted DVSA Fleet Trained Approved Driving Instructors (ADIs).

The instructors have been carefully selected and trained to deliver a variety of schemes; many of them have their own specialities and the team as a whole has a wealth of qualifications and experience. The County Council invests time and resources in training the instructors; this helps us to maintain a motivated, skilled and focused team who deliver to a consistently high standard.

One intervention delivered by the team on behalf of Norfolk Constabulary is the National Speed Awareness Course. This **2 hours and 45 minutes** course is delivered online and in person and covers a range of subjects, including: speed management, hazard perception and driving more fuel efficiently, and is offered as an alternative to prosecution.

8. Speed enforcement

Introduction

Norfolk Constabulary supports the principles outlined in the Norfolk Speed Management Strategy as part of the Police's approach to collision and casualty reduction. Many studies have indicated speed is a factor in up to one third of injury collisions. The findings have many similarities, but their interpretation and any proposals vary.

Whilst there is no single solution and no simple solution, we need to, as far as possible, avoid complexities. Speed enforcement depends upon continued development of effective partnerships with the County Council, Magistrate's courts, schools and other partners. This approach must ensure that all avenues for speed compliance are fully exploited and that there is not a sole reliance on sanctions.

What is excess speed?

'Speeding' is not just exceeding a speed limit, but more commonly inappropriate speed. That is riding/driving within a legal limit but too fast for the prevailing conditions and circumstances. For example, not allowing for the volume of traffic on the roads or adverse road and weather conditions. Collisions involving excessive or inappropriate speed can often be attributed to a poor standard of driving.

Police approach

Our prime commitment is towards casualty reduction. Our strategy is focused upon:

- Specific Cluster Sites (where focus is upon manoeuvres and time/day)
- Core Routes (which change quarterly and are generally the main roads)
- Target Routes (small sections of road identified as a short-term site of interest).

Our approach is not to maximise the number of offenders we catch but to target collision locations with a balance of advice and education and as a final measure, enforcement. The level at which a prosecution will be initiated is dependent on the circumstances at the time. The Police Officer dealing with the offence will use their discretion and judgement and the **Constabulary's Speed Enforcement Guidelines** as to the most appropriate course of action.

NORFOLK CONSTABULARY
Our Priority is You

Norfolk County Council

Targeting

The number of drivers/riders prosecuted is, in itself, meaningless. We must all be satisfied that we are dealing with speeding where it really matters: where lives are being saved. There is a need to gather management information on collisions, identify hotspots, and target speed reduction resources accordingly. In other words, it is quality, not quantity that counts.

Targeting means making sure that enforcement action is directed primarily on those whose behaviour gives rise to the most serious risks, often at identifiable locations or identifiable circumstances. Like all other speed management measures, enforcement action must be focused and prioritised.

Speed Detection

Prosecution of drivers for speeding is no longer solely reliant upon Road Policing officers providing the evidence. The boom in technology has now not only enabled easier detection of speeding offences, but also the remote detection of them. Camera enforcement is simple, but expensive and resource intensive. Officers have a plethora of equipment at their disposal, handheld laser devices, VASCAR and other mobile detection devices, including mobile cameras.

Speeding is one of the 'Fatal Four' contributory factors in Killed or Serious Injury Collisions (KSIs). The other three are failing to wear a seatbelt, driving whilst using a mobile phone and drink/drug driving. Norfolk Constabulary uses various methods of speed enforcement; all have the simple aim of slowing vehicle speed down and therefore reducing the level of injuries in the event of a collision.

There are a number of fixed and mobile sites where safety cameras are used. All of the fixed sites and the vast majority of the mobile sites are locations where there is a history of KSIs. The remainder of the mobile sites are locations that have been identified in response to speeding complaints and safety concerns from concerned communities.

Police officers from Safer Neighbourhood Teams and Roads Policing also visit complaint sites with hand-held speed detection devices. This provides an opportunity to engage with motorists, to discuss road safety issues and voice the concerns of communities. Roads Policing officers are also tasked daily to visit locations that have had recent or current KSI collisions to present high visibility reassurance and to conduct fatal four enforcement.

An important direction for Norfolk Constabulary, working closely with Norfolk County Council, is the diversion from prosecution for driving offences to an educational course as an alternative to issuing a fixed penalty notice. **The National Speed Awareness Course** is run by the County Council and covers a variety of offences, including speeding.

Speeding Complaints

When either the Police or the County Council receive a complaint in relation to excess speed at a particular location, it will be acknowledged and considered. The collision database for the site and surrounding area will be investigated and any further information gleaned, if available. Where there is a demonstrable collision record, a study by the Council's **Highways Network Safety Team** in conjunction with the Norfolk Police Traffic Management Officer, would be appropriate to determine if any improvements to the road layout are feasible; the Police may conduct speed checks to assist with this process.

In all cases where further investigation is required, the complainant will be kept informed of our activities and findings.

Child Casualties

Studies of the conflicts between children and moving motor vehicles have shown inappropriate speed and social deprivation as particular features. We will support child education initiatives, particularly those within schools. We will support road engineering schemes and 20 mph limits near to schools although we acknowledge that only approximately 20% of child casualties occur on the journey to or from school.

National Speed Awareness Course

As described in the Education, training and publicity section above, this course is delivered by the County Council's Road Safety Team and covers a range of subjects from speed management to hazard perception and driving more fuel efficiently. Drivers/riders are also referred to the course as a diversion from a fixed penalty notice or attending court in certain circumstances. Attendance on the course benefits in many ways including an opportunity to educate drivers/riders on road safety issues.

Conclusion

Norfolk Constabulary is committed to working in partnership with the County Council and all partners towards reducing casualties on our roads. We fully support the use of traffic management techniques and calming measures to reduce vehicle speeds.

9. Summary

Through successful partnership with other agencies, the County Council remains committed to reducing the severity and number of people injured on Norfolk's roads. This revised Speed Management Strategy works to promote a local transport network that supports economic growth, remains a safe environment for all highway users whilst improving the quality of life in Norfolk's communities. This Strategy details the Council's aims and commitment to help reduce local safety concerns, explains the various approaches towards speed management in line with national guidance and other County Council policies, and identifies funding initiatives that have been introduced to assist with this objective (such as the Parish Partnership Initiative and the Road Safety Community Fund). The County Council's data-led approach is key in prioritising those locations across the county where the greatest casualty reduction benefits can be achieved. This ensures the County Council's resources are directed to where the greatest need exists to improve road safety.

The County Council's website page **Road Safety in Norfolk** provides educational content and advice for all highway users and is a great source of information, including **Safer Driving and Riding**, **Road Safety National Events Calendar** and the **School Streets Initiative** information. In addition, Norfolk Constabulary website offers advice relating to **Community Speed Watch, Safer Driving** and **Roads and vehicles** and other information which is equally valuable to highway users.

10.Appendix 1
Speed Management Improvement Measures

PERSUASION MEASURES

REF: 1
SPEED LIMITS (ALTERATIONS OR EXTENSIONS)
- Requires a traffic regulation order (TRO). This is a complex legal procedure that takes on average 12-18 months to complete.
- Extremely limited funding streams available for small scale TROs.
- Must meet the strict criteria of government guidance and Norfolk's Speed Management Strategy.

Funding Streams: RSCF, LMF

REF: 2
NEW WAITING RESTRICTIONS
(OR EXTENSIONS/ AMENDMENTS TO EXISTING)
- Includes single/double yellow lines with/out loading bans and can be time related and include parking, loading or disabled bays.
- Used to control parking and prevent unsafe or obstructive parking.
- All restrictions need a TRO, which can take 12-18 months to complete the legal process.

Funding Streams: RSCF, LMF

REF: 3
VILLAGE GATEWAYS
- Effective in reminding drivers they are entering a different environment.
- Erected in pairs of gateways - can include speed limit and parish name plate.

Funding Streams: PPI, RSCF, LMF

REF: 4

SPEED ROUNDEL ROAD MARKINGS

- Mainly used at speed limit terminals to highlight change of limit.
- Visual and work well to reinforce changes of speed limits and environments, especially in conjunction with other measures eg village gateways.

Funding Streams: LMF, PPI (as part of other measures).

REF: 5

SAFETY AWARENESS MESSAGING SIGNS (SAM2)

- A mobile battery-operated flashing speed sign.
- Needs repositioning by the Parish/Town Council every 4 weeks.
- Very popular and well received by towns and parishes.
- Town/Parish Council responsible for maintaining.
- Should be considered along with other measures if funded by RSCF.

Funding Streams: LMF, PPI (as part of other measures).

REF: 6

'PART-TIME ADVISORY' 20MPH SPEED LIMITS OUTSIDE SCHOOLS

- A school sign with flashing 'wig wag' lights – mains electric or solar powered.
- Programmable to operate at school busy times, AM & PM only.
- Able to program up to 2 years ahead
- An advisory limit so cannot be enforced.

Funding Streams: LMF, PPI (as part of other measures).

THINK!
Road safety in Norfolk

REF: 7

THINK! SIGNS

- A number of signs from the Government's former 'THINK!' campaign was retained by NCC.
- These are available to highlight various road safety issues.
- Should only remain in place for 3 months at a time as a temporary means of raising awareness of issues.

Funding Streams: Local Highways Area Team (LHAT).

REF: 8

SCHOOL KEEP CLEAR MARKINGS

- Only provided outside schools, in immediate vicinity.
- Can be new markings or extensions to existing ones, if supported by the school.
- Helps prevent dangerous/obstructive parking.

Funding Streams: Local Highways Area Team (LHAT).

REF: 9

VEHICLE ACTIVATED SIGNS (VAS)

- A static flashing sign – mains electric or solar powered.
- Aimed at addressing a specific safety issue/problem.
- Only now considered as a hazard warning sign – not to highlight speeding.

Funding Streams: Via the Council's Network Safety Team.

REF: 10

SPEED CAMERAS

- Particularly suitable for busy roads but can be contentious.
- Only installed at proven accident blackspot sites.
- Takes photo of vehicle/driver when exceeding the speed limit.
- Needs agreement with the Police and comply with DfT guidelines.

Funding Streams: Norfolk Safety Camera Partnership.

REF: 11

QUIET LANES

- Reduce the number and speed of motor vehicles, to improve the safety of pedestrians, cyclists and horse riders etc.
- Should not be considered on an individual road or in isolation; needs to be more zonal and covering several parishes.
- Not suitable if requiring physical traffic calming measures to reduce speeding traffic.

Funding Streams: External funding only and only if supported by LHAT.

PHYSICAL MEASURES

REF: 12

SPEED TABLES

- Effective at reducing speeds of all vehicles.
- Should only be used when all other options and measures have been considered and are believed to be inappropriate.
- Should only be used to aid as a crossing point for pedestrians/cyclists.

Funding Streams: LMF, RSCF, or PPI and only if supported by LHAT.

REF: 13

SPEED CUSHIONS

- Often provided in clusters of pairs along a length of road.
- Effective at reducing vehicle speeds.
- More preferable than speed tables on bus routes and for cyclists.
- Normally used in residential areas or local distributor roads.
- Doesn't affect drainage
- They can attract localised complaints regarding noise and vibration to nearby buildings.
- These measures are both disruptive and expensive to construct.

Funding Streams: LMF, RSCF, or PPI and only if supported by LHAT.

REF: 14

PRIORITY ROAD NARROWING

- Normally used in residential areas.
- Can assist pedestrian crossing and control of parked cars.
- Can be used at junctions and target a specific part of the road.
- These measures are both disruptive and expensive to construct.

Funding Streams: LMF, RSCF, or PPI and only if supported by LHAT.

REF: 15

PRIORITY GIVEWAY SYSTEM

- An alternative 'last resort' consideration to other measures.
- Motor vehicles with priority are not required to reduce their speed.
- Motor vehicles without priority are not required to reduce their speed if there is no oncoming vehicle approaching.
- May incur delays during increased traffic flow.

Funding Streams: LMF, RSCF, or PPI and only if supported by LHAT.

REF: 16

LOW TRAFFIC NEIGHBOURHOODS

- Prevents through traffic (i.e. access only) thereby reducing numbers of vehicles and their speed.
- Improves road and pedestrian safety and reduces vehicle emissions/ air pollution.
- Encourages more walking, cycling and on-street activities.
- Can include physical measures e.g. bollards, gates, cycle contraflows and planters.
- Should only be used when there are suitable alternative vehicular routes.
- Aligns with NCC's Environmental Policy and DfT Gear Change.
- Can be controversial as well as beneficial, therefore locations need to be carefully considered.

Funding Streams: External funding only (e.g. Active Travel) and only if supported by LHAT and LCWIP.

Key to Funding Streams

RSCF – Road Safety Community Fund
LHAT - Local Highway Area Team
LMF – Local Member Fund
PPI – Parish Partnership Initiative
LCWIP - Local Cycling & Walking Infrastructure Plan

Norfolk County Council